Chapter 8

Reimagining Climate Justice as Caste Justice

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The contribution of colonialism and imperial expropriation to the unfolding climate crisis has been well documented on a global scale. This chapter seeks to interrogate the role of caste as a structural element in shaping environmental inequities within India and beyond. Scientists across disciplines agree that the current system of production is unsustainable at the planetary level, even if a consensus on how to address this issue remains elusive. I argue that in the case of India, accounting for historical and contemporary caste-based extraction is crucial for any meaningful realization of climate justice.

Globally, academic scholarship and policy have come to acknowledge the uneven and unjust ways in which the burden and responsibility for the current crisis are distributed across nations, ethnicities, races, and genders. There is an emerging consensus that the historical pathways of colonialism and capitalist development are directly responsible for this uneven distribution. This pattern is seen across the histories of energy production, plantation economies, and commercial agriculture, as demonstrated in the detailed work of political ecologists (for example, Li 2017). Consequently, the idea that mitigation, adaptation, and resilience-building strategies must account for this historical unevenness is no longer controversial.

We see this acknowledgement in the principle of 'common but differentiated responsibility' formally adopted by the United Nations in 1992. Under this principle, world governments recognize the lesser contribution of formerly colonized countries such as India towards planetary environmental degradation. This can be read as an acknowledgement of the unequal distribution of political power and economic prosperity across world nations because of colonialism. Acknowledging this historicity of the climate crisis is important, but our understanding of it would

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remain incomplete without a serious stock-taking of those dimensions of inequality and unevenness that significantly pre-date the rise of colonial capitalism and are yet implicated in its development trajectory. These dimensions of inequality often operate at the national or sub-national levels and therefore escape scrutiny on the global stage. In the case of India, one such important and all-pervasive dimension of inequality is caste.

For decades, anthropological and historical scholarship on caste focused only on ritual, scriptural, and mythical dimensions, thus constructing the issue as a matter of religion alone. Anti-caste scholars and activists such as Ambedkar, Phule, and Periyar have resisted such 'orientalist' representations of caste. One main aim of anti-caste scholarship has been to expose how caste operates as a spatially organized institution that is directly connected to economic and other material resources (Thorat and Newman 2010). Despite this long tradition of anti-caste scholarship, research on the material and structural dimensions of caste has remained limited. While it is empirically well documented that access to land, labour conditions, inheritance of wealth, and opportunities for social mobility are all deeply differentiated along caste lines, these arguments are yet to be incorporated into scholarship on environmental and climate justice (for example, Vijayabaskar and Wyatt 2013).

In this chapter, I demonstrate how in the case of India, pre-existing social relations determined by caste have shaped capitalist development in the region, which in turn has influenced the trajectory of the climate crisis. Thus, one's contribution to the climate crisis and exposure to its effects are related closely to one's caste location in Indian society. This is why I argue that the question of climate justice in India is inseparable from the question of caste justice. In other words, climate justice *is* caste justice.

To elucidate this argument, I draw from historical and contemporary empirical evidence. I present the argument in four sections. The first section outlines how caste and capital co-evolved in the context of colonialism. The discussion on colonial property regimes shows how caste ideology reinforced capitalist frameworks to produce displacement, dispossession, and extraction. The next section demonstrates how historical caste-based displacement continues to shape land relations, labour relations, and resource use in urban India. I use examples from urban housing to establish the continuities between colonial policies and neoliberal reforms. The third section discusses current policy dispositions towards tackling urban sanitation issues and how they reproduce unequal caste relations and further entrench caste power through the deployment of digital governance. The final section highlights the chasm between anti-caste politics and urban environmentalist agendas. Throughout these four sections, I foreground the need to recognize the social reality of caste to address its distributional and procedural outcomes. Based on these arguments, the

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conclusion will set an agenda for anti-caste climate activism and scholarship going forward. As in the rest of this volume, this chapter, too, will use the vocabulary of 'upper' and 'lower' castes as shorthand to refer to the relative position of groups in the social hierarchy and power structure of caste. The quotation marks here indicate my personal disavowal of this system of caste hierarchy. The usage here is purely descriptive and not normative.

