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Urban Exclusion in Access
to Water and Sanitation in
LAHORE

Fact-finding study

Urban Exclusion in Access to Water and Sanitation in Lahore



Human Rights Commission of Pakistan

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Introduction

Lahore, Pakistan's second-largest city, faces mounting challenges in its water, sewerage, and drainage systems. Rapid urbanization, unregulated expansion, and inadequate maintenance have placed a significant strain on the city's capacity to provide equitable and sustainable water and sanitation services. The consequences are visible in recurring urban flooding, water contamination, and inadequate access to safe water and sanitation facilities—issues that disproportionately affect low-income and marginalized communities.

Backdrop

The water, sewerage, and drainage systems in Lahore have evolved through a combination of colonial legacies, post-independence urban policies, and piecemeal infrastructural interventions. As a colonial legacy, the water system in Lahore is rooted in the idea of the human-water divide. Its design, which is based on a static, stationary, technocratic, and engineering worldview, has been emulated by the successive postcolonial governments. It is essential to note that these outdated ideas are being replaced in many countries with insights from the discipline of socio-hydrology, which emphasizes the dynamic interactions between water and people.

Today, Lahore's population exceeds 13 million and continues to grow, putting immense pressure on natural resources and urban infrastructure. The Water and Sanitation Agency (WASA), under the Lahore Development Authority (LDA), is the principal body responsible for providing and managing water supply, sewerage, and drainage services. However, the agency faces severe challenges,

including outdated infrastructure, insufficient funding, overlapping institutional mandates, and limited community engagement. Much of the city still relies on groundwater extraction, contributing to a steady decline in the water table and raising concerns about long-term water security.

Drainage and sewerage systems are equally strained. In many low-lying and informal settlements, inadequate drainage infrastructure results in seasonal flooding, stagnant wastewater, and associated health risks. Poor coordination among urban institutions, coupled with limited public participation in planning and decision-making, has further weakened accountability and service delivery. These structural and governance challenges intersect with social inequalities. Low-income and peri-urban communities often face the most severe service gaps, lacking access to safe and affordable water and sanitation. Women, children, and persons with disabilities face additional barriers, particularly in areas without proper sanitation facilities or during flooding events.

Given these realities, the Human Rights Commission of Pakistan (HRCP) felt there was an urgent need to re-examine Lahore's urban water governance through a human rights lens—one that shifts the focus from technical fixes to equitable, participatory and accountable systems, ensuring that the rights to water and sanitation are effectively realized for all citizens. This fact-finding study has been undertaken to examine the state of Lahore's water, sewerage, and drainage systems, particularly in the aftermath of the Ravi River floods in August 2025, which also affected urban residential areas. By framing water and sanitation as fundamental human rights rather than mere service provisions, the study seeks to highlight the underlying issues of inequality, accountability, and governance that shape the city's water landscape. It aims to uncover how existing policies, institutional practices, and infrastructural gaps align—or fail to align—with the principles of participation, non-discrimination, transparency, and sustainability that are central to the concept of human rights.

The findings of this study are intended to provide evidence-based insights that can contribute to policy reforms and institutional strengthening, ensuring that all residents of Lahore, regardless of their socioeconomic status, can enjoy their rights to safe water, adequate sanitation, and a clean, healthy environment.

Methodology

The methodology for this fact-finding study was designed to move beyond technical assessments and examine how governance, institutional practices, and socioeconomic factors shape people's access to these essential urban services. In addition to reviewing related literature, the study used a qualitative approach to capture the structural dimensions of service provision and the lived experiences of citizens. Semi-structured interviews and informal discussions were conducted during August–October 2025 to assess coverage, functionality, and service quality, as well as social and institutional dynamics that protect or violate human rights in relation to municipal services.

This study adopted a human rights-based approach (HRBA) to assess the state of water, sewerage, and drainage systems in Lahore. The HRBA, which has been adopted by the UN and the European Union, is a 'conceptual framework for the process of sustainable development that is normatively based on international human rights standards and principles and operationally directed to promoting and protecting human rights'.¹ The approach utilizes human rights principles—universality, indivisibility, equality and non-discrimination, participation, and accountability—to empower citizens as rights-holders while establishing governmental organizations as the duty-bearers responsible for upholding human rights.

