Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Progress in Disaster Science 10 (2021) 100163

Contents lists available at ScienceDirect

Progress in Disaster Science

journal homepage: www.elsevier.com/locate/pdisas

Regular Article

COVID-19 in India: Who are we leaving behind?

Emmanuel Raju [a,b], Anwesha Dutta [c,*], Sonja Ayeb-Karlsson [d,e]

[a] Global Health Section, Department of Public Health & Copenhagen Centre for Disaster Research, University of Copenhagen, CSS, Øster Farimagsgade 5, 1014 København K, Denmark
[b] African Centre for Disaster Studies, North-West University, Private Bag X6001, Potchefstroom, North West Province 2520, South Africa
[c] Christian Michelsen Institute (CMI), P.O.Box 6033, N-5892 Bergen, Norway
[d] University of Sussex, School of Global Studies, Arts Road Building C, Falmer Brighton, BN1 9SJ, UK
[e] United Nations University – Institute for Environment and Human Security, UN Campus, Platz der Vereinten Nationen 1, D-53113 Bonn, Germany

ARTICLE INFO

Article history:
Received 21 January 2021
Received in revised form 18 March 2021
Accepted 23 March 2021
Available online 24 March 2021

Keywords:
COVID-19
India
Informal settlements
Migrants
Public health
Slum wellbeing
Human rights
Vulnerability

ABSTRACT

The COVID-19 pandemic has uncovered and intensified existing societal inequalities. People on the move and residents of urban slums and informal settlements are among some of the most affected groups in the Global South. Given the current living conditions of migrants, the WHO guidelines on how to prevent COVID-19 (such as handwashing, physical distancing and working from home) are challenging to nearly impossible in informal settlements. We use the case of India to highlight the challenges of migrants and urban slum dwellers during the COVID-19 response, and to provide human rights-based recommendations for immediate action to safeguard these vulnerable populations.

1. The COVID-19 lockdown in India

The year 2020 will forever be remembered for the 2019 Coronavirus (COVID-19) and its impacts upon the world. Different governments have adopted different strategies to respond to the pandemic such as lockdowns and closing down their national borders. We have even seen world leaders denying the seriousness of the pandemic and calling it 'fake news' or a 'media hoax' [28,39,52]. These narratives can have serious implications upon our society and particularly for the poor. The world's COVID-19 response with regard to people living in informal settlements, migrants, refugees and other ultra-vulnerable populations has been slow and inadequate. It reiterates serious concerns about health inequality, as well as people lacking human rights and dignity including access to basic services and infrastructures to survive the pandemic. Following the global trend and given the rising number of COVID-19 cases reported globally and in India, the Indian government announced a sudden and complete lockdown of the country on the 25th March 2020. At time of writing, the lockdown was slowly being relaxed in several phases across Indian states, while the rate of infection continued to grow. In 2020, India was witnessing an exponential increase in COVID-19 infections. The country currently has the third most reported cases in the world with over 10 M infected people. The reported infection and mortality rates are suggested to merely represent the tip of the iceberg due to the limited testing, tracing and uncertainties around registered causes of death [19]. A country where well over 80% of the population works in the informal sector [33], the lockdown amounts to a substantial shutdown of economic activity. The International Labour Organisation has stated that "*in Low- and Middle-Income Countries, hard-hit sectors have a high proportion of workers in informal employment and workers with limited access to health services and social protection*" ([34], p.2). A study undertaken across two major slums in the cities of Lucknow and Kanpur in Uttar Pradesh found that the lockdown severely impacted economic activities. 79% of households reported that at least one family member had lost their income source due to the economic shutdown, and additionally 56% experienced a decline in their incomes when compared to before the crisis [5].

Without appropriate policy measures, casual workers will face a high risk of falling into poverty and will experience greater challenges to regain their livelihoods during the recovery. In this article, we use the case of India

* Corresponding author.
E-mail addresses: eraju@sund.ku.dk (E. Raju), anwesha.dutta@cmi.no (A. Dutta), s.ayeb-karlsson@sussex.ac.uk (S. Ayeb-Karlsson).

http://dx.doi.org/10.1016/j.pdisas.2021.100163
2590-0617/© 2021 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

to illustrate some of the challenges of urban migrants and people living in informal settlements[1] (or slums) during the COVID-19 response, and recommend effective measures for action, also keeping in mind future disasters and pandemics.

2. Increased COVID-19 risk in urban informal settlements

The UN-Habitat recently reported how the impact and spread of COVID-19 have centered around urban areas. Over 1430 cities in 210 countries across the world are affected so far. According to the investigation, over 95% of the total COVID-19 positive cases can be found in urban spaces [70]. As of May 2020, the four megacities in India; Delhi, Mumbai, Chennai and Kolkata, comprised 40% of the total cases in the country [76]. Although the pandemic manifests an urban universality, some cities are more vulnerable. Yet scholars have highlighted a severe lack of data regarding slums. This includes estimates of residents dwelling in informal settlements (which tend to vary significantly) and the dearth of information both prior to and during emergencies or shocks [75]. Health data also remains scarce, including around distribution of risk factors, such as people with cardiovascular diseases, that would increase both susceptibility to and impact of COVID-19. Urban areas in the global south, such as cities in India, are more susceptible to the pandemic due to a variety of reasons including high population density, informal employment or income structures, and weak health services. Urban slum populations generally face all these risk factors [42]. An essential feature of India's urbanisation has been the proliferation and persistence of informal settlements dotting their way through rapidly expanding urban centres. The 2011 census data show that one of six urban Indians resides in a slum. These slums are often in close proximity to open drains or sewers. Furthermore, over 35% of slum households do not have access to clean drinking water [23]. Urban slums in India's mega cities are "*a tale of two cities within one city*" ([31], p.240). One part of the urban population reaps the benefits of urban living while the other 'squatters' in poor and compromised living conditions. These living conditions are at times even worse than their rural counterparts [31]. Slums have been determined as 'unhealthy places' with a high risk of infectious diseases and injury [29]. (Over)crowding can result in increased transmission of infectious diseases, such as pneumonia, diarrhoea, and tuberculosis [71]. An outbreak of the contagious COVID-19 virus will therefore be deeply challenging to contain in most informal settlements of the Global South. This is because slums tend to be overpopulated and characterised by inadequate access to water, sanitation, waste management and healthcare services [65]. This often leads to poorer health outcomes on top of the inadequate housing [60]. A large proportion of the residents in informal settlements frequently suffer from chronic illnesses such as respiratory diseases, cancer, tuberculosis diabetes, and obesity. Research highlights that these pre-existing conditions may increase the impact COVID-19 could have on people's health and wellbeing [41, 77]. These comorbidities have the potential to further exacerbate the impacts of a pandemic and make slum dwellers more vulnerable to COVID-19. The negative health outcomes are aggravated by notions of illegality and socio-economic exclusion that slum dwellers face [7,9,29].