Caste, capitalist development, and colonial property regimes

Several studies have documented the role of caste in perpetuating inequality in India (Thorat and Newman 2010). Traditionally, the caste structure was maintained through hereditary occupations and by enforcing strict rules of endogamy. Caste elites traditionally enforce these rules through social sanction and ostracization. The abolition of egregious caste practices such as untouchability (as mandated by the Indian Constitution), and the opening up of higher education and employment opportunities to all caste groups, were welcome steps but they did not adequately address centuries of deprivation. For instance, the 70th round of the National Sample Survey in India found that more than 70 per cent of all farmers from the lowest caste group (Scheduled Castes) worked as agricultural labourers dependent on daily or seasonal wages from upper caste landlords. The survey further found that close to 60 per cent of all rural Scheduled Caste households were landless and entirely dependent on casual wage work (*Hindustan Times* 2018).

A study of the occupational profiles of caste groups showed that traditionally oppressed groups such as Dalits and Adivasis are overwhelmingly over-represented in the informal sector where wages are lower, work conditions more precarious, and social security non-existent (Singh and Thorat 2014). While the study found that, by and large, occupational mobility has indeed improved for elite and mid-ranking caste groups in the postcolonial period, for the lowest-ranked groups, that is, the 'ex-untouchables', it has remained nearly impossible. The starkest instance of this can be seen in the case of 'manual scavenging' – the manual, unmechanized, and unprotected cleaning of dry latrines, sewers, drains, septic tanks, and railway tracks. Even though the practice was declared illegal in 1950, workers are hired for manual scavenging by public and private actors alike. According to estimates by Safai Karmachari Andolan, an activist movement aimed at eliminating manual scavenging, approximately 98 per cent of all workers employed in this kind of work are Dalits and predominantly women (Safari Karmachari Andolan n.d.).

How is it that manual scavenging not only continues even after seven decades of independence and affirmative action but is still performed only by a specific caste

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group? Part of the answer is in how public institutions tap into the caste order and its hereditarily assigned occupational roles. Ambedkar described it in *Annihilation of Caste* (2004 [1944], 4.1) as 'not merely a division of labour ... [but] ... also a division of labourers'. He critiqued this division of labourers for its rigid hierarchy, denial of agency to those it stratifies, and obstruction of opportunities for genuine solidarity and nation-building. He defines caste society as a 'society in which some men are forced to accept from others the purposes which control their conduct' (Ambedkar 2004 [1944], 14.4). This fundamental undermining of agency and dignity by caste has been obfuscated in the way the institution has come to be codified under colonial rule.

The administrative categories through which caste is made formally legible and measurable in society today – that is, Scheduled Caste, Scheduled Tribe, and Other Backward Classes – are an inheritance from colonial rule. Each of these categories stands in for serious deprivations and historical injustices; however, in policy discourse, they are presented, especially to the global community, using the vocabulary of socioeconomic and educational metrics. These administrative categories obscure more than they reveal. For one, each of them encompasses hundreds, if not thousands, of sub-categories of *jati*s or *janjati*s, each of which is a community with its own unique lived experience of caste. More importantly, the categories privilege the so-called higher castes by defining them as the 'general' category while othering the so-called middle and lower castes via various labels that carry negative societal connotations. By doing so, they obscure the true nature of caste – a system of oppression that devalues and demeans the very existence of those it marginalizes. These categories do not expose and make visible the operation of caste power and those who have benefitted from it. What is lost in this partial and aggregated reading of caste is the long and complex history of how caste and colonialism co-produced capitalist development, whose effects have since compounded into the current climate crisis that presents inordinate threats for the oppressed. To understand the relationship between climate justice and caste justice, we must recognize and reconstruct this history of collusion.

One protagonist in this story of capitalist development is the idea of property. Postcolonial historians have illustrated how colonial powers turned occupied land into 'property' (Bhandar 2019). By doing so, the colonial state succeeded in generating value for itself through rent, taxation, and claims to the produce of the land. In British India, the colonial government established standardized property regimes to exploit the environment and local population to extract the maximum possible value. This was accomplished by solidifying existing caste relations by embroiling them in these property regimes. Bhambra has argued that colonialism provided the

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foundational structure for the development of global capitalism (Bhambra 2020). The value extracted in the form of revenue from colonies was poured into creating and sustaining the core infrastructure of the capitalist economy. This was also seen in the Americas, where the commodification of enslaved labour and resultant conversion of people into property provided the foundation for the emergent capitalist system (Robinson and Quan, 2019). However, a similar reckoning of how property contributed to global capitalism in colonial South Asia is lacking. Any such reckoning must include caste as a central analytical category. To understand this process, we now turn to two historical examples from the strategic and high-value agricultural provinces of Bengal and Punjab.