¹ <https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach>

Legal frameworks governing water, drainage and sewerage

International frameworks

International human rights law increasingly recognizes that access to safe water, adequate sanitation, and related services—such as sewerage and drainage—is essential for living a life with dignity. Although early human rights treaties did not explicitly articulate these entitlements, they are now firmly established through authoritative interpretations by treaty bodies, UN resolutions, and global policy frameworks. The right to water and sanitation form part of binding international human rights law primarily through the broader rights to an adequate standard of living and to health, as set out in Articles 11 and 12 of the International Covenant on Economic, Social and Cultural Rights. Pakistan signed the Covenant in 2004 and ratified it in 2008. The right to an adequate standard of living is also enshrined in Article 27 of the Convention on the Rights of the Child and in Article 28 of the Convention on the Rights of Persons with Disabilities, both of which Pakistan has signed and ratified.

In July 2010, the UN General Assembly formally recognized the human rights to water and sanitation when it passed resolution 64/292, which declared ‘the right to safe and clean drinking water and sanitation as a human right that is essential for the full

enjoyment of life and all human rights'.² The resolution was passed with 122 votes in favour (including that of Pakistan) and none against.³ A few months later, the UN Human Rights Council also adopted a resolution without voting, which affirmed that 'the human right to safe drinking water and sanitation is derived from the right to an adequate standard of living'.⁴

These resolutions acknowledged that water and sanitation are essential for the realization of all human rights and call on states to scale up efforts to provide safe, clean, accessible, and affordable services. Subsequent UN mandates, including the work of the Special Rapporteur on the human rights to safe drinking water and sanitation, have expanded the understanding of states' duties to include not only water supply but also adequate sanitation systems, wastewater management, and drainage, especially in urban settings where poor drainage can threaten health, housing, and environmental rights.

National and provincial legal and policy frameworks

Pakistan has not yet fully recognized the human rights to water and sanitation in the specific terms used in international human rights law. However, it has made some significant legal and policy advances. The Constitution does not explicitly guarantee a standalone right to water or sanitation. Nevertheless, Pakistani courts have interpreted existing constitutional guarantees—especially the right to life (Article 9) and right to dignity (Article 14)—to include access to clean, unpolluted water. For example, in 1994, the Supreme Court held that the right to life encompasses the right to unpolluted water.⁵ Similarly, the Sindh High Court has affirmed that access to clean water is essential for a dignified life.⁶

² <https://docs.un.org/en/A/RES/64/292>

³ It must be noted that 41 members abstained from voting on the resolution. However, by 2013, all abstaining countries recognized the rights to water and sanitation through subsequent resolutions.

⁴ <https://documents.un.org/doc/undoc/gen/g10/166/33/pdf/g1016633.pdf>

⁵ *General Secretary Salt Miners Labour Union (CBA) Khewra, Jhelum vs The Director, Industries and Mineral Development, Punjab, Lahore* (1994 SCMR 2061).

⁶ *Sindh Institute of Urology and Transplantation vs Nestlé Milkpak* (2005 CLC 424).

A significant recent development is the 26th Constitutional Amendment, which added Article 9A, guaranteeing every person the right to a 'clean, healthy and sustainable environment.' Although this provision does not explicitly mention water or sanitation, it strengthens the constitutional basis for making claims to advance water-related rights. Still, the article's broad wording means that its practical effect will depend on how courts interpret it and whether follow-up legislation creates mechanisms for enforcement.