In terms of the infection itself, initial reports from the slums suggested low COVID-19 positive rates which subsequently were negated through seroprevalence surveys that were carried out across several slums in major Indian cities. For example, a study estimating the seroprevalence across representative slum and non-slum populations in the city of Mumbai, found that the positive test rate for IgG (immunoglobulin) antibodies to SARS-CoV-2 N-protein was 54.1% in slums and 16.1% in non-slums [40]. Similarly, seroprevalence was found to be 57.9% in DJ Halli slum in Bangalore where higher prevalence of comorbidities such as diabetes at 35.5% and hypertension at 16.6% exist [78]. The authors however urge for caution regarding actual discrepancy since slum residents more seldom tend to seek medical attention [30].

Indian cities are described as dualistic in nature, composed of 1) the formal or *Static City* (of architecture and the elite), and 2) the informal or *Kinetic City* (of motion) [79]. The informality for the urban poor is *"a calculus for charting and dealing with uncertainty"* ([80] p.181). This refers to a range of behaviours and practices that are not regulated, nor controlled, by the state or formal institutions, including those related to income generation and service provision. To the urban poor, the informality, however, extends to deep uncertainty around access to public spaces, services and procurement [20]. Furthermore, it is widely-known that informal settlements are among the most vulnerable locations to disasters whether triggered by natural or biological hazards (such as the COVID-19 pandemic). People's vulnerability and inability to respond to stress is often rooted in social inequality, poverty (and informal employment), social exclusion, stigma, and mistreatment that lead to strained physical and mental health [7,9,64]. In India, social factors such as marginalisation due to caste increase people's vulnerability [17,36]. Research studies show that negative health outcomes can be aggravated by stigma and discrimination due to certain health conditions, such as mental ill-health [38]. Social exclusion and discrimination put already vulnerable people at risk in extraordinary times such as now with the COVID-19 pandemic. The pace of urbanisation in the Global South puts challenges on the ability of urban systems to deliver the aims of the Sustainable Development Goals (SDGs) – including for sustainable cities and communities (SDG11) and for inclusive health and wellbeing (SDG3). Urban theorists, such as [81], claim that cities are more than physical spaces. Nonetheless, few development efforts aim to address urban planning failures or seek solutions to reduce social vulnerabilities (pre-existing as well as upcoming). The lack of attention to urban (and social) vulnerabilities during the COVID-19 outbreak is already proving fatal in India as well as in other Lower and Middle Income Countries [57,75].

Informal settlements in India are legally structured into slums recognised by the government as notified versus non-notified slums.[2] This classification results in differential access to essential services and outcomes relating to health, sanitation, and education [4,48,67]. Approximately 59% of slums in India are non-notified, alienating its residents from accessing critical services [47]. Most people living there are forced to come out of their homes and neighbourhoods to access basic human rights such as water and sanitation. The 2011 Indian census data showed that 26% of slum dwellers have to search for drinking water outside of their homes. Over half of them are forced to collect drinking water more than 100 metres away from their houses. Most of them also resident in one-room dwellings. Research studies in Mumbai's Kaula Bandar slum, for example, show that the lack of access to water has severe implications on people's health, livelihood productivity and income [67]. Despite the growing empirical evidence focusing on the increased amount of people exposed to urban disasters [82], disaster risk management planning (including for pandemics) often proposes inadequate and narrow disaster responses [58]. These responses tend to overlook fundamental problems, risks and vulnerabilities (often induced by development planning) including access to resources such as water, sanitation and health care.

Continuous and careful handwashing to prevent COVID-19 is not always an option for people due to these living conditions. Many slum dwellers lack access to drinking water and do not possess soap. Hand sanitizers are luxury items that people cannot afford. As slum households are lacking access to running water, people are forced to walk through narrow pathways to reach the nearest water sources. These slum pathways are often not even two meter wide making the recommended physical (or 'social') distancing guidelines impossible to follow [57]. Physical distancing

[1] Slums or Informal settlements "*are residential areas where 1) inhabitants have no security of tenure vis-à-vis the land or dwellings they inhabit, with modalities ranging from squatting to informal rental housing, 2) the neighbourhoods usually lack, or are cut off from, basic services and city infrastructure and 3) the housing may not comply with current planning and building regulations, and is often situated in geographically and environmentally hazardous areas*" (UN HABITAT 2015, p. 2), see: https://unhabitat.org/sites/default/files/download-manager-files/Habitat-III-Issue-Paper-22_Informal-Settlements-2.0%20%282%29.pdf

[2] The PDS is a system of management of scarcity through distribution of food grains at affordable prices. Over the years, PDS has become an important part of Government's policy for management of food economy in the country.

is a critical response to the pandemic, but it assumes that people have adequate space, services and social safety nets to apply such guidelines.

The COVID-19 response guidelines advocated by different governments and international organisations include 'working from home'. What defines the *'ability'* to work from home is, however, unclear. Working from home requires a safe and sustained income. This is something most slum dwellers in India do not possess. People in informal settlements depend on day labour and casual work. Moreover, their work is often carried out hands-on and in person which make it difficult for them to continue working while following physical distancing regulations. Similar to the informality of the settlements, people's employment and economy are founded within the informal labour sector. Research suggests that physical distancing lowers the spread of COVID-19 but not everyone can afford the luxury of working from home or not at all [22,74]. Restricting people's movements often result in constraining their economic opportunities. These restrictions will have severe health and wellbeing impacts on already poor and vulnerable populations (such as those working in the informal sectors without secure employments). Many fragile populations, including slum dwellers, cannot make economic sacrifices as they would leave them starving. For the poor, tending to livelihood activities, ensuring an income, and food security, represent more of a concern than the possibility of contracting COVID-19.

