CHAPTER 11

Reimagining off grid sanitation: the long road from shit to "brown gold"?

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Introduction

Once viewed as the "the last taboo" (Black and Fawcett 2008) in international development, sanitation is now considered pivotal for human wellbeing, productivity and health, and to realising all the UN Sustainable Development Goals (SDGs). Safely managed sanitation, however, goes beyond having access to toilets. As outlined in SDG 6, it means having a toilet at home that separates the user from shit and safely manages faecal waste at all stages in the sanitation chain: containment, emptying, transport, treatment and reuse or disposal (Hueso Gonzalez *et al.* 2024).

Sanitation remains one of the most off-track SDGs, with 3.4 billion people – or 46% of the world's population – still lacking access to safely managed sanitation (UNICEF and WHO 2023). While toilet coverage has increased more rapidly in urban than in rural areas, the situation of the poor in rapidly urbanising areas of the global South is critical because of poor or unsafe excreta disposal, inadequate faecal sludge management (FSM), lack of adequate infrastructure for sewage and wastewater collection, and treatment, as well as gender, class and related exclusions in relation to sanitation (Mitlin 2015; Truelove 2011). Over 50% of the world's population is urban and this is projected to increase to 6 billion by 2045. All these issues make safely managed sanitation in urban areas "one of the world's most urgent challenges" (Andersson *et al.* 2016:1).

This paper draws on research from "Towards Brown Gold" ², a project that focuses on off-grid challenges in global south cities by looking at marginality, sanitation and wastewater challenges in rapidly urbanising areas in Asia and Africa. The starting point is that global and national sanitation drives tend to focus only on the visible aspects of being "on grid" in terms of hardware, toilet connections, and even treatment systems but rarely address the invisible and dangerous aspects of "being off grid" that are the focus of our study. These include: the invisible and powerless shitizens (cf. Cohen 2010) who are denied their basic rights to clean water and safely managed sanitation; the invisible flows of dangerous pathogens due to poor toilets, improper FSM, drainage and containment, and water contamination. In particular, poor residents, migrants, lower castes, landless slum-dwellers and scavengers are caught between these on-off grid dynamics and are the worst affected by the hazards of shit and wastewater, especially in areas not connected to centralised systems (and unlikely to be so in the foreseeable future). Issues concerning water contamination, gender, equity and sustainability are thus likely to be the second and third generation challenges of sanitation (Bhatkal *et al.* 2024).

Yet, can these challenges also be an opportunity to rethink and reimagine off grid and non-networked towns as a fertile ground for innovations that are people-centred, sustainable and equitable, and that also contribute to economic growth? Faecal sludge is rich in water, nutrients and organic compounds, but usually this "brown gold" remains hidden in the sludge. A circular economy approach of resource recovery and reuse holds the promise of human shit becoming "brown gold", through upcycling into energy (biogas production), agricultural usage (biomass fertiliser), animal feed or fuel, and many more industrial outputs.

The project thus sought to understand the potential for reuse of faecal waste in rapidly urbanising areas, and it also focused on how marginalised communities experience

sanitation. Brown Gold refers to the safe (re)use of shit and wastewater that unlocks its potential as a resource. The research pursued was interdisciplinary and transdisciplinary; it sought to integrate the social sciences, engineering, microbiology as well as the creative arts in order to understand the socio-political, technical, cultural and microbial processes and contexts of sanitation and waste processes. Methods included semi-structured and key informant interviews, participant observation, stakeholder dialogues, policy analysis (social science), photovoice, photoelicitation and artistic performances with artists and sanitation workers (creative arts) as well as shitflow diagrams and microbiological testing of wastewater (natural sciences). We worked in five rapidly urbanising areas across four countries: Nanded and Alleppey in India, Mekelle in Ethiopia, Wa in Ghana, and Gulariya in Nepal. This article will largely focus on the research from India.

Why re-imagine off-grid sanitation?