At the policy level, Pakistan adopted a National Drinking Water Policy (2009), which recognizes access to safe drinking water as a fundamental human right and sets goals for quality, equity, and improved infrastructure.⁷ In alignment with national policy, the Punjab Drinking Water Policy (2011) provides guiding principles for planning and coordination among provincial and local authorities.⁸ Implementation, however, has been partial. An independent review found that while the policy provided an essential rights-oriented blueprint and helped focus provincial priorities, its impact was constrained by implementation gaps, incomplete regulatory reform, ongoing water quality risks, and the need for sustained investment and stronger enforcement to translate the policy into universal, safe access.⁹

More recently, Pakistan's National Water Policy (2018) provided a broad, strategic framework for managing the country's water resources through integrated water resources management.¹⁰ This was followed by the Punjab Water Policy (2018), which focuses on provincial priorities related to the sustainable management and development of water.¹¹ A close reading of national and provincial policies suggests that they do not adopt a comprehensive human rights-based framework and lack clear entitlements, accountability mechanisms, and inclusive provisions for marginalized populations.

⁷ <https://mocc.gov.pk/SiteImage/Policy/DrinkingWaterPolicy.doc>

⁸ <https://hudphed.punjab.gov.pk/system/files/1-Punjab%20Drinking%20Water%20Policy%202011.pdf>

⁹ <https://www.unicef.org/pakistan/reports/towards-stronger-regulation-wash-services-pakistan>

¹⁰ <https://mowr.gov.pk/SiteImage/Misc/files/National%20Water%20Policy.pdf>

¹¹ <https://faolex.fao.org/docs/pdf/pak191275.pdf>

Key findings

Bureaucratic hurdles

The provision of water, sewerage, and drainage services in a rights-based, equitable, and inclusive manner in Lahore faces serious hurdles from service providers and the bureaucracy. Departments and agencies continue to work in uncoordinated and fragmented ways, under conflicting logic, pressures, and targets, resulting in the waste of both taxpayers' money and their confidence in the public sector.

The absence of legislatively mandated local government in Lahore exacerbates the issue of accountability by removing clear structures for citizen representation, oversight, and responsiveness in municipal affairs. The provincial government's accountability mechanisms are plentiful but fragmented, much like the agencies they are intended to hold accountable.

In interviews with recently retired officials from water-related services in Lahore, HRCP found that technical and administrative staff, as well as bureaucrats, did not view the provision of services from a human rights perspective. In fact, they were uncomfortable with the human rights discourse, which they perceived as unnecessary and an impediment to the efficiency and delivery of their work. A bureaucrat remarked, 'Nothing would have been accomplished in Lahore if the government had been listening to the "human rights people".'

Provision of safe drinking water

The pervasive presence of bottled water in both public and private spheres stands as a stark indictment of a fundamental governmental failure: the inability to provide universally accessible, safe drinking water through public piped systems. This reliance on a privatized, commercialized solution creates a de facto two-tiered society, where one's purchasing power determines access to a basic human necessity. Consequently, this system systematically excludes the poor and marginalized, who are forced to bear the disproportionate burden of either spending a portion of their income on bottled water or risking their health with unsafe public supplies.

Instead of properly fixing the piped water system, the government has installed several filtration plants in major cities, where citizens can obtain filtered water. According to a July 2025 news report, approximately 30 percent of the 905 filtration plants installed in Lahore by various governmental organizations, including WASA, were found to be dysfunctional.¹² The remaining were reported to be running below their optimal efficiency. The HRCP mission visited 12 water filtration plants in Ghari Shahu, Baghbanpura, Krishan Nagar, Band Road, Taxali, Mian Mir, and the Railway Station and found several issues. As reported by users who were there to collect water, the water filters were not replaced in 2025. The plant premises were deemed unsafe and inaccessible for women, the elderly, and children. Due to a lack of maintenance, the walls were dirty, and the fittings of the water taps had become loose.

Water wastage

Water wastage in Lahore has not been sufficiently studied and is largely undocumented. The wasteful use of water, ranging from dripping taps to watering lawns and washing cars in front of the home, is deeply ingrained in urban Lahore's collective psyche. People's everyday practices, such as cooking, laundry, and personal hygiene, are water-intensive. This is mainly because water metering has never been accorded as a priority, and wasting water goes

¹² M. Ilyas. (2025, July 16). No clean chit for Lahore's filtration plants. *The Express Tribune*.

unpunished. Moreover, saving water in households, offices, and outdoor areas requires innovative solutions, such as water-saving taps and low-flow flush tanks, as well as microdrip irrigation systems for gardens.