Gender disparities coupled with mental health consequences are increasing with the pandemic as women are having to bear more unpaid work [15]. This adds pressure upon the already fragile social and financial state of these urban spaces. It also ties into issues of food insecurity. People are having to choose between facing an increased COVID-19 infection risk and starvation. Moreover, governmental support services, such as money and food, provided by the Indian government have been slow and insufficient. The deliveries made through the Public Distribution System (PDS) to these informal settlements in the cities resulted in large queues and congested lanes. This can increase the infection spread. Adding to the concern, the India Meteorological Department estimated that the summer of 2020 was warmer than usual in many parts of India [54]. Most informal settlements have erratic or starved electricity connections. It is therefore difficult to anticipate that people will stay indoors without sufficient airflow or inadequate ventilation that exposes them to heat risks. It becomes imperative to take cognisance of and address the stark reality of urban inequality and future hazards while addressing the current pandemic [56].

3. The plight of migrant workers

The lockdown in India might have contained COVID-19 (for now), but it also created another sort of humanitarian crisis through the millions stagnated inter-state migrant workers. The majority of Indian migrant workers live in informal settlements. Seasonal and temporary migrants often move to settlements built around industrial sectors such as garment factories or construction sites. These temporary living arrangements are sometimes shared with relatives and social networks, other times accommodation is provided by the employer. Recent research studies carried out in Mumbai indicate that these "*units have an average of seven to eight workers who live and work in cramped spaces with no fire exits and surrounded by hazardous chemicals and machines*" [50].

A large part of these urban seasonal and temporary migrant populations are socially vulnerable people fleeing poverty – in search for a better life. Caste plays an important role in India's social stratification. Social marginalisation and exclusion of 'lower' castes therefore often prevent people's development and progress. For example, people of 'lower-castes' are restricted access to resources and institutions which turn into a vicious inescapable circle of poverty [17,63]. Adding to this, people on the move tend to lack access to affordable and stable healthcare services, and often live in unsafe conditions that increases their vulnerability to health risks [9,29]. Similarly to the characteristics of slum settings, these living and working conditions can be catastrophic for the spread of infectious diseases [63].

Millions of people lost their only source of income as the COVID-19 lockdown closed down many industries and street operations across India. The lockdown also introduced new travel, transport and physical distancing regulations. These new rules did not only prevent people from working but they also left migrants stranded in their current locations. The Public Distribution System in urban areas also proved to be low (about 50%) leaving many urban poor without food sources [62]. There is an urgent need to "e*xpand the list of eligible households*" during the pandemic [62].

Over 80% of people in India are employed within the informal sector [33]. Most of these jobs include temporary and seasonal work such as construction work, food- and street vendors, and rickshaw pullers. A majority of casual workers in urban areas are men tending to seasonal or temporary migration for work [8, 55, 84]. Adding to this, few research investigations explore the impacts upon women who were left-behind while becoming temporary (single) household-heads in the rural areas. Remittances play an important role in their survival and daily life. The COVID-19 crisis and lockdown will therefore have impacted the entire migrant household through their reduced or lacking incomes. It is likely that food insecurity and financial hardship extended from the stranded migrants to their female-headed households [21]. This could also have an impact on the incidence of debt. It differs across states, however, data from an Action Aid study with informal workers indicates increasing incidence of debt during the lockdowns in some states [2].

The National Commission for Women in India reported a 94% increase of domestic violence cases during the lockdown [46]. Adding to this, migrant workers forced to walk hundreds of miles back to their villages were sometimes accompanied by pregnant spouses having to give birth along the way [45]. As a result, some women died due to the lacking maternal health services [46]. The COVID-19 crisis has further aggravated the deprivation and denial of neonatal healthcare, psychosocial support and inadequate nutrition to migrant women and children. Additionally, the government is yet to propose a comprehensive preparedness or response plan targeting women at risk of domestic abuse. Female employees in the informal work sector risk losing their work and income. This potential loss of recourses and access to the outside world could make them more susceptible to domestic violence. Research also outlines a link between increased financial hardship and domestic abuse in general [25, 85].

Approximately 62% of the wage employees are casual wageworkers[3] that have fallen between two stools in regard to paid leave, insurance and employment rights [32]. The Indian Finance Minister announced a COVID-19 support package on 26th of March 2020 to support vulnerable workers. As part of this package, the Indian government provided direct cash transfers through the existing scheme of *Prime Minister's Garib Kalyan Yojana*[4] to poor households. This money was targeting the elderly, widows, poor women and disabled and covered three months of advance payments to mitigate the immediate fall outs of the lockdown. However, a recent study by Pande et al. [49] found that more than half of poor women in India were likely to be excluded from the cash transfer program. One out of five poor women resides in households that lack ration cards (a document that grants access to the food distribution system). Those who lack ration cards are also excluded from other alternative poverty support provision of cash or food. Besides this, the *Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund* was created to solicit donations to help those in need. Individual states within India are carrying out relief

[3] A person who is casually engaged in another person's farm or non-farm enterprise (both household and non-household) and, in return, has received a wage according to the terms of the daily or periodic work contract is a casual wage labourer. (As defined in the NSSO, 2014: Employment and Unemployment Situation in India, NSS Report No. 554(68/10/1), NSS 68th Round, July 2011– June 2012 (Ministry of Statistics & Programme Implementation, Government of India).

[4] The Prime Minister's Garib Kalyan Yojna, started in 2016 was aimed at gathering "black"money through penalties and the deposits collected would be used for schemes of irrigation, housing, toilets, infrastructure, primary education, primary health, livelihood. For more information, see: https://www.business-standard.com/article/economy-policy/new-income-declaration-scheme-explained-116112800654_1.html

operations largely consisting of cash transfers and distribution of food. These provisions, however, have been inadequate. Investing in social protection measures and systems during normal times have proven useful in states such as Kerala. Other urban local governments must follow by presenting similar development visions in the aftermath of the pandemic. Only by building robust social protection systems capable of timely local, national and international action will countries be able to fully recover after a disaster [53]. The upcoming COVID-19 recovery must be seen as an opportunity to reflect critically on the responses of cities and urban areas to the pandemic. It is clear that upcoming development efforts must be more inclusive.

