

Executive Summary

Overview

Access to clean and safe water is essential for life, dignity, and public health, yet remains out of reach for many globally. It is increasingly recognized as a human right under key international instruments, and in Pakistan, courts have interpreted the constitutional right to life and dignity to include access to water. Despite national and provincial policies, the country continues to face challenges ranging from pollution and climate change to weak governance that disproportionately affect vulnerable communities. These realities call for rights based, sustainable water management rooted in both domestic and international legal obligations.

Policy Recommendations

- Strengthen Enforcement and Accountability: Although water policies exist at national and provincial levels, implementation remains weak due to poor oversight and enforcement. Enhance monitoring and enforcement mechanisms of existing water quality and sanitation standards at federal and provincial levels to ensure compliance and timely corrective actions. Establish robust regulatory bodies with transparent reporting and public participation. This includes enforcing water pricing, metering, and pollution control to improve resource management and reduce contamination.
- Focus on Climate Resilience and Pollution Control: Develop adaptive management plans to address climate change impacts such as altered rainfall patterns, floods, and glacier melt affecting water availability and quality. Strengthen pollution controls to mitigate agricultural runoff, industrial waste, and toxic contamination that threaten water safety, with integrated approaches for water source protection at local and provincial levels.
- Enhance Community Engagement and Equity: Foster inclusive community participation in water governance to ensure equitable access and culturally appropriate services, explicitly targeting marginalized and vulnerable populations. Promote gendersensitive policies that reduce the burden on women and girls and empower communities through education and capacity building.
- Installing Community-Managed Reverse Osmosis Plants: Install energy-efficient and
 durable reverse osmosis plants in areas severely affected by water contamination,
 especially where industrial pollution and heavy metals are prevalent. Ensure these plants
 are designed for easy maintenance and incorporate local community involvement in their

operation and upkeep. Provide training to local operators to handle routine maintenance, monitor water quality, and quickly address technical issues.

Access to Water as a Human Right

Introduction

Water is essential for life. Its availability is not only a fundamental human right but also a cornerstone of social well-being, an indicator of prosperity. The shortage of water poses a serious challenge for communities, and when water is polluted or contaminated, it results in grave health consequences. Contaminated water disrupts human life both physically and mentally, undermining privacy, dignity, and overall health.

The 2024 Sustainable Development Goals ("SDGs") report shows that nearly 2.2 billion people worldwide still lack access to safe water, 3.4 billion people do not have safely managed sanitation, and 1.07 billion people lack basic hygiene services at home. In schools, 646 million children remain without adequate hygiene facilities. The report warns that the world is not on track to achieve sustainable water management until at least 2049.¹

Children are disproportionately affected by the lack of clean water. Every year, nearly 4.8 million children under the age of five die due to preventable causes linked to unsafe water, sanitation, and hygiene. This equates to about 13,100 children under five dying every day from infectious diseases, including diarrhea and malaria.

This global crisis is reflected in Pakistan's own challenges, where legal recognition of the right to water exists, but its realization remains uneven. The Constitution of Pakistan protects the right to life and dignity of every person, and the Supreme Court has interpreted this to include the right to have water free from pollution and contamination.² Yet this raises a pressing question: Can the right to life and dignity truly be upheld, when people are denied access to clean water?

¹ United Nations, The Sustainable Development Goals Report 2025 (UN 2025). https://unstats.un.org/sdgs/report/2025/The-Sustainable-Development-Goals-Report-2025.pdf.

² General Secretary, West Pakistan Salt Miners Labour Union (CBA) Khewra, Jhelum v Director, Industries and Mineral Development, Punjab, Lahore [1994] SCMR 2061 (SC Pak) https://www.globalhealthrights.org/wp-content/uploads/2013/02/SC-1994-Salt-Miners-v.-Director-Industries-and-Mineral-Development.pdf.

