

**IN THE SUPREME COURT OF PAKISTAN**  
(Appellate Jurisdiction)

**PRESENT:**

Mr. Justice Syed Mansoor Ali Shah  
Mr. Justice Aqeel Ahmed Abbasi

**Civil Petitions No.2918-L and 3039-L of 2015**

*Syed Ali Hussain, etc.*  
(in CP.2918-L of 2015)

*Afsar Khan (decd) through L.Rs. etc.*  
(in CP.3939-L of 2015)

***... Petitioners***

**Versus**

*Senior Member/Member (Revenue) Board of Revenue Punjab, Lahore etc*  
(in CP.2918-L of 2015)

*Board of Revenue Punjab, Lahore through Secretary (Revenue) etc*  
(in CP.3939-L of 2015)

***... Respondents***

For the Petitioners: Mr. Muhammad Umer Riaz, ASC  
(in both cases)  
(via video link from Lahore)

For the Respondents: Mr. Mohsin Mumtaz, ASC  
a/w Mr. Asad Ullah Khan, Secretary Housing  
and Urban Development, Punjab.  
Mr. Ghufraan Ahmad, M.D. WASA, Lahore.  
Mr. Zeeshan Bilal, Director (P&D) WASA,  
Lahore.  
Mr. Muhammad Usman Asif, ASC  
(via video link from Lahore)

Date of Hearing: 31.01.2025

**ORDER**

**Background**

Land measuring 6,937 kanals was acquired by the Water and Sanitation Authority ("WASA"), an agency of the Lahore Development Authority ("LDA"), in three *mauzajat* of Tehsil and District Lahore – *Babu Sabu*, *Jhuggian Nagra*, and *Niaz Beg* – in 1991-1992 through two awards dated 24.12.1991 and 23.02.1992. The land was acquired for the public purpose of setting up a Wastewater Treatment Plant ("WWTP") to treat the contaminated wastewater flowing into the River Ravi.

### Funding Challenges and Revised Plans

2. Initially, the WWTP was to be funded by the World Bank, but negotiations did not materialize, and nearly three decades have passed without any progress on the ground. The Managing Director, WASA, and the Secretary, Housing and Urban Development, Punjab, submit that fresh loan negotiations are now being pursued with the French Development Agency ("AFD"). In this regard, it is submitted by MD, WASA, that Form PC-1<sup>1</sup> is being put up for approval before the Provincial Development Working Party ("PDWP"), Central Development Working Party ("CDWP"), and the Executive Committee of the National Economic Council ("ECNEC") – key bodies responsible for economic planning, infrastructure development, and public sector investments. It is further submitted that the ECNEC approval is expected by late August 2025, and, if granted, loan negotiations with AFD will commence in February 2026.

### Environmental Significance of WWTP

3. It is important to underline that a WWTP is crucial for preventing contaminated water from entering River Ravi, ensuring environmental sustainability and public health. If left untreated, contaminated water introduces harmful pollutants, degrading water quality, harming aquatic life, and disrupting ecosystems. These effects, in turn, threaten biodiversity and essential river services, including drinking water, irrigation, and recreation. The WWTP will safeguard the river's ecological integrity and protect the livelihoods of communities dependent on it.

### The Importance of River Ravi

4. The River Ravi, which flows through Lahore, Pakistan, holds immense ecological, cultural, and historical significance. As one of the five major rivers of the Punjab region, it has been a lifeline for agriculture, providing water for irrigation and supporting millions of livelihoods. However, urbanization, industrial pollution, and untreated wastewater have severely degraded its health, endangering both ecosystems and human communities. Protecting and restoring the River Ravi is not only essential for environmental sustainability but also for preserving Lahore's heritage, ensuring water security, and improving the overall quality of life for its residents.

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<sup>1</sup> Planning Commission Form-1, used for the planning, approval, and execution of development projects.

### Pakistan's Climate Vulnerability and WWTP's Role

5. According to the Global Climate Risk Index, Pakistan is the 8<sup>th</sup> most vulnerable country in the world. Its geographical location, socio-economic challenges, and heavy reliance on climate-sensitive sectors like agriculture and water make it highly susceptible to climate-related risks as it ranks 23<sup>rd</sup> out of 194 countries as per the 2024 Inform Risk Index.<sup>2</sup> Climate change exacerbates water pollution by increasing the frequency and intensity of rainfall, which can overwhelm wastewater treatment systems, leading to the discharge of untreated or partially treated wastewater into rivers. Investing in climate-resilient wastewater treatment infrastructure ensures that water flowing into the river is clean and safe, thereby protecting aquatic life, preserving biodiversity, and maintaining ecological balance. This aligns with several Sustainable Development Goals<sup>3</sup> ("SDGs"), including SDG 6 (Clean Water and Sanitation), which aims to improve water quality and reduce pollution; SDG 13 (Climate Action), which calls for taking urgent measures to combat climate change; and SDG 14 (Life Below Water), which focuses on conserving marine and freshwater ecosystems.