Many migrant workers are not formally registered to avail support through these schemes forcing them to depend on NGOs. The majority of migrant workers do not possess the voter identification- or ration cards registered to their temporary addresses that would allow them to access the Public Distribution System [3, 86]. "*In the absence of such proof, internal migrants are unable to claim social protection entitlements and remain excluded from government sponsored schemes and programmes*" ([3], p.8). The Uttar Pradesh local government assured a one-off cash transfer of 1000 INR (roughly $22) to its residents. This was barely enough to feed a family of five for five days. Furthermore, the state seems to be lacking data on their current informal sector workers, such as rickshaw pullers, construction workers and street vendors [66]. The local government in Delhi (and in other places) urged employers to continue paying wages and property owners to avoid evictions, but this mere appeal without sanctions did not result in action [18]. Safeguarding measures for these unregistered migrants will be challenging but must be put in place. As soon as the lockdown was announced, a large number of migrant workers in the cities rushed to the trains and buses seeking to get home. This further heighted the risk of the COVID-19 spread in urban as well as rural areas that were already battling insufficient healthcare services [13]. Media captured images of overcrowded train- and bus stations filled with thousands of people trying to purchase tickets. Given the physical distancing guidelines, the sudden lockdown may have caused more harm than good as some individuals in these crowds were likely to already have been infected [14]. Those who failed getting on the last transportation services, started their long journey home by foot. Some of them were forced to walk over hundreds and in some instances even over a thousand kilometres to get home. Reports indicated how people collapsed along the roads due to the heat and lack of resources such as food, water and shelter. People were hindered by restricted passages and barricades aimed at reducing infection spread. However, as people ended up 'trapped', homeless, and forced to wait in large crowds on the 'wrong' side of the blockades, the measures may have increased rather than decreased the COVID-19 spread [87]. An incident in Uttar Pradesh described how a group of walking migrant workers were forced to squat along the road and sprayed with harmful disinfectants by health worker sanitation teams. [12]

Migrant workers faced systematic discrimination before the pandemic including prejudice and stigmatisation resulting in difficulties to, for example, rent accommodation [1]. It is clear that "*pre-pandemic disparities across settlements in levels of infrastructural development inform the types of local challenges to social distancing noted by surveyed slum leaders*" ([6], p.2). The structural human rights violations captured in videos and images during the pandemic outlined glimpses of the lack of empathy and human dignity faced by the migrants during the lockdown [12]. The existing forms of structural vulnerabilities of migrants before the pandemic has been further exacerbated due to stigma [14]. During the pandemic, historical labour right violations and lack of social protection ended up putting migrant workers further at risk [35]. Meanwhile, the failure to provide people with adequate evacuation strategies or alternative ways to get home safely left them with no other option than to start walking. These harsh measures resulted in social tension triggering conflict partly related to the despair people felt around the lacking safeguarding measures. As soon as the first phase of lockdown was extended, images started pouring out from Mumbai illustrating migrants gathering in large numbers to seek transportation services to get home [69]. It is still not clear whether the government's C-19 relief package supports migrants sufficiently. This was manifested in the mass exodus from cities towards people's respective villages.

There need to be a clear distinction between previous social protection programmes and the immediate COVID-19 relief responses put in place. Unprecedented times require unprecedented solutions. Steps must be taken to ensure the health, safety, dignity and protection of all of India's (and the world's) migrant workers. The COVID-19 pandemic is far from over. Meanwhile, the lack of social protection systems supporting vulnerable urban populations has exaggerated health and wellbeing impacts across the globe. The pandemic will have severe impacts on the chance of urban local governments to meet the SDGs. It is well known that disasters may not only set back development progress, but they also tend to lay the ground for new momentums of change and policy transformations. In this case, COVID-19 represents a unique global opportunity to build better cities. The COVID-19 recovery phase must allow space for local support networks to collectively grow and increase their capacities to respond to similar emergencies in the future. The importance of this can be observed in the success stories of the pandemic, such as in the rapid responses in some favelas of Brazil or in urban informal settlements of Delhi and Mumbai in India [16,68,73]. These included the fast delivery of food and Personal Protective Equipment (PPE) to people living and working in the slums. People have inherent capacities which are manifested in various ways during difficult times [61]. In Kerala, civil society organisations have been able to provide services through the many volunteers (described as a "volunteer army") [27]. Across the world, volunteers have come forward during the pandemic to support the response efforts. Youths in the slums of Nairobi, for example, have used murals to communicate important messages during the pandemic to counter misinformation [72]. Another example of a local success story is the remarkable containment of the spread of COVID-19 in Dharavi, home to approximately one million of Mumbai's slum residents. Research show that slum-leaders continued their role as problem-solvers during the pandemic [6]. Cities represent social networks just as much as spaces. Slum-residents rely on each other and their social capital during 'normal' times as well as in crisis situations [51, 88]. These social networks play an important role in supporting people during crises. As Mumbai's private health system collapsed due to the exponential pressure from the rapid rise in COVID-19 cases, a collaboration was formed between the municipality and local low-cost private-health practitioners. This effort eventually managed to cap the spread of the coronavirus in the Dharavi settlement [10,11,16].

4. Moving forward

Ultra-vulnerable groups during the COVID-19 pandemic (illustrated in this article with India as an overarching case study example) include those depending on casual work. Casual workers cannot afford to refrain from work, nor do they have the option to work from home. Migrant workers often livel day by day without savings or assets to buffer them against income losses while falling outside of social benefit systems. People on the move and residents in informal settlements also tend to struggle to access healthcare services. We must look at countries such as Portugal for inspiration here who have decided to temporarily grant migrants and asylum seekers full citizen rights throughout the COVID-19 pandemic [43,59]. These safeguarding and protection measures ensure that *everyone* can access free public healthcare facilities. Closer to India, the Malaysian government has urged paperless immigrants and foreigners lacking travel documentation (including the Rohingya refugees) to approach health centres carrying out COVID-19 tests [24]. Migrants in Thailand, regardless of their legal status, are similarly entitled to safe COVID-19 treatment covered by the Migrant Health Insurance Scheme and the Social Security Fund [13].

All human beings have the right to a dignified and secure life free of the threat of disease, displacement, family break-up and risk of death. These human rights are organised into the right to safe food, drinking water, sufficient sanitation, adequate housing, healthy working conditions, and

the right to prevention, treatment and control of diseases, as well as available, accessible, and acceptable public healthcare facilities [89]. The *Global Compact for Migration* also particularly '*intends to reduce the risks and vulnerabilities migrants face at different stages of migration by respecting, protecting and fulfilling their human rights and providing them with care and assistance*' ([90], p.3). We must ensure that these human rights frameworks, already put in place, are followed throughout the COVID-19 pandemic. In some countries, such as in Singapore, the poor dwelling conditions of urban informal settlements resulted in an upsurge of COVID-19 cases among migrant workers [37], which was addressed quickly. National governments worldwide can support these fragile urban areas through the support of bottom-up approaches. These must include, but are not limited to, the mobilisation of grassroots leaders, youth groups and existing committees to communicate key health messages, spread awareness and ensure effective welfare measures through local expertise [26,75]. This will ensure people-centred participation in both containment and management of the pandemic while making the process inclusive rather than hierarchical, arbitrary and top-down. Following the 2015 SDGs, a new urban agenda was adopted in 2016 representing a collectively shared vision for the urban centres of the world. This was a call to turn cities more inclusive and provide equal opportunities for all its citizens. In order to move forward, urban planning strategies and implementations need to better consider the targets of the SDGs. The pandemic has shed light on existing social inequities and further emphasised the need for urban planners to better incorporate risk and work from more people-centred perspectives.