International Law on the Right to Water

Clean and safe water is a recognized human right. According to the Universal Declaration of Human Rights ("UDHR") 1948, Article 25, everyone has the right to an adequate standard of living, which includes access to safe and clean water.³

The International Covenant on Economic, Social and Cultural Rights ("ICESCR"), in Article 11, recognizes the right to an adequate standard of living⁴, from which the right to water and sanitation is derived. State parties to the Covenant are obligated to ensure the provision of basic needs, including safe and clean water and food. They must guarantee accessibility to water in educational institutions, workplaces, and households, providing water that is safe, pure, and free from all harmful chemical substances for drinking, personal sanitation, food preparation, and household use. Importantly, this access must be ensured without discrimination, particularly for the most vulnerable and marginalized communities.

The UN Committee on Economic, Social and Cultural Rights ("CESCR") has elaborated on the right to water by specifying state obligations to ensure the availability, accessibility, quality, affordability, and acceptability of water and sanitation for personal and domestic use.⁵

Furthermore, UN General Assembly Resolution 64/292 (2010) formally recognizes the right to safe and clean drinking water and sanitation as a distinct human right essential for the full enjoyment of life and all other human rights.⁶

Domestic Laws on the Right to Water

While "access to water" is not explicitly mentioned in the Constitution, the Supreme Court of Pakistan has repeatedly affirmed that this right is implicit within broader constitutional protections.

The Court has recognized access to water as a component of the right to life under Article 9. In the 1994 case *General Secretary, West Pakistan Salt Miners Labour Union (CBA) Khewra*

³ Universal Declaration of Human Rights (adopted 10 December 1948 UNGA Res 217 A(III)) https://www.un.org/en/about-us/universal-declaration-of-human-rights.

⁴ International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, UNGA Res 2200A (XXI)) https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights.

⁵ UN Committee on Economic, Social and Cultural Rights, 'General Comment No. 15: The Right to Water (Arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights)' (2002) UN Doc E/C.12/2002/11 https://digitallibrary.un.org/record/486454?ln=en&v=pdf.

⁶ The human right to water and sanitation: resolution (adopted 28 July 2010 UNGA Res 64/292) https://digitallibrary.un.org/record/687002?v=pdf.

vs. Director, Industries and Mineral Development, Punjab, the Supreme Court explicitly acknowledged the right to safe and clean water as essential to the constitutional right to life. It held that in cases where water is contaminated or polluted, individuals exposed to such hazards are entitled to claim that their fundamental right to life has been violated.⁷

On another occasion, the Court connected the right to a pollution-free environment with the constitutional right to dignity. It stated:-

The word 'life' in the Constitution has not been used in a limited manner. A wide meaning should be given to enable a man not only to sustain life but to enjoy it. Under our Constitution, Article 14 provides that the dignity of man and, subject to law, the privacy of home shall be inviolable. The fundamental right to preserve and protect the dignity of man under Article 14 is unparalleled and could be found only in a few Constitutions of the world. The Constitution guarantees dignity of man and also right to 'life' under Article 9, and if both are read together, the question will arise whether a person can be said to have dignity if his right to life is below bare necessity like without proper food, clothing, shelter, education, healthcare, clean atmosphere, and an unpolluted environment.⁸

In Sindh Institute of Urology & Transplantation vs. Nestlé Milkpak Limited (2004), the Court again held that access to clean and unpolluted water is essential to a life lived with dignity. It emphasized that water is a public resource that must be shared equitably among all citizens. The Court extended the meaning of "life" beyond mere existence to include the quality of life, stressing that without access to safe water, the right to life loses its substance. Similarly, in Naimatullah Khan v. Federation of Pakistan (2020), the Court explicitly held that the "right to life includes the provision of drinking water."

This constitutional grounding has increasingly shaped national and provincial efforts, reflected in a range of policies aimed at ensuring access to clean water.

In 2009, Pakistan's **National Drinking Water Policy** was approved. The policy recognized access to safe drinking water as a basic human right and affirmed the state's responsibility to provide adequate, affordable, equitable, and sustainable drinking water to all citizens. Key aspects of the policy included increasing access to safe drinking water by establishing and

https://lpr.adb.org/sites/default/files/resource/597/pakistan-shehla-zIa-vs.-wapda.pdf.pdf.