In Bengal, one of the most far-reaching colonial interventions was the Permanent Settlement of 1793 (Guha 1982). This act created an institutionalized property regime whereby the colonial state assumed the role of a landlord. The exact contours of the social change brought about by the Permanent Settlement are still being debated by historians, but two things remain undisputed. First, the creation of legal land titles established a land market that benefitted upper caste groups, both as sellers in rural areas and buyers in urban areas. Second, the formalization of land titles and revenue extraction processes led to increased coercion and exploitation of landless lower caste groups. In this colonial property regime, those with property rights could easily pay for their dues to the colonial state by either using extractive force or by selling off their land titles and revenue rights to the highest bidder. However, the actual tillers remained tied to their inherited status with no formal rights, while bearing the onus of having to produce more and more as the demand for revenue increased (Ray 1974).

A similar process unfolded in the province of Punjab. Drawing on the lessons learned from their experience in Bengal, colonial administrators sought to make the rural context legible to the state through a homogenous system of classification. This paved the way for 'improvement' planning. The colonial state undertook the humongous administrative task of mapping and designating all the available land within the province into categories that were legible to it. Until the 1870s, only about 40 per cent of the surveyed area in Punjab was under settled cultivation; under the colonial administration, the share of this category increased significantly. To do this, the colonial state made all peasants knowable and countable and turned all available land into productive assets, that is, property. Bhattacharya refers to this as the 'great agrarian conquest', which led to the slow but significant erasure of nomadic and pastoralist ways of life, a wide gamut of common property rights, and seasonal rights to resources such as wells and forests (Bhattacharya 2019). In the words of a colonial chief commissioner of Punjab, the administrators conducting the mapping

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and settlement 'disposed of at least 80,000 petty rent-free tenures' and 'decided some 6000 suits to landed property or ancestral rights' (Bhattacharya 2019, 76). In making these decisions, the colonial administrators identified the dominant caste in each part of the province and formalized their customary practices through the use of *bhaichara* tenures or rights of ownership based on fraternity.

As in the case of Bengal, the colonial settlement institutionalized only two kinds of land relations – ownership and tenancy. Through the use of *bhaichara* tenures, the land rights of upper castes were legally secured as ownership and those who were not considered to be part of the *bhaichara* fraternal community were automatically accorded tenant status irrespective of their actual use of and relationship to the land (Bhattacharya 2019). Lower castes, non-agricultural castes, and women were bereft of land rights. In cases involving especially complex customary land rights, ownership and tenancy were sub-categorized into superior and inferior, with each accorded varying degrees of rights and protection. But on the whole, land rights, including the customary claims of the lower castes and Adivasis, went entirely unheeded. Similar settlement interventions were conducted across the whole of British India. This history of dispossession and revenue extraction directly connects caste relations in the subcontinent to capitalist development, the ongoing climate crisis, and the question of climate injustice.

The decades following the settlement of the Bengal province saw a massive rise in revenue collections – within the first three decades, there was an increase (Roy 2013). This revenue was channelled into private profits and British public sector works, including the construction of infrastructure in other colonies such as roads, railways, and factories in the Americas (Patnaik 2017). As argued by Bhambra, these investments formed the bedrock of the core infrastructure of the colonial economy and therefore global capitalism (Bhambra 2020). Thus, the history of caste injustices is intricately connected to climate injustices, not only within India and South Asia but also in global dialogue on tackling the climate crisis. The principle of common but differentiated responsibility must therefore be extended to account for caste-based domestic inequalities and be concretely reflected in climate policy at both the international and national levels. In the next section, we look at how this caste-based regime of property, which was reinforced under colonial rule, continues to shape everyday life in postcolonial India.

The everyday contours of caste in contemporary India

The institutionalization of property and reinforcement of the material basis of caste have rendered social groups designated as lower castes disposable and have

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normalized their displacement. This continues to be the norm across different geographies even in contemporary times. In this section, we consider how this plays out in urban contexts and especially in everyday land and labour relations. This section demonstrates how this structural disposability of the so-called lower castes relates to the distributional, procedural, and recognitional aspects of climate justice in the Indian context.

In the light of worsening climate risks, migration is often cited as a valid and appropriate adaptation strategy to cope with environmental, socioeconomic, and political stress (Adger and Adams 2013). India's seasonal and circular labour migrants have used this strategy for decades. However, they continue to face exclusion and displacement within their host cities, which further heightens their vulnerability to extreme weather events. Both ethnographic and statistical studies show that the deprived caste groups – Scheduled Castes, Scheduled Tribes, and Other Backward Classes – make up the majority of the circular migrant population (Deshingkar and Akter 2009). Though there is no disaggregated data on the migration practices of specific caste groups, ethnographic evidence has shown how the absence of land rights, lack of security of tenure, and stagnant agricultural wages have pushed subaltern caste groups made up of small cultivators and landless wage workers to migrate to urban areas in search of informal employment (Breman 1996; Harriss-White 2003; Sircar 2018).