Urban and peri-urban research in the global South has highlighted the limits to the model of centralised and universal water and sanitation provision (Mehta and Karpouzoglou 2015) and the "bacteriological city" (Gandy 2006) based on global North models. These models have prioritised the new construction of centralised infrastructure with flush toilets and water-borne sewer systems geared toward large cities and better-off neighbourhoods (McGranahan 2015), neglecting off-grid towns, peri-urban areas and informal settlements, where inappropriately designed toilets along with underdeveloped FSM systems and poor (or non-existent) sewerage networks abound. These can lead to considerable risks to human health through unhygienic environments and surface/groundwater contamination because of septage and/or faecal solids discharge), having knock-on effects on the realisation of other rights such as food, life, health, housing, and education, security and political rights of participation, and thus having a direct bearing on the fulfilment of other SDGs. Due to skewed access to power, and



Fig. 1: A gathering pictured during a meeting of sanitation workers and manual scavengers in Valmiki Nagar. [Photo: L. Mehta]

exclusionary practices, marginalised groups such as migrants, women, homeless or pavement dwellers experience these risks in more severe ways. Their poor economic and social status exposes them to significant vulnerabilities, trapping them into endemic cycles of poverty and ill being (Joshi & Morgan 2007). Work and time burdens as a result of unmet or poor sanitation are disproportionate for women, who are also exposed to sexual violence. Finally, marginalised groups are not only users of inappropriate services, they are often the service providers of high-risk, poor quality sanitation facilities and infrastructure.

In situations of limited sewerage coverage and on-site toilets, Faecal Sludge Management (FSM) is critical to safely managed sanitation and involves emptying, conveying, treating and disposal stages. Yet, much of the focus is operational with manuals and toolkits providing key action points leaving much scope to understand the wider policy, financial and social implications. Millions of tonnes of shit are generated every day and collected as FS from onsite sanitation systems in the global South (Nikiema et al. 2014). This waste is rich in nutrients and organic compounds (Otoo and Drechsel 2018; Gebrezgabher et al. 2015). Resource Recovery and Reuse (RRR) allows for energy, water and nutrient recovery, addressing not only the sanitation grid but also the water and energy grids providing additional income streams for poor users (Murray and Buckley 2010). The concept of the "circular economy" has gained significant traction in recent years, emerging as a powerful force in policy narratives on sustainable development across sectors, including sanitation. However, emerging critiques have highlighted the domination of techno-centric and economic values, with a neglect of the socio-culturalpolitical dimensions of circularity in sanitation (Bhatkal et al. 2024; Corvellect et al. 2021). Furthermore, focus on the design, implementation and financing of FSM and RRR often neglects the intersect of gender, class, caste, ethnicity and the influence of politics, political economy and contested knowledges, issues that we examine in our study. Thus the critical social science and humanities lens is also required to understand the cultural politics of shit and its reuse and issues of social exclusion.

Finally, "Community-Led Total Sanitation" (CLTS) has played a key role in Africa and Asia in tackling the challenges associated with open defecation and poor toilet access. In the past two decades, CLTS has been widely adopted by international and national agencies to roll out sanitation (Mehta and Movik, 2011; Kar 2018). It has led to thousands of low-cost latrines and toilets springing up all around the global South and is currently implemented in over 65 countries, albeit with challenges regarding slippages and sustainability (Hermez *et al.* 2023). It was pioneered by Dr Kamal Kar, a development consultant from India and provides tools for participatory planning that motivates behaviour / attitude changes to move from open defecation to the construction of mostly self-funded toilets (Kar 2018), which does raise questions regarding the implications for very poor people and their human rights, especially those who already face extreme poverty or marginalisation in their communities (Galvin 2015).

While this approach has spread rapidly in rural areas, there are questions regarding the sustainability of its impacts on behaviour change and the capacity to ensure equitable access to safe sanitation for all. While Community-Led Total Sanitation (CLTS) and CLTS-inspired programmes have helped countries like India and Nepal achieve Open Defecation Free (ODF) status in 2019, numerous studies show that millions of people in South Asia continue to defecate in the open (Sharma 2023: Yadgar 2019).