The complaint redressal system in water and sanitation agencies perpetuates existing socioeconomic hierarchies. Complaints from poor localities often require repeated reminders and take longer to resolve. The Punjab Urban Resource Centre has documented more than 50 protests by communities in Lahore, whose complaints about odour in water and infrastructure breakdowns were neglected in the first eight months of 2025.

Building bylaws and development

The development standards and land use rules prescribed by the Lahore Development Authority's building and zoning regulations act against the water cycle as they block water seepage, cause runoff problems, and impede water recharging. Almost none of the road surfaces in the city are water-sensitive, except in a few streets (and in a cooperative housing society on Canal Road), where concrete paver bricks have been used, allowing water to drain through them.

Conventional building bylaws, often focused narrowly on structural integrity and outdated models of urban development, inadvertently encourage the proliferation of barren and unproductive rooftops. By failing to mandate or actively incentivize green roofs, these regulations permit vast expanses of concrete, tar, and other heat-absorbing materials to dominate the city's skyline. These sterile surfaces become significant contributors to the urban heat island effect, elevating ambient temperatures. This not only exacerbates energy consumption for fans, room coolers, and air conditioning but also represents a squandered opportunity for biodiversity, stormwater management, and even urban agriculture, locking Pakistan's cities into a cycle of escalating heat and environmental degradation.

The frequent and often haphazard raising of road plinths during repaving projects creates a dangerous hydraulic effect throughout urban neighbourhoods. With each incremental elevation of the roadway, the adjacent areas, particularly those inhabited by poor and marginalized groups, become lower in relative elevation.

During heavy rainfall, stormwater that would previously have drained across the street is now blocked by the raised concrete curb, forcing it to flow onto the now lower-lying land. This engineered runoff directly inundates the very households least equipped to handle it, leading to recurrent flooding, property damage, and health hazards from stagnant water.

Drainage and flooding

Natural and man-made disasters are closely linked to human rights because they directly affect people's ability to enjoy fundamental rights to life, health, housing, food, water, and security. While floods are often perceived as natural events, their impact is frequently shaped by human factors, including poor planning, inadequate infrastructure, and social inequality. Governments have a responsibility to prevent and mitigate the effects of flooding through effective disaster preparedness, early warning systems, and equitable recovery measures. When authorities fail to protect vulnerable populations, provide safe shelter, or ensure access to essential services, such failures can amount to human rights violations. Thus, flooding is not only an environmental or humanitarian issue but also a matter of human rights protection and state accountability.

Informal discussions were held with people who had been affected by urban floods in Lahore, including the Ravi River floods that occurred in August–September 2025, as well as with rescuers and flood experts to explore problems related to drainage and flooding. The findings highlight significant gaps in the understanding and response to floods in Lahore, despite the use of flood forecasting models and risk mitigation strategies. The glaring absence of a concerted effort to construct runoff water storage structures in Lahore represents a critical failure in urban planning, with cascading consequences for the city. Instead of capturing the immense volume of rainwater that seasonally deluges the metropolis, it is allowed to flow unchecked, overwhelming the antiquated drainage system and transforming streets into raging torrents that cause catastrophic urban flooding.

This missed opportunity not only exacerbates immediate damage to infrastructure and property but also means a precious freshwater resource is squandered, lost to evaporation and contamination. As a

result, the city oscillates between two debilitating extremes: destructive, monsoon-borne floods that bring life to a standstill, and prolonged periods of acute water scarcity, during which the groundwater table continues to decline perilously. This cycle of crisis and shortage has become a preventable, yet recurring, feature of life in Lahore, underscoring a dire need for visionary infrastructure that can harness the deluge to secure the city's water future.