The mobile informal workforce that urban India is dependent on consists of the very same dispossessed and displaced caste groups. The landlessness and precarity of tenure institutionalized under the colonial regime were further entrenched by the failure of redistributive land reforms in postcolonial India (Kashwan 2017). The introduction of neoliberal reforms in the 1990s firmly established metropolitan urban centres as the drivers of growth – these cities in turn became dependent on this massive itinerant workforce.

There are an estimated 100 million seasonal and circular migrants working in India's informal economy. The informal sector accounts for more than 95 per cent of all employment in the country and relies heavily on migrant workers (Deshingkar and Akter 2009). Of these, about 15 million are estimated to be child migrants. Labour migration has been a key structural element of the Indian economy for several decades, but it is yet to be given due attention in policy. This was made most starkly visible during the COVID-19 lockdown of 2020 when millions of migrant workers journeyed home to their villages by foot, bicycle, and other ad-hoc modes of transport. Considered the largest exodus since the Partition in 1947, images of millions of people walking down empty highways occupied headlines for weeks. While the pandemic and ensuing lockdown have no doubt worsened the already precarious situation of these migrant workers, this presents an opportunity to

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investigate their marginalization even during relatively prosperous times. It is also important to examine how historic caste-based deprivations feed into and reinforce this marginalization. Throughout the postcolonial period, and especially since the economic liberalization of the 1990s, cities across India have adopted policies that push migrant workers to live in under-served urban settlements or 'slums' that are exposed to greater climate risk. One of the common mechanisms through which this takes place is the removal of informal settlements from urban land that is considered to be high value (and therefore up for 'improvement') by blaming them for environmental degradation (Baviskar 2020). The discourse that planners, municipal authorities, caste elites, and judicial institutions mobilize to justify these displacements is reinforced by both overt and covert caste prejudices. Thus, caste operates as a key organizing factor in the distributional and procedural aspects of urban climate governance.

In Delhi, the post-liberalization period saw the emergence of 'green speak' in urban planning, which envisioned the environment as an aesthetic category within a 'slum-free' and 'world class' city (Ghertner 2011). In this vision, the informal settlements of migrant workers were seen as inherently polluting because of their aesthetic departure from the desired urban vista. Although caste is seldom named or directly evoked in this discursive violence, its reliance on caste ideology is all too evident.

A case in point is the Pushta *basti* settlement on the bank of the Yamuna in Delhi, where most residents are from the so-called lower caste communities. The settlement first emerged in the 1970s and grew exponentially in the run-up to the 1982 Asian Games when construction workers were brought in to build the infrastructure for this high-profile event (Bhan 2017). Since the 1990s, a series of public interest litigations (PILs) have been filed by private actors seeking to remove Pushta *basti* and displace its residents. These include owners of industrial units and resident welfare associations of upscale neighbourhoods that release their unprocessed effluents and sewage into the river, respectively. By the Delhi Water Board's own admission, a majority of the river's pollution can be traced to these elite residential and industrial units rather than to the *basti* (Ghertner 2011). In a 1994 petition to the Delhi High Court, a group of factory owners demanded that the municipal authorities 'destroy infectious huts and shed[s] in order to prevent the spread of any dangerous diseases' (Ghertner 2011, 145). The court upheld this claim and ordered the removal of the settlement. This labelling of lower caste settlements as inherently infectious is steeped in the caste ideology of purity and pollution.

In the aftermath of the Bangalore plague of 1898, the colonial administration represented the epidemic as 'a disease of locality' with origins in the 'cultural pollution' of those deemed unsanitary (Ranganathan 2018, 1391). Even after it was

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proven that the plague was transmitted by rat fleas and not cultural practices, the municipality continued to focus on aesthetic interventions in the White and elite native parts of the city instead of rebuilding the crumbling sanitation infrastructure in the so-called infectious localities. This pattern has continued into contemporary times. Björkman's (2015) study of piped water provisioning in Mumbai shows that elite residential complexes, even when constructed using dubious means and with alterations outside the master plan, receive water connections and regular supply. In stark contrast, settlements designated as 'slums' due to their working-class/caste character, even when constructed within the framework of planned development, are displaced to marshlands in the city's fringes and deprived of basic amenities. In these measures undertaken by urban planning agencies, it is easy to see how the distribution of blame, responsibility, and risk is unfairly skewed against the caste subaltern.