There are also questions regarding its application in urban contexts where the complexity of barriers and challenges poses greater hurdles for successful CLTS implementation. These include (1) space constraints and tenure issues that make it difficult to build individual latrines and contain shit locally; (2) technocratic, bureaucratic and institutional rigidity; (3) the limits to community-based approaches without government support and the need to co-produce services and (4) crucially, problems with dealing with faecal waste management. One of the case studies analysed in this paper is of Nanded in the

Maharashtra state of India which was the site of an urban experiment around CLTS that I turn to later in this paper.

India's sanitation challenge

Every year the torrential monsoon rains lay bare the inadequate state of sanitation, sewage and drainage in India's cities and towns. Poorly constructed toilets, septic tanks and drains get choked or overflow, becoming a breeding ground for disease and exacerbating the risks and precarious conditions faced by poor residents and by migrants as well as by waste



Fig. 2: Open drains in Mhoigali [Photo: L. Mehta]

handlers and sanitation workers. While urban wastewater hazards are most visible in the monsoons, in reality only 28% of India's urban sewage is treated (India Water Portal 2023), with the rest released into rivers, seas and streams, thereby turning the environment into an open sewer.

India has a rapidly growing urban population. In the 2011 census, 31.8% of India's population was urban (Government of India 2021), and now several estimates suggest that over 50% of Indians may well live in urban or peri-urban areas (Pandey 2023). In India, as in many other countries of the majority world, centralised and capital-intensive sanitation and waste management systems are largely restricted to the mega-cities, with towns and smaller cities disconnected from centralised treatment plants and sewage systems, and likely to remain so for the foreseeable future. Until 2015, about 600 million people defecated in the open and India had the world's highest prevalence of open defecation (WaterAid 2015). While Prime Minister Modi proudly declared in 2019 that India was ODF, this is questionable and contested, and there is still significant open defecation, especially in rural areas (Aggarwal 2021).

The Brown Gold project has conducting research in urban towns in Maharashtra and Kerala, on issues that go beyond toilet construction and that include second- and third-generation sanitation challenges such as wastewater and faecal sludge management.

Specifically we focussed on Nanded, in Maharashtra, which pioneered CLTS at a citywide planning level (2011-2012), and Alleppey (Kerala), which have been declared as the country's cleanest towns (CSE 2017) and where academics from the Indian Institute of Technology (Bombay) as well as local planners and activists have initiated the CANALPY ³ project with the Kerala Institute of Local Administration, to reclaim the canal as commons. These two sites in India highlight the massive socio-economic diversity and different state policies and experiences. Our research has found that even if towns and small cities have achieved "Open Defecation Free (ODF) Plus" status, many areas remain exposed to limited or unsafe excreta disposal, inadequate FSM and lack adequate infrastructure for sewage and wastewater collection and treatment. In unplanned and growing towns, localities occupied by migrants, Dalits and other socially marginalised groups routinely encounter poorly managed sewer networks, blocked toilets and open drains full of excreta which make them often resort to open defecation. Also despite being ODF, many cities and towns are sustained by informal practices of waste collection, relying heavily on the labour of lower castes (Dalits) as manual scavengers.

Challenges around Faecal Sludge Management

In India, over 1.2 billion people generate nearly 1.75 million tonnes of excreta daily. It is practically impossible to connect every house to the sewer system (Rohilla *et al.* 2016). Over 65% of urban India relies on onsite sanitation systems such as pits and septic tanks (Chary *et al.* 2017). While there has been significant progress in faecal sludge treatment plants (FSTPs), especially in Orissa and Maharashtra, many are underutilised in other parts of the country or do not function properly.