As the pandemic continues to unfold, and vaccines are being rolled out, it provides an opportunity to reflect and adapt best practices from across the world to the local context. South Indian Kerala, for example, has already outlined a positive progress of organising community kitchens, escalating testing through kiosks, delivering food to *anganwadi*[5] children (as that often is their only meal for the day). The Supreme Court of India also passed a directive urging state governments to mobilise local leaders across faiths to visit quarantine centres and shelters to provide migrants and other vulnerable groups with counselling while reducing anxiety related to fear and deep uncertainty.[6] Establishing more trusted partnerships with people on a local level (while working against physical and psychological abuse and corruption) will pave the way for more people-centred policies, budget allocations and widen collective communication channels now as well as in the future.

Moving forward, we propose the following urban safeguarding measurements, recommendations and action points:

- Increasing the effectiveness and reach of the COVID-19 welfare, relief, and recovery schemes, to ultra-vulnerable groups including migrants, 'trapped' populations, and people residing in urban informal settlements.
- Setting-up mobile clinics in close proximity to vulnerable locations to provide immediate testing, isolation and treatment of people who test positive.
- Ensure free and rapid vaccine access to all including the ultra-vulnerable.
- Improving access to water and sanitation, food and adequate shelter, and transportation facilities within urban areas. These efforts ought to be ensured throughout the pandemic as well as continued in its aftermath while focussing on achieving the SDGs.
- Supporting people on the move as well as those who find themselves stranded in urban areas, or 'trapped' en route, safe passages home to their families and loved ones.
- Targeting weaknesses in the disaster response capacities of urban local governments and strengthen their ability to better respond to emergencies in the future.
- Identifying vulnerable groups and creating inclusive city level COVID-19 response plans led by local leaders, entrusted figures that closely collaborate with urban local governments.
- Investing in city level public healthcare systems, that provide health services in normal times, to increase their capacity to respond to unprecedented moments.
- Involving urban disaster planners in the design and development of cities in the future to avoid building in unnecessary urban disaster risks.
- Reducing urban social inequalities by expanding access to social support systems and public health services in a collective and participatory way.
- Allocating resources and support to local urban support bodies and NGOs to provide basic human rights for all including safe food, drinking water and sufficient sanitation, adequate housing, and prevention, treatment and control of diseases, as well as public healthcare facilities.

5. Conclusion

The COVID-19 developments in India delicately illustrate how protection of migrants and other ultra-vulnerable urban populations have fallen between two stools. The lockdown should have been planned carefully and communicated more effectively in order to avoid unnecessary psychological stress and traumatic experiences. The distubring media images of Indian migrant workers forced to walk the long way home due to the sudden closures of state borders and transportation services should not be forgotten. In these extremely uncertain and difficult global times, certain urban country contexts require particular attention. Given the size and spread of the pandemic, safeguarding ultra-vulnerable populations throughout the lockdown's health and safety guidelines comes with considerable logistical challenges. The deep uncertainties around the upcoming timespan, developments and the ultimate effects (financial, social, psychological) of the COVID-19 crisis will make it difficult for governments to adequately support ultra-vulnerable populations, but we cannot give up. '*Building back better*' will require all national governments to support their citizens in the best way possible, and especially those people squeezed into fragile and cramped urban areas while lacking access to water, sanitation and healthcare services.

The global COVID-19 response and recovery will require countries who have resources to spare to invest them in supporting country contexts and populations that are struggling. It is clear that the overall COVID-19 guidelines have proved to be inadequate in certain fragile settings involving ultra-vulnerable populations. As this article illustrates, these include but are not limited to people on the move and residents in urban slums. Nobody should ever be forced to choose between whether to drink or wash their hands with limited sources of clean water, but even less so throughout a pandemic. These are not COVID-19 founded issues, but continuous denial of people's basic human rights that extends into poor urban policies and city planning. Every human being must be able to access water, food, shelter and acceptable public healthcare facilities. In this way, the COVID-19 pandemic has revealed (and exaggerated) social marginalisation and vulnerabilities within our societies, and particularly in densely populated cities, across the world. The response to the pandemic must include access to health and welfare measures for all – not further the stress for those already vulnerable. The only sustainable way forward is to protect and safeguard ultra-vulnerable people through a human rights-based approach. A useful lens to achieve a new future that aligns with our shared vision for the urban centres of the world.

Credit author statement

Emmanuel Raju led the conceptualisation of the manuscript. Emmanuel Raju, Anwesha Dutta and Sonja Ayeb-Karlsson contributed subsequently to the writing. Emmanuel Raju, Sonja Ayeb-Karlsson, Anwesha Dutta took equal part in the revising the submission.

[5] "*Anganwadis are the focal point for implementation of all the health, nutrition and early learning initiatives under*" Integrated Child Development Services Program in India. For further information, see: https://womenchild.maharashtra.gov.in/content/innerpage/anganwadi-functions.php

[6] Writ petition Nos. 468/2020 and 469/2020, see: https://www.mohfw.gov.in/pdf/SupremeCourtOrderonmigrants.pdf

Declaration of Competing Interest

The authors declare no conflict of interest. This research did not receive any specific funding from agencies in the public, commercial or not-for-profit sectors.

The authors declare no competing interest.

References

[1] Aajeevika Bureau. Unlocking the urban: reimagining migrant lives in cities post Covid. Udaipur: Aajeevika Bureau; 2020 available at https://www.aajeevika.org/assets/pdfs/Unlocking%20the%20Urban.pdf (Accessed 8th March 2021).

[2] Action Aid. Workers in the time of COVID-19 round II of the National Study on Informal Workers 1 State-wise Compendium. available at https://www.actionaidindia.org/wp-content/uploads/2020/11/Workers-in-the-time-of-COVID-19-Round-II-of-the-National-Study-on-Informal-Workers.pdf; 2020.

[3] Agarwal S. Urban migration and social exclusion: study from indore slums and informal settlements. London. Available at: https://pubs.iied.org/10777IIED/; 2016.

[4] Agarwal S, Taneja S. All slums are not equal: child health conditions among the urban poor. Indian Pediatr. 2005;42(3):233–44.