Resettlement procedures are similarly influenced by caste ideology. In 2002, Ambedkar Slum Utthan Sangathan (ASUS) – a coalition of displaced households seeking fair resettlement in Delhi – moved the Delhi High Court against the municipality for assigning them resettlement flats of 24 square meters as opposed to the 60 square meters that they had been originally promised 30 years prior. The court declined to stop their forced resettlement after a court-appointed commissioner found the flats to be 'commensurate with the status of the persons sought to be shifted' (Bhan 2017, 465). This issue of 'status' is, of course, laden with caste prejudice. The same 24 square meters would be deemed inadequate for an elite caste/class family but was deemed suitable for displaced migrant workers from marginalized castes. Thus, the caste identity of migrant workers is invoked as a marker of 'status' to justify depriving them of their right to property and fair housing. Municipalities and urban development authorities routinely use the absence of land titles and formal ownership rights to justify dispossessing de facto users of urban land, even if many of these groups had previously negotiated with the bureaucracy to secure basic services in the form of water and electricity meters.

Somewhat ironically, PILs have emerged as a tool for elite urban residents to displace subalterns from both urban spaces and the imagination of urban citizenship. In this process, the idea of property features as a key determinant of social and legal status. In an earlier 2002 judgment, the Delhi High Court had considered the welfare of property-owning elites as 'public interest' while failing to similarly uphold the rights of property-less members of the 'public' (Bhan 2016). This logic is replicated across all urban development interventions in the age of neoliberal reforms. For instance, under the 100 Smart Cities Mission, municipalities and smart city authorities across India are required to facilitate land acquisition for

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city extension and the building of 'satellite towns' beyond municipal boundaries. In Nashik, Maharashtra, more than 700 acres of agricultural land is being acquired for 'greenfield development', requiring a consensus among more than 300 farmers (Pawar 2019). The land in concern is currently being used to cultivate grapes – a lucrative cash crop – and offers employment to landless wage workers from the Dalit and Adivasi communities. These workers are not recognized as stakeholders in the negotiations even though they will lose their livelihoods if the project moves forward (Smart Cities Council 2020a).

Similar examples abound across small and large urban centres. In the city of Shimla – a part of the Punjab province under colonial rule and the summer capital of British India – the main smart city intervention was the redevelopment of the main commercial zone, Lower Bazaar. The proposed smart city plan aims to promote adaptation and resilience building by improving sewage, drainage, and solid waste management infrastructure (Smart Cities Council 2020b). However, it fails to recognize the residents of Krishna Nagar – a settlement downhill from Lower Bazaar – as equal stakeholders in this redevelopment. The settlement in Krishna Nagar is located on top of soil deposited from mountain excavations to build the city centre in the colonial era. This makes the settlement structurally prone to landslides and flooding. While the first houses were constructed by migrant labourers from the surrounding plains, later residents were sanitation workers employed by the municipality. They were provided government staff quarters constructed by the municipality, but which are now referred to as a 'slum' due to lack of upkeep and recurrent damage from flooding (Datta 2019).

The tendency to disregard formality and legality and use the denomination 'slum' to refer to any settlement that is deemed displaceable because of its aesthetic and the social status of its residents is in fact officially validated. The 1971 Maharashtra Slum Areas (Improvement, Clearance and Redevelopment) Act allows any area to be designated as a 'slum' if it 'is or may be a source of danger to the health, safety or convenience of the public of that area or of its neighbourhood, by reason of the area having inadequate or no basic amenities' (Björkman 2015, 101). Thus, the municipality's failure to extend basic services is obscured by mobilizing the casteist discourse of hygiene and safety. Subaltern caste groups are hence marginalized within urban housing through the following interlinked mechanisms: (*a*) the erosion of customary rights through the discursive mobilization of casteist tropes, (*b*) systematic denial of formal property ownership, and (*c*) designation of property ownership as the sole means to securing participation in decision-making.

This is evident in Chu and Michael's research in the cities of Bengaluru and Surat. The authors argue that migrant workers in the informal sector 'embody intersecting

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forms of environmental marginality' that are based on existing structures of social power such as gender and caste (Chu and Michael 2019, 152). Recognizing this social reality and the deprivations that result from it is a necessary precursor to any meaningful climate justice intervention. I have extended this argument to demonstrate the logical continuity between colonial-era policies and contemporary neoliberal interventions. Both benefit from the existence of caste and reinforce caste ideology to further entrench material inequalities. In the following section, we will take a closer look at the urban sanitation sector, which exemplifies the intersection of caste-based extraction of labour and urban climate governance.