⁷ General Secretary v Director, Industries [1994] SCMR 2061 (SC Pak).

⁸ Shehla Zia and others v WAPDA [1994] PLD SC 693

⁹ Sindh Institute of Urology and Transplantation and others v Nestlé Milkpak Ltd and others [2005] CLC 424 (Kar) https://lpr.adb.org/sites/default/files/resource/599/pakistan-sindh-institute-of-urology-v-nestle-milkpak-2005-clc-424.pdf.pdf.

¹⁰ Naimatullah Khan Advocate and others v Federation of Pakistan and others [2020] SCMR 622 (SC Pak).

upgrading water supply systems in urban and rural areas, particularly focusing on underserved and disadvantaged communities. It emphasized the protection and conservation of water resources, enforcement of water quality standards, water treatment to meet national standards, and promoting community participation and empowerment.¹¹

Pakistan's National Water Policy ("NWP") was approved in 2018. This policy marked a significant milestone in Pakistan's water management history, recognizing water security as a critical national priority and guiding strategic investments and reforms to ensure sustainable water use for agriculture, domestic needs, the environment, and hydropower development. The policy was designed as a national framework guiding the provinces to develop their own plans for sustainable water resource management.¹²

The NWP also focused on providing access to clean and safe drinking water and sanitation facilities for both urban and rural populations. It emphasized financial sustainability of urban water systems, affordable rural water pricing, strict enforcement of water quality standards, protection of water sources from contamination, and innovative solutions like solar desalination in remote areas, all aligned with national policies and SDGs.

Provinces in Pakistan developed their own policies and laws to improve access to water, with many aligning their efforts with the NWP. For instance, Punjab has taken the lead in establishing a legal and institutional framework for water governance. The Punjab Water Act, **2019**, provided a legal framework for the management and regulation of water resources, with a focus on conservation, quality, and sustainability. It established regulatory bodies like the Punjab Water Services Regulatory Authority to oversee water supply and enforce standards for safe, wholesome water for domestic use. 13 **The Punjab Drinking Water Policy**, which was passed earlier in 2011, complemented this Act by specifically targeting the provision of clean drinking water and improving sanitation infrastructure across urban and rural areas.¹⁴ Additionally, the Punjab Saaf Pani Authority Act, 2024, reconstituted the authority responsible for delivering safe drinking water to the people of Punjab, emphasizing service delivery at accessible points.¹⁵ The Punjab Water and Sanitation Authority Act, 2025,

¹¹ Government of Pakistan, National Drinking Water Policy 2009.

¹² Government of Pakistan, National Water Policy 2018 (Ministry of Water Resources 2018) https://lpr.adb.org/resource/national-water-policy-2018-pakistan.

¹³ The Punjab Water Act 2019 (Act XXI of 2019) http://punjablaws.gov.pk/laws/2743.html

¹⁴ Government of Punjab, Punjab Drinking Water Policy (Government of Punjab 2011) https://hudphed.punjab.gov.pk/system/files/1-Punjab%20Drinking%20Water%20Policy%202011.pdf

¹⁵ The Punjab Saaf Pani Authority Act 2024 (Act IX of 2024)

https://punjablaws.punjab.gov.pk/uploads/articles/punjab-saaf-pani-authority-bill-2024-pdf.pdf.

further supported the operation and maintenance of water supply and sanitation systems to enhance public health outcomes. ¹⁶ These laws and policies together addressed the sustainable provision, regulation, and monitoring of water quality and sanitation services, reflecting the province's commitment to realizing access to water as a fundamental human right.