In HRCP's interviews, respondents emphasized government indifference, unequal and selective responses to the flood, as well as discrimination and biases in flood response mechanisms. With their hard-earned furniture and other belongings damaged, they expressed vocally their hopelessness about the future. The respondents accused the government and private societies of neglecting to embank the Ravi properly.

The right to be informed on time was violated during the recent floods. Many people emphasized that they were not informed about anything related to the coming flood. Although there were official statements regarding floods and evictions, those were not specific enough to earn the trust of the people. The role of social media in informing people was inadequate and unhelpful.

In its interviews with flood experts and architects, HRCP learned that the city's built environment is constructed of flood-insensitive material. The land surface is impervious, and the design and materials used in roads and buildings contribute to the accumulation of water on the surface. Experts explained that underground works, such as sewerage, drainage, and water supply, are generally of poorer quality compared to visible surface works. Moreover, the standard street inlets in housing are inadequate and hence their discharge capacity is limited.

Discrimination and bias

HRCP's interviews with transgender persons and individuals living with disabilities underscored the difficulties they face in accessing water and sanitation in private and public spaces. Transgender respondents said they had repeatedly faced refusal when attempting to use washrooms in government buildings. Individuals with

disabilities reported that none of the buildings they had visited had an accessible toilet.

Retired municipal engineers and civil servants observed that officers tend to eschew sewerage-related problems, deeming these unworthy of their direct involvement. The working conditions of more than 10,000 sanitation workers in the city speak of societal bias and apathy towards those who keep the city clean. Media sources frequently report fatalities among sanitation workers resulting from exposure to hydrogen sulphide and methane accumulated in gutters. However, safety kits and appropriate tools are not always provided to sanitation workers.

Impact of climate change

Climate change has significant and far-reaching impacts on water, sewerage, and drainage systems, as it alters rainfall patterns, intensifies extreme weather events, and raises temperatures. These effects challenge both the availability and management of water resources, as well as the functionality of urban infrastructure. The primary impacts include water supply stress, increased flooding, overloaded drainage systems, damage to sewage infrastructure, degradation of water quality, and higher operational and maintenance costs. While these impacts are generally population-wide, the poor and marginalized classes are affected disproportionately.

In informal conversations with passersby outside Mayo Hospital, Ganga Ram Hospital, and the Lahore Metropolitan Corporation, HRCP asked them what they knew about *mosamiyati tabdeeli* (climate change), *maholyati tabahi* (environmental disaster), and heat waves. While none of the respondents could explain or define these terms, all of them spoke at length when asked about the weather. Their answers revealed the adverse effects of extreme weather patterns – such as extreme heat and excessive rainfall – on their daily lives and livelihoods.

It can be argued that carbon dioxide emitted by diesel-powered tubewells, along with various odourless and odour-producing gases from choked drains and overflowing sewage, contributes to environmental degradation and poses risks to human health. Most

issues related to gas emissions can be addressed through design modifications to the sewerage system and its regular maintenance.

Interviews with physicians in Mayo Hospital, Ganga Ram Hospital, and Doctors Hospital in Lahore confirmed that climate-induced diseases are on the rise. Some of these are related to water, drainage, and sewerage systems, which, if not appropriately maintained, provide a breeding ground for various bacteria and viruses. Moreover, warmer temperatures lead to longer mosquito breeding seasons, which in turn increase the spread of dengue, chikungunya, and malaria.

Recommendations

Viewed through a human rights lens, this report reveals serious violations of basic human rights norms in the design and delivery of water, sewerage, and drainage services. The following short- and long-term recommendations are proposed to enhance services and uphold human rights standards.

1. **Advocacy on legislating the human right to water and sanitation.** Pakistan has yet to legislate the human right to water and sanitation, despite court judgements that have interpreted existing constitutional guarantees to include access to safe water. A concerted advocacy for dedicated legislation is therefore essential—not only to align national laws with international commitments, but also to provide a clearer framework for policy, regulation, and accountability across the water and sanitation sector.
2. **Increase equitable access in informal and low-income settlements.** The provincial and municipal authorities should prioritize the regularization and upgrading of water and sanitation infrastructure in informal and low-income settlements through pro-poor service models. This includes extending piped water networks and installing community-managed toilets where household connections are not immediately feasible, while subsidizing connection fees and tariffs. Service provision should not be contingent on land tenure status rather than a privilege tied to formal property ownership.