Caste, urban sanitation, and digital governance

In recent years, urban sanitation has emerged as a prominent sector for climate governance and sustainability interventions. Recurrent urban flooding in high-profile metropolitan centres such as Mumbai (2005), Chennai (2015), Kochi (2018), and Bangalore (2020) has attracted significant attention. Two highly publicized policy regimes have been the key drivers of interventions in urban sanitation work – the Swachh Bharat Mission and the 100 Smart Cities Mission. In this section, we look at some of the interventions undertaken as part of these missions and dissect them from the perspective of caste justice. The analysis shows that these policy approaches are missed opportunities to recognize caste injustice.

Both of these policy regimes place sustainability at the centre of their agendas. The Swachh Bharat Mission, while being predominantly focused on rural India, aspires to attaining 'open defecation free' (ODF) status and 'universal sanitation' through 'cost effective and appropriate technologies for ecologically safe and sustainable sanitation' (Swachh Bharat Mission – Grameen n.d.). On a similar note, the Smart Cities Mission seeks to create 'cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of "Smart" Solutions' (Ministry of Urban Development 2015, 5). The mission guidelines identify 'sanitation, including solid waste management' as a core infrastructure that all smart cities must address. While retrofitting and integrating digital technology into urban governance is a key element of the mission, a thematic mapping of the proposed smart city projects reveals that urban renewal, redevelopment projects, and physical infrastructure with the potential to generate high revenue constitute much of the 'smartness' (Taraporevala 2018). Here, we see a clear continuity with the urban development approach of earlier decades, which relies on the displacement and disposability of caste subalterns. As the following discussion shows, by applying the same exclusionary model of urban planning, the mission fails to address the issue of caste that underlies the sanitation crisis in urban India.

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Urban infrastructure, much like the rural property regime, has been foundational to the creation of the contemporary land and market regimes that fuel capitalism and, by extension, the climate crisis (Ramesh and Raveendranathan 2020). As far as sanitation goes, both urban and rural infrastructure are entirely reliant on deeply exploitative labour extraction of Dalit workers. The most grotesque form of this is the outlawed practice of 'manual scavenging'. In the Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act of 1993, manual scavenging is defined as the practice of manually handling human excreta for the purpose of cleaning a latrine, pit, or drain. However, Shankar and Swaroop (2021) argue that there are many other forms of sanitation work in which human beings – overwhelmingly Dalits – are forced to come into contact with human excreta. These include cleaning railway stations and tracks as trains in India discharge sewage material directly onto the tracks, cleaning storm drains carrying sewage instead of stormwater, and cleaning septic tanks in private and public buildings.[1]

According to the Ministry of Social Justice and Empowerment, there were 282 recorded deaths from manual scavenging between 2016 and 2019 (Desai 2020). Safai Karamchari Andolan estimates that there are 1.2 million people involved in manual scavenging (Safai Karmachari Andolan n.d.). Other studies have estimated that those involved in the manual cleaning of drains and septic tanks have a substantially lower life expectancy than average (Das 2018). Due to the paltry wages offered to manual scavengers, the absence of any protective gear or life insurance, the lack of agency in determining working conditions, and the enduring caste character of this exploitative system, Shankar and Swaroop (2021) argue that this practice constitutes slave labour and the ensuing violence against Dalits is of genocidal proportions.

Yet, the two dominant policy regimes, the Swachh Bharat Mission and Smart Cities Mission, make no mention of caste exploitation in sanitation work and articulate no vision for tackling this mammoth problem. In fact, the Swachh Bharat Mission actively builds on this horrific legacy. As part of this mission, more than 5.5 million new toilets have been constructed that are reliant on pits or septic tanks that are not necessarily linked to a drainage or solid waste management system network (Das 2018). While the mission celebrates the number of new toilets constructed, it does not lay out any concrete plans for expanding faecal sludge management infrastructure to cope with this massive volume of sewage. The responsibility for this is passed on to village- and city-level authorities without any system established for monitoring or support. This is where the role of municipalities becomes

[1] In 2019–2020, a large number of train coaches were fitted with bio toilets, which addresses the problem to some extent by processing human waste into organic matter. However, it does not address the caste character of sanitation work.