According to the Ministry of Housing and Urban Affairs (MoHUA), Kerala with 47.7 % and Maharashtra with 45.2 % are amongst the most urbanised states in India. Kerala is characterised by an urban-rural continuum, and as many cities and towns have grown beyond their thresholds, the lack of essential pathways for sanitation management is putting people's lives at risk, particularly those living on the margins. While Kerala has achieved "Open Defecation Free (ODF) Plus" status by the Centre, concerns persist regarding the quality of the containment systems and the risk of faecal contamination of surface and groundwater. Yet Kerala lags behind other Indian states in terms of sewerage infrastructure provision, and liquid waste management issues have not got the same priority as drinking water provision and solid waste management. Despite having early success in universal toilet coverage, in Kerala, a state with a population of about 34 million people, it only has three FSTPs, and local governments often struggle to designate and acquire space for their construction, due to local protests and other technical and administrative challenges. The problems are particularly acute in areas with a high water table, especially along the coast (Hariprasad).

By contrast in Maharashtra, officially at least, sewage coverage is much higher. According to a study in 2020, nearly 55% of urban households in the state were connected to sewerage systems. FSTPs have been proposed in 311 cities of which 214 are already functional and another 22 are under construction (Mehta *et al.* 2023). In many parts of India, mechanised and manual pit-emptiers or sanitation service providers play a crucial role in bridging the gap between sanitation infrastructure and sanitation service provision. However, these service providers are mostly employed in the informal sector or even work "illegally" (see below) in septage cleaning, either individually or in groups, because often the local governments lack facilities and waste treatment arrangements, especially in areas that are considered "marginalised" (both socially and in topographical terms). Due to the lack of a state-led treatment system, waste is frequently disposed of unsafely, putting the health of both service providers and local communities at risk.

Marginality, caste, class, gender and agency

A big part of our research has been to address the ongoing marginalisation of sanitation workers and communities, based on caste, class, gender, and migratory status in urban areas. Both manual and mechanised septic tank cleaning workers often operate without

safety equipment or personal protective equipment (PPE) because their work operates entirely in the realm of the informal sector. Yet, these informal (and often "illegal") sanitation service providers play a crucial role in bridging the gap between sanitation infrastructure and sanitation service provision and in septage cleaning, given the lack of arrangements from local government. Yet their work is often invisible and they are subject to inhumane work conditions, debilitating infections, injuries, social stigma and even death.

While manual scavenging is officially banned in India, ironically problems in the current system often increase reliance on these workers. Machine cleaning is promoted in many policies, yet existing septic tank designs are often not suitable for machines, which often fail to remove the sludge. Thus, manual scavengers and other informal sanitation service providers continue to clean blocked sewers, overflowing chambers and septic tanks, and provide cheap labour for the maintenance of the sanitation system. They play a crucial role in bridging the gap between sanitation infrastructure and sanitation service provision and in septage cleaning, given the lack of formal arrangements. Data from 2018 to 2023 reveals that over 400 people died while cleaning septic tanks and sewers (PTI 2023). Gireesh, a service provider from a small town in Kerala, who owns a truck and basic equipment for septic tank cleaning, expressed his frustration: "We perform an essential service for the community, but due to the lack of proper treatment facilities, we are forced to dump the waste in open areas or water bodies. This exposes us to hazardous waste and leads to police arrests, penalties, and attacks from locals." Malathi, a contractual worker from one of the municipalities in Maharashtra emphasised the lack of healthcare and other basic facilities for women sanitation workers, who face excessive burdens managing both household chores and challenges while cleaning in the slums, given the poor sanitation facilities.

Despite the urgency of India's urban sanitation crisis, in the 2024-2025 budget, Drinking Water and Sanitation received a budgetary allocation of Rs 77,390.68 crores, a meagre increase of only 0.5% from the 2023-2024 allocation with 90 percent of money allocated to the National Rural Drinking Water Programme. The flagship sanitation programmes Swachh Bharat Mission (SBM) Urban and SBM Grameen received no increase in funding. Funding for the AMRUT and Smart Cities Mission has been reduced from Rs 13,200 crores to Rs 10,400 crores which include components for sanitation and waste management in different cities and there are no provisions for manual scavengers. The current budget also does not have any provisions to rehabilitate manual scavengers or sanitation workers employed in hazardous conditions, highlighting their continual marginalisation in policy and planning. While the 2022 NAMASTE scheme of the Ministry of Social Justice and Empowerment mentions rehabilitation as one of the objectives, the emphasis is on providing safety and skill training to the workers. This fails to address the historical injustices faced by these communities and does precious little to help them out of the endless loop of waste labour. I now turn to focus on the case of Nanded city in Maharashtra.