### Delay and the Need for Alternative Funding

6. For three decades, the construction of a much-needed WWTP has been delayed due to WASA's inability to secure international financing, highlighting the limitations of relying solely on international financing. Given the urgency of ensuring River Ravi's sustainability, securing clean water access, and addressing the WWTP's links to climate adaptation, its timely construction is tied to the fundamental rights to life and dignity under Articles 9 and 14 of the Constitution of the Islamic Republic of Pakistan, 1973 ("Constitution"). In light of this grave and pressing background, it is imperative that WASA urgently explores alternative financing mechanisms and cost-effective, homegrown waste water treatment solutions in public interest.

### Judicial Guidance without Encroachment on Policy-Making

7. While it is well established that policy-making falls within the domain of the executive, this Court, in exercising its constitutional

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<sup>2</sup> European Commission, Inform Risk Index, 2024.

<sup>3</sup> The Sustainable Development Goals (SDGs) are a set of 17 global goals adopted by all United Nations (UN) member states, including Pakistan, as part of the 2030 Agenda for Sustainable Development in 2015. Pakistan adopted the SDGs as its national development agenda in 2016.

duty to safeguard fundamental rights under Article 9 of the Constitution, has over the years developed a substantial knowledge base regarding environmental challenges. Therefore, without encroaching upon the policy-making prerogative of the executive, this Court deems it appropriate to suggest certain options that the executive authorities may consider while formulating its response to the challenge in hand, that is, the delay of three decades in setting up the WWTP. These recommendations, while not binding, are intended to assist the executive in discharging its obligations towards environmental protection and sustainable development.

Recommendations:

Islamic Climate Finance: A Sustainable Alternative

8. We find it important to underline that access to climate finance is essential for ensuring climate adaptation and resilience, particularly in vulnerable regions like Pakistan, where environmental degradation directly affects fundamental rights such as life, health and dignity. In this context, climate finance emerges as a viable, self-sustaining alternative that not only aligns with environmental responsibility and financial sustainability but also upholds fundamental rights under the Constitution. Islamic finance principles, particularly those emphasizing risk-sharing and ethical investment, offer a non-debt-based approach to financing critical infrastructure. WASA may consider leveraging Waqf (Endowments), Sukuk (Islamic bonds), and Public-private Partnerships rooted in Islamic finance. For instance, a Green Sukuk—a Shariah-compliant financial instrument—can be issued to raise funds specifically for the water treatment plant, attracting investors who seek both financial returns and environmental impact. Islamic finance has been a game changer in climate action, offering ethical and sustainable financial solutions for the Global South. Indonesia successfully launched a Green Sukuk in 2018, raising \$1.25 billion to finance renewable energy and climate-resilient projects, demonstrating that Islamic financial instruments can effectively mobilize resources for environmental sustainability. Malaysia's Sustainable and Responsible Investment ("SRI") Sukuk, has funded water conservation, waste management, and solar energy initiatives. By integrating Islamic finance into climate strategies, particularly in Muslim-majority and climate-vulnerable countries like

Pakistan, there is significant potential to mobilize resources and enhance the impact of global climate initiatives.

Wastewater Treatment Technologies: Exploring Cost-Effective Options and Homegrown Solutions