[5] Armand A, Augsburg B, Banclari A. Coping with COVID-19 in slums- evidence from India, COVID-19-20077-IND-1. Available at https://www.theigc.org/wp-content/uploads/2021/01/Armand-et-al-2020-Final-report.pdf; 2020.

[6] Auerbach AM, Thachil T. How does Covid-19 affect urban slums? Evidence from settlement leaders in India. World Dev. 2021;140:105304. https://doi.org/10.1016/j.worlddev.2020.105304.

[7] Ayeb-Karlsson S. 'When we were children we had dreams, then we came to Dhaka to survive': urban stories connecting loss of wellbeing, displacement and (im)mobility. Clim Dev. 2020. https://doi.org/10.1080/17565529.2020.1777078.

[8] Ayeb-Karlsson S, et al. A people-centred perspective on climate change, environmental stress, and livelihood resilience in Bangladesh. Sustain Sci. 2016;11(4):679–94. https://doi.org/10.1007/s11625-016-0379-z Springer Japan.

[9] Ayeb-Karlsson S, Kniveton D, Cannon T. Trapped in the prison of the mind: notions of climate-induced (im)mobility decision-making and wellbeing from an urban informal settlement in Bangladesh. Palgrave Commun. 2020;6(62):1–15. https://doi.org/10.1057/s41599-020-0443-2.

[10] Bai X, et al. Cities: build networks and share plans to emerge stronger from COVID-19. Nature. 2020;584(7822):517–20. https://doi.org/10.1038/d41586-020-02459-2.

[11] Barnett-Howell Z, Mobarak AM. The Benefits and Costs of Social Distancing in Rich and Poor Countries. Available at: https://arxiv.org/abs/2004.04867; 2020.

[12] BBC. Coronavirus : Anger as migrants sprayed with disinfectant in India. *BBC*. Available at: https://www.bbc.com/news/world-asia-india-52093220; 2020. (Accessed: 3 April 2020).

[13] Bhagat RB, et al. The COVID-19, migration and livelihood in India. Mumbai: IIPS; 2020 Available at: https://iipsindia.ac.in/sites/default/files/iips_covid19_mlli.pdf.

[14] Bhanot D, Singh T, Verma SK, Sharad S. Stigma and discrimination during COVID-19 pandemic. Front Public Health. 2021;8:577018. https://doi.org/10.3389/fpubh.2020.577018.

[15] Bijl M. The Covid-19 crisis is exacerbating gender inequalities—but who cares? – Marja Bijl, Social Europe. Available at: https://www.socialeurope.eu/the-covid-19-crisis-is-exacerbating-gender-inequalities-but-who-cares; 2020. (Accessed: 3 June 2020).

[16] BMJ. Rapid Response: Success story of Dharavi against COVID-19 [Rapid Response to 'Delhi prepares to hit 500 000 covid-19 cases' by A. Kumar et. al. 2020] 370; 2020. https://doi.org/10.1136/bmj.m2817.

[17] Bosher L, Penning-rowsell E, Tapsell S. Resource accessibility and vulnerability in Andhra Pradesh: caste and non-caste influences. Dev Chang. 2007;38(4):615–40. https://doi.org/10.1111/j.1467-7660.2007.00426.x.

[18] Chandran R. Health workers, slum dwellers face housing bias as lockdowns lift. Available at: https://news.trust.org/item/20200603080350-sfybd/; 2020.

[19] Chatterjee P. Is India missing COVID-19 deaths? Lancet. 2020;396(10252):657. https://doi.org/10.1016/S0140-6736(20)31857-2.

[20] Chen J, et al. Effect of modelling slum populations on influenza spread in Delhi. BMJ Open. 2016;6(9):e011699. https://doi.org/10.1136/bmjopen-2016-011699.

[21] Choitani C. What happens to the wives of male migrant workers, who run entire households in villages ? The Wire. 2020(April) Available at: https://thewire.in/women/lockdown-migrant-workers-wives. (Accessed: 3 April 2020).

[22] Courtemanche C, et al. Strong social distancing measures in the United States reduced the COVID-19 growth rate. Health Aff. 2020;39(7). https://doi.org/10.1377/hlthaff.2020.00608.

[23] CSE. 'Slumming it Out', *Down to Earth*. Available at: https://www.downtoearth.org.in/dte-infographics/slums/index.html?fbclid=IwAR3PiNWh7-84chvlLvUArSevfBPB2k_d-VN5WIUUj_-ILhyRZkg8fY2mDaE; 2020. (Accessed 24 June 2020).

[24] Daud N. COVID-19: Malaysia's illegal migrants urged to come forward for health Screening. Malaysia World News. 2020https://www.malaysiaworldnews.com/2020/03/22/covid-19-malaysias-illegal-migrants-urged-to-come-forward-for-health-sceening/. (Accessed: 24 June 2020).

[25] Dixit M, Dilip C. Women locked and down: gendering the Covid-19 pandemic. Econ Polit Wkly. 2020;55(17)https://www.epw.in/journal/2020/17/commentary/gendering-covid-19-pandemic.html.

[26] Du BJ, King R, Chanchani R. Tackling inequality in cities is essential for fighting. TheCityFix; 2020 Available at: https://thecityfix.com/blog/2020-04-coronavirus-inequality-cities-jillian-du-robin-king-radha-chanchani/. (Accessed: 18 April 2020).

[27] Dutta A, Fischer HW. The local governance of COVID-19: disease prevention and social security in rural India. World Dev. 2021;138:105234. https://doi.org/10.1016/j.worlddev.2020.105234.

[28] Dutta A, Raju E. The Covid-19 pandemic is a Battle for Science. CHakra, Nordic J South Asian Stud. 2020;1:107–12 Available at: https://www.sasnet.lu.se/sites/sasnet.lu.se/files/2021-01/web_version_chakra_2020_no_1_ny-3.pdf.

[29] Ezeh A, et al. The history, geography, and sociology of slums and the health problems of people who live in slums. Lancet. 2017;389(10068):547–58. https://doi.org/10.1016/S0140-6736(16)31650-6 Elsevier Ltd.

[30] George CE, et al. High seroprevalence of COVID-19 infection in a large slum in South India; what does it tell us about managing a pandemic and beyond? Epidemiol Infect. 2021:1–19.

[31] Gupta I, Guin P. Health status and access to health services in Indian slums. Health. 2015;07:245–55. https://doi.org/10.4236/health.2015.72029.