The politics of waste, marginality, power and agency in Nanded, Maharashtra

Nanded-Waghala city is the headquarters of Nanded district in the Marathwada region of Maharashtra. With a population estimated at 739,000⁴ (United Nations Populations Projections, 2023), it is the second-largest urban centre in the predominantly agricultural district. Nanded is relatively spread out and segregated, rather obviously, on class and caste lines. This creates spatial clusters of poor sanitation that are often far removed from the vision of the middle and upper classes and castes. In 2021, Nanded was declared ODF+ and ODF++ under the Swachh Bharat Mission, with about 95% of it having a connection to the sewer system (38% through the sewer network and 57% through open drains) (Mehta *et al.* forthcoming). However, in reality, many people we spoke to said that sometimes they had to resort to OD when toilets were clogged. In many settlements, the wastewater flows through open drains, overflowing in public spaces and in areas where children play. This particularly creates dangerous havoc during the monsoons with the widespread spread of malaria, dengue etc (*ibid*).

A 2021 study by the Centre for Science and Environment highlighted that 55% of Nanded's wastewater and faecal sludge is not properly managed and 57% of the waste water is not contained (CSE, 2021). The study also revealed that unsafely managed excreta originating from wastewater and not delivered to treatment stands at 50 percent (*ibid*). In 2022, although new sewage lines had been constructed in many places with funds from the Corporation, many were not functioning. Research conducted by project researchers found that while 86% of the neighbourhoods reported being on the sewerage grid, they complained of a poorly managed sewer network. Many toilets and sewer chambers remained blocked and unusable. The majority of households facing problems belonged to the Dalit or other marginalised communities. Sometimes the shit from the open drains even returned into the homes. Some communities even lacked access to toilets and were forced to defecate in the open, something that the authorities will always deny.

The employment of manual scavengers is officially prohibited by law. Yet, in one locality inhabited by erstwhile manual scavengers, most residents still work with and around waste and shit. We met one man who occasionally works as a manual scavenger, even though it is illegal. Although aware of the risks, including of death due to the toxic fumes, he says he sometimes cleans tanks at night because he needs the money. While he refuses to enter into the tank or pit, he wishes he had personal protective equipment. Caste prejudice and discrimination still dominate the lives of the erstwhile manual scavengers. The officials in the municipality however flatly denied that there was any manual scavenging in Nanded.

There are few accounts of CLTS being trialed in urban and peripheral urban settings in Africa and Asia, of which Nanded is one. In 2011 Nanded embarked on an ambitious plan of mainstreaming CLTS within its urban planning (*Nanded City Sanitation Plan 2011*) under the former Municipal Commissioner Dr Nipun Vinayak. However, the experience was short-lived because the Municipal Commissioner was transferred on short notice. The new Commissioner was not keen on the initiative, and municipal support for CLTS was then discontinued. I did fieldwork in the city in 2012 and 2022 together with partners and colleagues and had the opportunity to track the changes and impacts of CLTS over a ten year period.

While Nanded's experiment with CLTS was short-lived, residents in participating neighbourhoods continue to hold vivid memories of their activities and collaborations which we consider a key part of the institutional memory of CLTS. In 2012, many women in different localities spoke vividly of how clean their localities had become, and also the benefits of different programme, such as composting waste. One success story from CLTS in Nanded in 2012 was Kumbsa Nagar, a neighbourhood dominated by Neo-Buddhists (Dalits). Due to upper-caste Hindu notions of purity and pollution, they had faced a history of marginalisation. After the CLTS project was implemented they felt a sense of pride because visitors from Europe and Africa came to their locality to see their composting activities and how they had cleaned their neighbourhood. As a woman leader explained in 2012:

Previously even the dogs wouldn't care for us. Government officials would take us for fools. But now when we raise our voice, they say, oh! women from Kumbsa Nagar have come! Now if we raise our voice, the Government officials get scared. Many renowned people would come here every day, and the perception towards us changed. In the past if we needed to get our drains cleaned, we had to wait at the doors of the municipal office for hours, or even sometimes days. Now when we go there, the concerned people know us and we are welcomed into their offices, our work is done promptly. Now we are respected in the municipality. [Woman from Kumsa Nagar, Interview, February 2012]

Even a decade later, the legacy of CLTS led to more advocacy for improved services. Women often monitored garbage collection vehicles and made persistent calls to ensure accountability. Members of the Dalit community posted photos of leaky pipes and

sewage overflows in social media, tagging district administration to elicit action. Thus, the programmes succeeded in enhancing the voice and agency of many Neo-Buddhists, who enjoyed the national and international exposure they got and also gained courage to make and claim demands and rights from the State. Here the Buddhist Viharas played a crucial role.

The composting activities are a good example of circular economy, and RRR activities also provided Dalit women with an alternative source of income and livelihoods. In the first year, many residents of Kumsa Nagar had successfully packaged and sold their compost and the municipality initially helped them secure a buyer during the CLTS programme. However, the composting programme fizzled out after the momentum for CLTS died out. This is because there was no market for the product, and technical support was not provided to the local community to ensure technical quality assurance about the quality of both compost and sludge generated from faecal treatment plants. In fact, at times the quality of the sludge was poor so farmers refused to take it.

Unlike in some rural areas, the success of CLTS in an urban context is not just based on community actions and activities but also depends on the capacity and political will of the municipality to sustain the initiative and deal with issues concerning waste management. Particularly in urban settings, plans and solutions for sanitation need to be produced jointly by residents and the state, at least where conventional sewered toilets or other expensive systems are not feasible in the foreseeable future. In Nanded, this crucial support was missing and there also still remains a critical issue of toilets not being connected to working sewers and drains. We found that many officials had many elite and anti-poor biases. The municipality needed to be more sensitive to local challenges, and to go beyond the focus on "behaviour change" to also look at issues of inequality, marginality, discrimination, as well as challenging dominant class and caste biases and patterns of discrimination. Also, while women can be easy to mobilise around community-based sanitation, care needs to be taken that they do not just provide unpaid labour that adds to their existing household chores, and there should be genuine efforts to tackle gender stereotypes as well as unequal gender and power relations in communities. In other words, there was very little official buy-in and sustainable co-production, and this is why CLTS fizzled out and the initiative failed in terms of sustainability and equity.

Conclusions: Why shit is not yet Brown Gold

Growing extreme weather events, water shortages, and weak infrastructure mean that "flush and forget" systems are not always possible or desirable in India and beyond. The challenges we have outlined in this article can also be an opportunity to rethink and reimagine off grid urban areas as a fertile ground for innovations that are people-centred, sustainable, equitable and that also contribute to economic growth. According to the Toilet Board Coalition (2017), the sanitation crisis can enable innovations and shit can provide resources for a trillion-dollar global industry. In India alone, the predicted market for waste recovery and re-use is as large as USD\$9–28 billion (ibid).

While the circular economy approach of resource recovery and reuse (RRR) holds the promise of human shit becoming "Brown Gold", this article has demonstrated that multiple hurdles still persist. These include:

[1] An overemphasis on ODF and toilet programmes that often lack plans to manage the "shit" and that result in public health hazards due to the leaking of the shit into the soil, the environment and water bodies. This is due to the inability of local governments and other actors safely to dispose of faecal sludge and waste and the lack of attention to the crucial roles paid by mostly poor and marginalised formal and informal sanitation workers in local municipalities, mostly linked to the discriminatory caste system. Similarly, CLTS experiments in urban areas cannot just rely on the community to resolve the sanitation crisis. Instead there needs to be responsibility and political will on the part of local government and the municipality to step up and fill the gaps.