Sindh's **Drinking Water Supply Policy**, introduced in 2017, focused primarily on improving public health by ensuring universal access to safe, potable drinking water that is free from contamination, available on premises, affordable, and adequate for all urban and rural populations. Its objectives included establishing an enabling legal framework for safe drinking water management, protecting water resources with community involvement, developing district-level plans for equitable water access, and expanding coverage to meet SDGs.¹⁷ The broader **Sindh Water Policy**, **2023**, took a more integrated approach to sustainable water management across all sources (surface water, groundwater, wastewater) and sub-sectors (domestic, agriculture, industry, commercial, environment).¹⁸ Together, these policies complemented one another, with the Drinking Water Policy focusing on health and service delivery aspects of safe water access, while the Water Policy provided a holistic resource management framework to ensure water security, ecological integrity, and socio-economic development for Sindh's population.

Khyber Pakhtunkhwa Drinking Water Policy, 2015, envisioned improving the quality of life by ensuring universal access to sufficient, safe, and affordable potable water for all residents of the province. It focused on improving water services through better laws, increased coverage, protecting water resources, encouraging community involvement, and raising awareness. The policy viewed access to drinking water as a basic human right and stressed fair, efficient, and sustainable water use. ¹⁹ The Khyber Pakhtunkhwa Water Act, 2020, complemented this policy by legally defining obligations and duties for water service providers. It mandated the provision of safe water supplies primarily for domestic use and enforced regulatory oversight to ensure water quality and equitable access. ²⁰ Together, these instruments provided Khyber Pakhtunkhwa with a structured, legally backed approach to

¹⁶ The Punjab Water and Sanitation Authority Act 2025 (Act VII of 2025) http://punjablaws.gov.pk/laws/2905.html

¹⁷ Government of Sindh, Drinking Water Supply Policy (2017) https://faolex.fao.org/docs/pdf/pak220640.pdf.

¹⁸ Government of Sindh, Sindh Water Policy (2023)

https://irrigation.sindh.gov.pk/files/PagesContent/SindhWaterPolicy/SWP.pdf.

¹⁹ Government of Khyber Pakhtunkhwa, Khyber Pakhtunkhwa Drinking Water Policy (2015) https://faolex.fao.org/docs/pdf/pak225004.pdf.

²⁰ The Khyber Pakhtunkhwa Water Act, 2020 (Khyber Pakhtunkhwa Act No. XXV of 2020) https://kpcode.kp.gov.pk/uploads/The_Khyber_Pakhtunkhwa_Water_Act_2020_Act_No_XXV_of_2020.pdf.

ensuring access to clean and safe drinking water, framing it as a fundamental human right while focusing on sustainability, governance reforms, community involvement, and equitable service provision.

Balochistan developed a comprehensive water management policy known as the **Balochistan** Integrated Water Resources Management ("IWRM") Policy, 2024. This policy provided a strategic framework for sustainable water resource management in the province, addressing challenges such as water scarcity, groundwater depletion, climate change impacts, and equitable access. It aligned with Pakistan's NWP and emphasized inclusive, gender-sensitive governance, community involvement, environmental protection, and long-term water security.²¹

Challenges in Access to Water in Pakistan

Pakistan ranks among the top ten countries worldwide with the lowest access to clean water near homes. According to a report, approximately 16 million people lack access to clean and safe water²², and only 39% of the population has access to clean water.²³

Access to basic sanitation services remains inadequate, with at least 68% of the population lacking sufficient services.²⁴ Millions suffer from waterborne diseases and other health problems, and 23% of people lack handwashing facilities with soap and water.²⁵

Climate change significantly impacts access to water. Reduced rainfall decreases the availability of fresh water, while heavy rainfall leads to floods, which mix sewage with clean water, contaminating it with bacteria, viruses, and harmful chemicals. Accelerated glacier melting in northern Pakistan, caused by global warming, contributes to flooding. Overall, climate change is reducing the quantity, quality, and accessibility of clean water by intensifying droughts and floods.