[32] ILO. India wage report. India: ILO; 2018 Available at: https://www.ilo.org/wcmsp5/groups/public/—asia/—ro-bangkok/—sro-new_delhi/documents/publication/wcms_638305.pdf.

[33] ILO. Women and men in the informal economy: a statistical picture. Geneva: ILO; 2018 Available at: https://www.ilo.org/wcmsp5/groups/public/—dgreports/—dcomm/documents/publication/wcms_626831.pdf.

[34] ILO. ILO monitor 2nd edition : COVID-19 and the world of work updated estimates and analysis. Geneva. Available at: https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms_740877.pdf; 2020.

[35] Jayaram N, Varma D. Examining the 'labour' in labour migration: migrant workers' informal work arrangements and access to labour rights in urban sectors. Indian J Labour Econ. 2020;63:999–1019 (2020) https://doi.org/10.1007/s41027-020-00288-5.

[36] Jha MK. Liquid disaster and frigid response: disaster and social exclusion. Int Soc Work. 2015;58(5):704–16. https://doi.org/10.1177/0020872815589388.

[37] Koh D. Migrant workers and COVID-19. Occup Environ Med. 2020;77(9):634–6. https://doi.org/10.1136/oemed-2020-106626.

[38] Koschorke M, et al. Experiences of stigma and discrimination of people with schizophrenia in India. Soc Sci Med. 2014;123:149–59. https://doi.org/10.1016/j.socscimed.2014.10.035 Elsevier Ltd.

[39] Lipton E, et al. He could have seen what was coming : behind Trump's failure on the virus. New York Times. 2020(14 April) Available at: https://www.nytimes.com/2020/04/11/us/politics/coronavirus-trump-response.html.

[40] Malani A, et al. Seroprevalence of SARS-CoV-2 in slums versus non-slums in Mumbai, India. Lancet Glob Health. 2021;9(2):e110–1.

[41] Mendenhall E, et al. Non-communicable disease syndemics: poverty, depression, and diabetes among low-income populations. Lancet. 2017;389(10072):951–63. https://doi.org/10.1016/S0140-6736(17)30402-6 Elsevier.

[42] Mishra SV, et al. COVID-19 and urban vulnerability in India. Habitat Int. 2020;103 (102230). https://doi.org/10.1016/j.habitatint.2020.102230.

[43] Moore A, Kortsaris P. Adaptable asylum systems in Portugal in the context of COVID-19. Forc Migrat Rev. 2020;65.

[45] News18. *Pregnant Migrant Worker Walking Back Home Delivers Baby by Roadside in Telangana's Medak*, *News18*. Available at: https://www.news18.com/news/india/pregnant-migrant-worker-walking-back-home-delivers-baby-by-roadside-in-telanganas-medak-2607249.html; 2020.

[46] Nigam S. COVID-19: India's Response to Domestic Violence Needs Rethinking (May 12, 2020). Nigam Shalu (2020) COVID-19: India's Response to Domestic Violence Needs Rethinking', *South Asia J*. Available at SSRN. https://ssrn.com/abstract=3598999.

[47] Nolan LB, Bloom DE, Subbaraman R. Legal status and deprivation in India's urban slums: an analysis of two decades of national sample survey data, PGDA Working Paper No. 135 Harvard University Program on the Global Demography of Aging Working Paper Series. 2017. Available at: https://cdn1.sph.harvard.edu/wp-content/uploads/sites/1288/2012/11/Legal-Status-andDeprivation-in-Indias-Urban-Slums.pdf; 2017.

[48] Osrin D, et al. A rapid assessment scorecard to identify informal settlements at higher maternal and child health risk in Mumbai. J Urban Health. 2011;88(5):919–32. https://doi.org/10.1007/s11524-011-9556-7.

[49] Pande R, et al. Reaching India's poorest women with COVID-19 relief, *Yale Economic Growth Centre Brief*. Available at: https://egc.yale.edu/reaching-indias-poorest-women-covid-19-relief; 2020.

[50] Parpiani M. Fighting fires: migrant workers in Mumbai. Econ Polit Wkly. 2020;55(14) Available at: https://www.epw.in/journal/2020/14/commentary/fighting-fires-migrant-workers-mumbai.html?fbclid=IwAR2aVsmaXHyyGc2UKU6wkTgDbLn8ryqDI4SNiuqf9nbXCnPumcoBRm9tT-Y.

[51] Patel A, Shah Phoram. Rethinking slums, cities, and urban planning: lessons from the COVID-19 pandemic. Cities & Health. 2020. https://doi.org/10.1080/23748834.2020.1790252.

[52] Phillips T. Jair Bolsonaro claims Brazilians' never catch anything as Covid 19 cases rise. The Guardian. 2020(27 March) Available at: https://www.theguardian.com/global-development/2020/mar/27/jair-bolsonaro-claims-brazilians-never-catch-anything-as-covid-19-cases-rise. (Accessed: 3 April 2020).

[53] Praharaj and Vaidya. The Urban Dimension of Covid-19′, Avaialable at. https://smartnet.niua.org/sites/default/files/resources/the_urban_dimension_of_covid-19-3.pdf; 2020.

[54] PTI. *March–May period likely to be warmer than normal, says IMD*, *LiveMint*. Available at: https://www.livemint.com/news/india/march-may-period-likely-to-be-warmer-than-normal-says-imd-11582902883626.html; 2020.

[55] Raju E. Gender as fundamental to climate change adaptation and disaster risk reduction: experiences from South Asia. In: Kinvall C, Rydstrom H, editors. Climate Hazards, Disasters, and Gender Ramifications1st ed.; 2019. p. 122–37 London.

[56] Raju E. Five years post-Sendai: where is the Sendai framework for disaster risk reduction in the COVID-19 response? Disaster Prev Manag. 2020;29(4):421–3. https://doi.org/10.1108/DPM-08-2020-400.