3. **Ensure inclusive and non-discriminatory access to sanitation facilities.** The Punjab government and relevant municipal authorities should mandate universal access standards in all public and government buildings, including gender-inclusive and fully accessible public toilets. Clear directives must prohibit discrimination against transgender persons in the use of public facilities, with enforceable penalties for non-compliance. Building bylaws should incorporate mandatory accessibility criteria, while dedicated budget allocations must be provided to retrofit existing facilities to ensure accessibility for persons with disabilities.
4. **Reduce water wastage through water metering.** To curb unsustainable consumption, residential and commercial water metering should be introduced. It will financially incentivize conservation and minimize overuse and leakage. This initiative is not merely about installing measuring devices; it is a fundamental shift towards a culture of accountability and conservation. Implementing metering implies establishing a direct link between usage and cost. This transparent system makes users consciously aware of their consumption patterns and provides financial incentives for conservation.
5. **Regular operations and maintenance (O&M).** The current practice of selective O&M to address major breakdowns needs to be gradually replaced with a regular and reliable system of maintenance using efficient and effective methods. Instead of carrying out annual cleaning during the monsoon, the drains should be cleaned frequently. The drainage system also needs to be upgraded to reduce pollution and foul odours.
6. **Protect the safety and dignity of sanitation workers.** Municipal authorities must immediately eliminate hazardous manual sewer entry practices and enforce strict occupational health and safety protocols. This includes compulsory provision of certified safety kits, gas detection devices, mechanical sewer-cleaning equipment, insurance coverage, hazard allowances, and regular medical screenings. Accountability mechanisms should be introduced to ensure supervisory oversight, while senior officials must assume direct responsibility for sewerage management rather than delegating risk downward. Institutional reform should recognize sanitation work as

essential public service labour deserving of dignity, protection, and fair working conditions.

7. **Community-based complaints redressal mechanism.** Many small-scale and localized problems related to infrastructure failures, service interruptions, and routine maintenance can be resolved far more effectively when authorities work in partnership with community-based organizations. Establishing a structured, accessible, and transparent community-level complaints mechanism would enable quicker identification of issues, reduce response times, and ensure that residents' concerns are addressed before they escalate into larger system breakdowns. Such collaboration not only enhances efficiency and accountability but also fosters trust, promotes citizen participation, and establishes a feedback loop that enables authorities to improve planning and service delivery over time.
8. **Cultivate a culture of water preparedness.** The water authorities and the administration need to cultivate a culture of preparedness, which is essential in these uncertain times due to climate change. Given the increasing frequency and intensity of climate-related disruptions, water authorities and administrative bodies must move beyond reactive crisis management and embed preparedness into their everyday practices. This involves investing in early-warning systems, strengthening monitoring capacities, developing contingency plans, and training staff to anticipate and respond to extreme events, such as floods, water shortages, and heatwaves. A culture of preparedness also requires transparent communication with the public, coordination across agencies, and proactive maintenance of vulnerable systems. By institutionalizing readiness, authorities can mitigate risks, protect communities, and enhance resilience in an era of increasing climate uncertainty.
9. **Decolonize from volume-based quantifications to water-sensitive urbanism.** Urban water management in many developing contexts remains shaped by colonial-era engineering logics that prioritize large-scale, volume-based supply targets over ecological balance, local hydrology, and community needs. Moving toward water-sensitive urbanism requires reframing water not as a commodity to be endlessly extracted and distributed, but as a living system embedded in

social and environmental processes. This shift requires integrated planning that prioritizes recharge, reuse, green infrastructure, and participatory governance. By decolonizing these entrenched approaches, cities can become more resilient and equitable.