The ongoing dispute over the Indus Water Treaty ("IWT") also poses a potential risk for future water shortages. For example, in Sindh, the Indus River is the primary water source. Water is

²¹ Government of Balochistan, Balochistan Integrated Water Resources Management Policy (2024) https://floodbased.org/wp-content/uploads/2024/08/Balochistan-Integrated-Water-Resources-Management-Policy-T.N-Final-Draft-for-Cabinate.pdf.

²² WaterAid Pakistan, 'Facts and Statistics' (WaterAid Pakistan) https://www.wateraid.org/pk/facts-and-statistics.

²³ "Only 39 pc of population has safe water access in Pakistan" Dawn (15 December 2024) https://www.dawn.com/news/1878741.

²⁴ Ibid.

²⁵ WaterAid Pakistan, 'Facts and Statistics'.

distributed through canals from the Sukkur, Kotri, and Guddu barrages for agriculture and daily use. While these barrages are crucial for irrigation, the same water also serves local populations for drinking and sanitation. However, pollution from agricultural runoff, industrial waste, and the effects of climate change pose major challenges in accessing clean and safe water. Many communities in Sindh face severe health issues due to poor sanitation infrastructure and contaminated water.²⁶

In Tharparkar, around 95% of the population relies on groundwater as their main drinking water source. However, clean water access is severely limited, especially in rural and desert areas, largely due to poor governance and weak enforcement of water rights protection. Many villages lack piped water infrastructure, making access to safe water difficult. Women and girls typically walk 4 to 5 kilometers daily, spending 3 to 4 hours fetching water from wells.²⁷ This task adversely affects their education, safety, and health.

Local residents report that the mining projects have also negatively impacted groundwater availability, with wells and pumps drying up nearby. Toxic substances released from mining, including heavy metals like arsenic, mercury, and lead, as well as acid mine drainage, have contaminated groundwater.²⁸

Decreasing groundwater not only affects domestic use but also reduces water availability for subsistence farming and livestock, contributing to food insecurity and poverty.

Despite government-installed reverse osmosis ("RO") plants in some areas, poor maintenance and lack of oversight have rendered many of these plants nonfunctional over time.²⁹ Rainwater remains the major water source for drinking, farming, and livestock in these villages due to the scarcity of groundwater.

Major cities in the also country lack access to safe drinking water. Both surface and groundwater sources have been contaminated by untreated sewage, industrial waste, and poor sanitation, posing serious health risks to citizens. Studies show that in many urban centers, over half of the water supply fails to meet safety standards, with contamination from harmful

²⁶ Government of Sindh, Sindh Water Policy (2023).

²⁷ Jhaman Das Hirani, 'Challenges and Solutions in WASH: A Study of Tharparkar Desert in Pakistan' (Pakistan Social Sciences Review, December 2019) 3(2) 881 https://pssr.org.pk/issues/v3/2/challenges-andsolutions-in-wash-a-study-of-tharparkar-desert-in-pakistan.pdf

²⁸ 'Coal mining takes toll on Thar's groundwater hydrology' The News International (27 October 2022) https://www.thenews.com.pk/print/1003890-coal-mining-takes-toll-on-thar-s-groundwater-hydrology. ²⁹ '555 out of 834 govt RO plants in Thar are dysfunctional' The Express Tribune (21 December 2023) https://tribune.com.pk/story/2450694/555-out-of-834-govt-ro-plants-in-thar-are-dysfunctional.

substances such as bacteria, arsenic, and fluoride. This unsafe water contributes significantly to illnesses and waterborne diseases, disproportionately affecting vulnerable groups like children. Despite some regional improvements, the overall quality of drinking water in urban areas remains a pressing public health concern.³⁰

For instance, in Lahore, access to clean drinking water has become a major challenge. Many filtration plants across the city are poorly maintained, covered in algae, with broken taps and often installed based on political interests rather than need. As a result, residents rely on these unreliable sources or expensive bottled water, risking exposure to unsafe water and related illnesses.³¹

These challenges underscore the need for comprehensive policy action that prioritizes water quality, consistent maintenance, and equitable access for all citizens.