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relevant. Under the Smart Cities Mission, municipalities and smart city cells have the opportunity to upgrade and modernize sanitation infrastructure to eliminate the reliance on caste-based exploitation. However, this has not been the case. By and large, cities have opted for superficial beautification projects under the Smart Cities scheme, introducing digital components into existing infrastructure but not fundamentally improving or rehauling them (Khan, Taraporevala, and Zérah 2018).

While surveillance is quite central to the notion of 'smartness' in these projects, it has very different implications for different groups of city residents (Monahan 2018). Many cities have introduced digital technology into sanitation management, which some have referred to as a 'surveillance revolution'; however, this surveillance primarily targets Dalit sanitation workers (Khaira 2020). In many of the smart cities, such as Nagpur, Nashik, Pimpri Chinchwad, Bengaluru, Trichy, Vishakhapatnam, and Patna, one of the first smart city projects to be implemented was the addition of GPS trackers to waste collection carts and the vehicles used by sanitation workers (*Moneycontrol News* 2020). In other places such as Chandigarh and Panchkula, sanitation workers themselves have been asked to wear smartwatches with GPS tracking. The data from these devices are tracked by municipalities and urban managers with the intention of disciplining workers with pay cuts and other punitive measures for any perceived shortcoming. At the same time, urban policy programmes have failed to increase the budget allocated for waste processing and sanitation infrastructure. As mentioned before, sanitation work in both public and private spaces continues to be dangerous, insecure, and life-threatening and is performed predominantly by Dalit workers. This reflects the colonial approach of turning each individual into a mapped and legible entity for the purpose of profit maximization but without any corresponding investments in their welfare. It is thus clear that the postcolonial urban regime in India, especially under neoliberalism, has been replicating the same logics as the colonial state while treating caste subalterns as displaceable and disposable.

It is evident that urban life in India is maintained through caste-based exploitation. The narrative of caste in urban India would, however, be incomplete without a mention of the strong and resilient resistance movements led by anti-caste activists and caste subalterns. In the next section, we will trace the contributions of anti-caste politics towards reimagining the urban sustainability agenda. Through this, I seek to demonstrate that the mainstream climate justice movement in India is yet to address caste seriously and that doing so is imperative for realizing a future course of action.

Over many past decades, anti-caste social movements have been striving to expose the close connections between caste injustice and resource extraction. Examples of this abound in agrarian and forest-based contexts. Protest movements

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against development-induced displacement, struggles for institutionalizing the rights of forest-dwelling communities, and peasants' movements for land rights and sustainable agriculture practices all have a marked anti-caste character, often articulated through the vocabulary of human rights (Ranjan and Kashwan 2021). These movements highlight distributional disparities in terms of which resources are seen as available for extraction and who is left to shoulder the associated risks. They also expose procedural disparities in terms of who gets to make decisions about resource use and whose lives are most affected by these decisions. The issue of recognition has been raised by some recent anti-caste movements such as the Dalit protests in Una, Gujarat, in 2016. Following a horrific attack on four Dalit men by upper caste cow-protection vigilante groups, Dalit groups across many districts went on a strike and refused to engage in their inherited occupation of handling animal carcasses. The protests involved collective action with a visceral impact such as letting animal carcasses pile up in villages, dumping carcasses outside the district collector's office, and boycotting Independence Day celebrations (Thekaekara 2016). The movement foregrounded the indispensable role played by Dalits in sanitation work and the integral connection between their labour and the natural and built environments. The movement was successful to the extent that one of its leading spokespersons, Jignesh Mevani, got elected to the Gujarat State Assembly in 2017. The movement's attention expanded from opposing atrocities to claiming land rights and securing land titles for Dalits (Dalit Camera 2016).

Movements such as the Una anti-caste uprising and Safai Karamchari Andolan are left out of the mainstream imagination of climate justice in urban India. Many urban groups have successfully challenged development interventions based on environmental concerns, but they largely remain confined to what Amita Baviskar (2020) describes as 'bourgeois environmentalism'. This is a form of environmental activism that is targeted toward establishing an aesthetic of ordered spaces, where nature is available for elite recreation, and the blame for environmental degradation is placed on caste/class subalterns. Institutionalized forms of bourgeois environmentalism can be seen in the functioning of agencies such as the National Green Tribunal (NGT), the smart city cells, and municipalities. One of the mechanisms through which this takes place is the procedural exclusion of caste/class subalterns from decision-making. Two examples discussed below elucidate this.