[57] Raju E, Ayeb-Karlsson S. COVID-19: how do you self-isolate in a refugee camp? Int J Public Health. 2020. https://doi.org/10.1007/s00038-020-01381-8.
[58] Raju E, van Niekerk D. Why do the impacts of COVID-19 and the response surprise the world? Jàmbá: J Disast Risk Stud. 2020;12(1):3. https://doi.org/10.4102/jamba.v12i1.1028.
[59] Reuters. Portugal to treat migrants as residents during coronavirus crisis. Reuters. 2020 Available at: https://www.reuters.com/article/us-health-coronavirus-portugal/portugal-to-treat-migrants-as-residents-during-coronavirus-crisis-idUSKBN21F0N7. (Accessed: 17 June 2020).
[60] Rice X. 'Kenya' s slums attract poverty tourism. The Guardian. 2009 Available at: https://www.theguardian.com/world/2009/sep/25/slum-tourism-kenya-kibera-poverty. (Accessed 3 April 2020).
[61] Rolsted M, Raju E. Addressing capacities of local communities in a changing context in Nepal. Disaster Prev Manag. 2020;29(4):485–95. https://doi.org/10.1108/DPM-05-2020-0137.
[62] Roy BYD, Boss R, Pradhan M. How India' s food-based safety net is responding to the COVID-19 lockdown. IFPRI Blog; 2020 Available at: https://www.ifpri.org/blog/how-indias-food-based-safety-net-responding-covid-19-lockdown (Accessed: 16 April 2020).
[63] Santha SD, et al. Climate variability, livelihoods and social inequities: the vulnerability of migrant workers in Indian cities. Int Area Stud Rev. 2016;19(1):76–89. https://doi.org/10.1177/2233865915626832.
[64] Satterthwaite D, et al. Responding to climate change in cities and in their informal settlements and economies, IPaper prepared for the IPCC for the International Scientific Conference on Cities and Climate Change in Edmonton; 2018. https://doi.org/10.1016/j.ijdrr.2017.09.050.
[65] Sclar ED, Garau P, Carolini G. The 21st century health challenge of slums and cities. Lancet. 2005;365(9462):901–3. https://doi.org/10.1016/S0140-6736(05)71049-7 Elsevier.
[66] Srivastava R. Coronavirus compensation promised to poor workers in India. Thomson Reuters News Foundation; 2020 Available at: https://news.trust.org/item/20200318171315-hrvio/ (accessed: 31 March 2020).
[67] Subbaraman R, et al. Off the map: the health and social implications of being a non-notified slum in India. Environ Urban. 2012;24(2):643–63. https://doi.org/10.1177/0956247812456356.
[68] The Lancet. COVID-19 in Brazil:"So what?". Lancet (London, England). 2020;*395*(10235):1461. https://doi.org/10.1016/S0140-6736(20)31095-3.
[69] The Print. Hundreds of migrants gather at Bandra railway station, demand transportation to go home. The Print. 2020(April) Available at: https://theprint.in/india/hundreds-of-migrants-gather-at-bandra-railway-station-demand-transportation-to-go-home/401758/. (Accessed: 18 June 2020).
[70] UN Habitat. Covid 19 response plan. Avaialble at https://unhabitat.org/sites/default/files/2020/04/final_un-habitat_covid-19_response_plan.pdf; 2020.
[71] Unger A, Riley LW. Slum health: from understanding to action. PLoS Med. 2007;4(10):1561–6. https://doi.org/10.1371/journal.pmed.0040295.
[72] UNHABITAT. Youth in Nairobi slum use murals to educate the community about COVID-19'. Available at. https://unhabitat.org/youth-in-nairobi-slum-use-murals-to-educate-the-community-about-covid-19; 2020.
[73] Vaz de Macedo A. Brazil and COVID-19—a fleeting glimpse of what is to come. JAMA Health Forum. 2020;Vol. 1(9) e201061-e201061. American Medical Association.
[74] Weill JA, et al. Social distancing responses to COVID-19 emergency declarations strongly differentiated by income. Proc Natl Acad Sci. 2020;117(33):19658–60. https://doi.org/10.1073/pnas.2009412117.
[75] Wilkinson A, et al. Local response in health emergencies: key considerations for addressing the COVID-19 pandemic in informal urban settlements. Environ Urban. 2020:1–20. https://doi.org/10.1177/0956247820922843.
[76] Ghosh P, Ghosh R, Chakraborty B. COVID-19 in India: Statewise analysis and prediction. JMIR public health and surveillance. 2020;6(3):e20341.
[77] Corburn J, Vlahov D, Mberu B, Riley L, Caiaffa WT, Rashid SF, ... Ayad H. Slum health: arresting COVID-19 and improving well-being in urban informal settlements. Journal of urban health. 2020;97(3):348–57.
[78] George CE, Inbaraj LR, Chandrasingh S, de Witte LP. High seroprevalence of COVID-19 infection in a large slum in South India; what does it tell us about managing a pandemic and beyond? Epidemiology & Infection. 2021;149.
[79] Mehrotra R. Negotiating the static and kinetic cities: the emergent urbanism of Mumbai. In Other Cities, Other Worlds. Duke University Press; 2008; 205–18.
[80] Rao, V., & Diwadkar, V. From Informality to Parametricism and Back Again. Informal Market Worlds Reader, nai010 publishers, Rotterdam, 2015. 161-184.
[81] Scott AJ, Storper M. The nature of cities: The scope and limits of urban theory. International journal of urban and regional research. 2015;39(1):1–15.
[82] Satterthwaite D, Dodman D. Towards resilience and transformation for cities within a finite planet.Env. Urb. 2013;25(2):291–8.
[84] Korra V. Dynamics of distress seasonal migration: a study of a drought-prone Mahabubnagar district in Telangana. In: Irudaya Rajan S, Bhagat RB, editors. Climate change vulnerability and migration. India: Routledge; 2018. p. 212–36.
[85] Dixit M, Chavan D. Gendering the COVID-19 pandemic women locked and down. Economic and Political Weekly. 2020;17:13–6.
[86] Babu BV, Kusuma YS, Sivakami M, Lal DK, Marimuthu P, Geddam JB, ... Akoijam BS. Living conditions of internal labour migrants: a nationwide study in 13 Indian cities. International Journal of Migration and Border Studies. 2017;3(4):328–51.
[87] Guru G. COVID-19 and the Question of Taming Social Anxiety. Econ Polit Wkly, 55, 14 (4). https://www.epw.in/journal/2020/14/editors-desk/covid-19-and-question-taming-social-anxiety.html.
[88] Patel A, Shah P. Rethinking slums, cities, and urban planning: lessons from the Covid-19 pandemic. Cities & Health. 2020:1–3.
[89] OHCHR & WHO (2008). The Right to Health, Fact Sheet no. 31. OHCHR & WHO, Geneva. Avaliable online: https://www.ohchr.org/Documents/Publications/Factsheet31.pdf.
[90] UN Intergovernmental Conference on the Global Compact for Migration (n.d.) FAQs on the global compact for safe, orderly and regular migration (GCM). Retrieved from https://www.un.org/en/conf/migration/faqs.shtml. 26 March 2021.