Policy Recommendations

- Strengthen Enforcement and Accountability: Although water policies exist at national and provincial levels, implementation remains weak due to poor oversight and enforcement. Enhance monitoring and enforcement mechanisms of existing water quality and sanitation standards at federal and provincial levels to ensure compliance and timely corrective actions. Establish robust regulatory bodies with transparent reporting and public participation. This includes enforcing water pricing, metering, and pollution control to improve resource management and reduce contamination.
- Focus on Climate Resilience and Pollution Control: Develop adaptive management plans to address climate change impacts such as altered rainfall patterns, floods, and glacier melt affecting water availability and quality. Strengthen pollution controls to mitigate agricultural runoff, industrial waste, and toxic contamination that threaten water safety, with integrated approaches for water source protection at local and provincial levels.
- Enhance Community Engagement and Equity: Foster inclusive community participation in water governance to ensure equitable access and culturally appropriate services, explicitly targeting marginalized and vulnerable populations. Promote gender-

31 Muhammad Ilyas, 'No Clean Chit for Lahore's Filtration Plants' The Express Tribune (16 July 2025) https://tribune.com.pk/story/2556088/no-clean-chit-for-lahores-filtration-plants-1.

³⁰ Nazam Maqbool, 'Pakistan's Urban Water Challenges and Prospects' (Pakistan Institute of Development Economics 2024) https://file.pide.org.pk/pdfpideresearch/kb-115-pakistans-urban-water-challenges-and-prospects.pdf.

- sensitive policies that reduce the burden on women and girls and empower communities through education and capacity building.
- Installing Community-Managed Reverse Osmosis Plants: Install energy-efficient and durable reverse osmosis plants in areas severely affected by water contamination, especially where industrial pollution and heavy metals are prevalent. Ensure these plants are designed for easy maintenance and incorporate local community involvement in their operation and upkeep. Provide training to local operators to handle routine maintenance, monitor water quality, and quickly address technical issues.

Action Matrix Options for Pakistan						
Strengthen Enforcement and Accountability	Enhance regulatory oversight by updating water laws and creating independent watchdog bodies. Mandate transparent reporting and citizen feedback mechanisms.	Develop federal and provincial regulatory frameworks with monitoring tools. Enforce metering, pollution controls, and water pricing. Implement public dashboards to track enforcement.	 Ministry of Water Resources Provincial Water and Sanitation Agencies Environment al Protection Agencies ("EPAs") 	6 -12 months for regulatory reforms; 12-18 months for enforcement mechanisms and transparency tools		
Focus on Climate Resilience and Pollution Control	Adopt climate- resilient water management strategies and strengthen regulations on waste discharge and agricultural runoff. Integrate disaster preparedness with water safety planning.	Develop climate adaptation plans; update pollution control standards; deploy early warning systems for floods and contamination events. Enforce effluent treatment requirements for industries.	 Ministry of Climate Change Ministry of Planning Development & Special Initiatives Provincial Disaster Management Authorities ("PDMAs") Provincial Irrigation Departments 	6-12 months for adaptive planning; 12-24 months for implementation of pollution control measures		
Enhance Community Engagement and Equity	Institutionalize community involvement in water governance. Ensure marginalized communities are consulted in policy design and implementation.	Establish community water user groups; introduce training and awareness programs; promote gender-responsive budgeting and services.	 Local Governments NGOs and Civil Society Ministry of Human Rights Provincial Social Welfare Departments 	3-6 months for community mobilization; 12 months for capacity building and program roll- out		
Installing Community- Managed Reverse Osmosis Plants	Target high- contamination areas through local surveys. Design energy-efficient and	Procure and install RO plants with community ownership model. Conduct technical training programs for	• Provincial Public Health Engineering Departments	6 months for site selection and planning; 12-18 months for		

durable plants. Train community members in operations and maintenance.	local operators. Develop mobile-based monitoring tools for water quality.	 Local Governments Ministry of Science and Technology Community- Based Organizations 	installation and training
		("CBOs")	