In 2017, the NGT banned construction in the old town area of central Shimla, essentially blocking all redevelopment proposed under the Shimla Smart City plan (Sharma 2019). It upheld the order in 2018, quashing the review appeal of the state government. The campaign that had brought the issue before the NGT was led by a group of elite environmentalists who were justifiably concerned about the sensitive

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ecological context of the city and the stress the proposed redevelopment would cause it. However, neither their campaign nor the NGT order took any cognisance of the community already living in ecological duress in the Krishna Nagar area. None of the residents of this area was consulted, and even after the NGT ban on construction, they continued to live in unsanitary conditions and at risk of landslides and flooding.

In Nashik, another proposed smart city, a citizens' campaign successfully targeted the de-concretization of the Godavari riverbed in the central temple complex area (Nitnaware 2020). This was achieved after a long-drawn legal battle involving a PIL in the Bombay High Court. While the campaign has been widely celebrated as a move towards restoring the river to its 'natural' state, its success has eclipsed the many other concerns of subaltern groups living and working along the river. The main focus of this campaign was reinstating the natural springs in the riverbed that had religious and ritual significance for Hindu devotees. Issues of river pollution, deposition of industrial effluents, and recruitment of manual labour for river cleaning became secondary to the primary concern of religious and aesthetic purity. De-concretizing the riverbed ultimately proved beneficial for controlling seasonal flooding, but the lives of the Dalit and Adivasi workers recruited for manually cleaning the polluted river remained unchanged.[2]

This issue of environmental and climate justice movements in India glossing over questions of caste or remaining indifferent to caste injustice has not gone unnoticed. Scholars and activists have noted that many of the postcolonial environmental movements against resource extraction and displacement have been led by women and Adivasis. However, caste subalterns (especially Dalits) remain under-represented in environmental politics (Sharma 2012).

This absence of recognition takes many forms. The erasure of Dalits from environmental politics has been described as 'eco-casteism' (Sharma 2017). For instance, anti-caste assertions such as the Mahad Satyagraha of 1927, which claimed Dalits' right to use public tanks and demanded equitable distribution of resources, have not been recognized as environmental struggles. Widening the canon of environmental thought in India and recognizing anti-caste philosophers such as Ambedkar as ecological thinkers will allow for greater recognition of caste in environmental discourse (Kumar 2016).

[2] Caste and conservation in the context of the Godavari in Nashik have been discussed in detail in an episode of the *Confronting Caste* podcast (Kings India Institute 2021): https://soundcloud.com/kings-india-institute/pollution-conservation (accessed 4 June 2021).

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Conclusion: setting an agenda for caste justice in/as climate justice

This chapter has made four key arguments regarding caste and climate justice in India. First, it demonstrated that caste-based extraction has been foundational to capitalist development since colonial times. The colonial government imposed a new property regime that allowed it to extract revenue from colonies that was then invested in building the core infrastructure of the global capitalist system. These property regimes were created through the displacement and dispossession of caste subalterns, the entrenchment of existing caste hierarchies, and the institutionalized deprivation of Dalit–Adivasi groups. Second, the chapter outlined how the absence of property rights continues to shape caste experiences in contemporary India. Drawing on examples from the urban metropolitan context, it shows how the enforced displaceability of caste subalterns continues to fuel urban planning, even while the project of planning itself is entirely dependent on the labour of displaced migrant workers. This shows the continuing role of caste-based extraction in sustaining growth and development in postcolonial India. Third, through the example of urban sanitation work, the chapter has highlighted how the integration of digital technology in urban development has been a bane rather than boon for the predominantly Dalit sanitation workers. The opportunity for deploying technology to eliminate caste-based extraction has been ignored in favour of creating tools of surveillance that further caste-based exploitation. Finally, the chapter has shown the wide chasm between anti-caste politics and urban environmental movements. While anti-caste struggles across the country have made visible the close connection between ecological crises and caste injustice, urban environmentalists have largely failed to account for this in their agendas or even to recognize caste as an important factor in thinking about the environment.

Based on these arguments, I propose that caste injustice has been a constitutive force in bringing about the climate crisis we are faced with today. Moreover, in contemporary attempts to combat climate injustice at the national and international levels, the issue of caste has remained marginalized. This has rendered attempts at climate justice partial at best and self-defeating at worst. A comprehensive and meaningful approach towards tackling the climate crisis would need to fundamentally reimagine climate justice as caste justice. To be able to do this, our scholarly and activist efforts must: (*a*) recognize caste as a key factor that governs human–environment interactions, (*b*) explore and understand the deep histories of caste-based extractions, and (*c*) adopt an anti-caste approach towards mapping the distributional and procedural features of India's nascent climate movements.

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