- [2] FSTPs are lacking in many towns and cities and even when they exist, problems of managing off-grid sanitation persist and the safe containment and disposal of shit can be expensive and difficult to organise. In small and medium-sized towns many marginalised communities have been offered poorly designed and poorly constructed toilets and the safe collection and treatment of faeces remains a technical challenge (Joshi *et al.* 2024).
- [3] There is silence on sanitation workers' rights in circular economy approaches (Joshi *et al.*). This article has revealed how formal systems often depend on the critical role played by mostly informal sanitation workers, including manual scavengers. While this article has focussed on India where caste discrimination plays a big role, in many countries of the majority world sanitation workers deal with locked, blocked, or filthy toilets, overflowing septic tanks, or beaches contaminated with sewage (*ibid*). Thus, the circular economy must go beyond the focus on economic and technical solutions to focus on basic human needs and the rights of poor and marginalised people, especially sanitation workers.

In sum, urban sanitation in India and many low and middle income countries is marked by systemic inefficiencies and insufficient resources compounded by biases that favour centralised sewered systems over on-site sanitation systems that entrench inequalities between elites in posh and formal localities and marginalised and vulnerable groups. Governments need to make urban sanitation a political priority by ensuring there is sufficient funding and institutional support to enable universal access to toilets and safe management of faecal waste, paying particular attention to reaching poor and marginalised residents in informal settlements.

In order to avoid a future of disease burden, contamination of precious water bodies and the marginalisation of poor urban dwellers, workers and migrants, governments must explore alternative models, increase financial allocations and commitments to safely managed sanitation solutions that are sustainable and inclusive for all, irrespective of class, gender, race, caste or social status.

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NOTES

1.

 $https://www.worldbank.org/en/topic/urbandevelopment/overview\#: \sim: text = Globally \% 2C\% 20 over \% 2050\% 25\% 20 of \% 20 the, housing \% 20 their \% 20 expanding \% 20 populations \% 20 need$

- 2. https://www.ids.ac.uk/projects/towards-brown-gold-re-imagining-off-grid-sanitation-in-rapidly-urbanising-areas-in-asia-and-africa/
- 3. See Alappuzhas' zero-eviction canal restoration project a model for the future? *Citizen Matters*.
- 4. The results of India's 2021 census have not been published. Thus, this article either draws on recent projections or provides data from the last published census of 2011.

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www.hse.gov.uk

To whom it may concern,

Access to hygiene facilities for drivers

This letter has been produced by the Department for Transport and the Health and Safety Executive (HSE), to reassure drivers, and to remind businesses of their obligations under the Workplace (Health, Safety and Welfare) Regulations 1992, to provide suitable toilet and hand washing facilities to drivers visiting their premises.

Businesses which make or receive deliveries, should ensure that drivers have easy and safe access to toilets and hand washing facilities to support their health and wellbeing whilst carrying out their important work, which supports the economy.

Preventing access is against the law.

Regulations 20 and 21 state that suitable and sufficient sanitary conveniences and washing facilities shall be provided at readily accessible places and that hot and cold running water and soap must be available to use. Whilst this obligation for business is not new, ensuring that hygiene facilities are made available to visiting drivers is especially important during the current COVID-19 crisis, to avoid unwanted public health implications and to help tackle the spread of the virus, at a time when there are fewer locations operating with facilities that drivers can access.

HSE guidance states that drivers must have access to welfare facilities located in the premises they visit as part of their work. The responsibility in law to provide access rests with the person in control of the premises.

You can obtain more information on infection control by contacting:

Public Health England: www.gov.uk/government/organisations/public-health-england

Public Health Wales: www.wales.nhs.uk

Health Protection Scotland: www.hps.scot.nhs.uk

Yours faithfully,

Baroness Vere of Norbiton
Parliamentary under Secretary of State

Department for Transport

Vere of Novbihar

Sarah Albon, CEO, HSE

Illustration 8: An important locus of labour struggles. The gig riders' right to toilet access. "I was literally bursting for the loo to the point. I couldn't hold it anymore and my local co-op refused to let me use the toilet when picking up an order from them. I showed him this letter and the manager begrudgingly let me use the facilities. I've had a few of these arguments over useless facilities and this letter has come in handy many times. Particularly with KFC for some reason." [Leetasker90].