9. WASA may explore a range of WWTP technologies, including cost-effective and homegrown technological solutions to urgently provide sustainable water management for the people of Pakistan. The spectrum of technologies available can be broadly categorized into low-cost, intermediate, and advanced solutions. Low-cost, homegrown solutions, include: (a) Septic Tanks; which provides basic on-site sewage treatment by separating solids from liquids and enabling anaerobic digestion, (b) Constructed Wetlands; these use natural wetland processes to filter and treat wastewater, (c) Anaerobic Ponds & Lagoons; these rely on anaerobic processes for treatment, making them suitable for agricultural or low-resource settings, and (d) Sand and Gravel Filters; these offer a simple yet effective way to remove impurities through layered filtration. Intermediate or conventional technologies provide more efficient treatment. These include: (a) Activated Sludge Process; this uses aeration and biological floc to treat sewage, (b) Trickling Filters; this involves microorganisms breaking down contaminants as wastewater flows over filtration media, (c) Upflow Anaerobic Sludge Blanket Reactor; it facilitates anaerobic wastewater treatment by allowing the wastewater through a blanket of granular sludge, and (d) Membrane Bioreactors; these combine membrane filtration with biological treatment, resulting in high-quality effluent. Advanced wastewater treatment technologies offer cutting-edge solutions for complex contamination issues. These include: (a) Reverse Osmosis and Nanofiltration; these provide high-level purification, making them suitable for desalination and water treatment, (b) Advanced Oxidation Processes; these use hydroxyl radicals to break down pollutants, (c) Electrocoagulation; this removes contaminants like heavy metals through electrical currents, (d) Zero Liquid Discharge Systems; these ensure complete wastewater purification and recycling, eliminating discharge entirely, and (e) AI and IoT-based Smart Treatment; these technologies enhance real-time monitoring and efficiency in wastewater management.<sup>4</sup>

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<sup>4</sup> Wastewater Research, The U.S. Environmental Protection Agency (EPA): The EPA provides comprehensive resources on wastewater research and treatment technologies < <https://www.epa.gov/water-research/wastewater-research>>; Wastewater Treatment Water Use, The U.S. Geological Survey (USGS): The USGS offers detailed explanations of wastewater treatment processes and related water use topics < <https://www.usgs.gov/special-topics/water-science-school/science/wastewater-treatment-water-use>> and Water Treatment Technologies, Federal Remediation Technologies Roundtable (FRTR): The FRTR presents profiles of commonly used contaminant

10. Additionally, the restriction on using 6,937 kanals of acquired land exclusively for the WWTP may also be reconsidered. Given that the project footprint does not require acres of land, WASA may repurpose the remaining land for other climate adaptation initiatives such as afforestation, renewable energy projects (solar or wind farms), or sustainable agriculture to combat soil degradation and improve food security. By diversifying adaptation projects in the same area, WASA not only maximizes land use but also strengthens resilience against climate change. This aligns with the Pakistan's National Adaptation Plan (2023-2030) which prioritizes adaptation efforts and identifies several key sectors, e.g., (i) *Water Security* (ii) *Agriculture and Food Security* (iii) *Disaster Risk Reduction* (iv) *Health* (v) *Urban Planning and Infrastructure* (vi) *Ecosystems and Biodiversity* and (vii) *Energy*.<sup>5</sup> Our institutions must promote national adaptation strategies through indigenous financial tools and home grown solutions that align with sustainability, community well-being, and long-term economic stability.

11. Learned counsel for the respondent land owners, vehemently agitates, that the land was acquired from private landowners with the promise to set up WWTP that has not materialized over three decades. WASA's inaction over these years represents a serious failure in upholding its commitment to both public welfare and private rights. He submits that if there is no success reported in September 2025, the question would be open before this Court as to whether land acquired three decades ago for a public purpose, which has not been fulfilled, can result in the land being restored to its original owners as per Rule 14 of the Punjab Land Acquisition Rules, 1983.

12. Considering the importance of WWTP and its bearing on fundamental rights of the people, WASA may want to reconsider its financial and technological options while pursuing its negotiations with AFD. Let the PDWP through its Chair, Chairman Planning and Development Punjab, Civil Secretariat Lahore, CDWP through its Chair, Deputy Chairman Planning Commission, Pakistan Secretariat, Constitution Avenue Islamabad and ECNEC, Cabinet Block, Cabinet Secretariat, Red Zone Islamabad conclude the matter latest by end of August 2025. ECNEC is directed to submit its final report to the Court

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treatment technologies, including their principles, applicability, and limitations <  
<https://www.ftrr.gov/matrix/Water-Treatment-Technologies/>>.

<sup>5</sup> National Adaptation Plan (2023) <  
[https://unfccc.int/sites/default/files/resource/National\\_Adaptation\\_Plan\\_Pakistan.pdf](https://unfccc.int/sites/default/files/resource/National_Adaptation_Plan_Pakistan.pdf)>

before the next date of hearing. A copy of this Order be dispatched to PDWP, CDWP and ECNEC for information and further action.

13. Let this case now come up in the last week of September 2025 to assess whether the relevant authorities have successfully concluded the matter after exploring all possible financial and technological alternatives.

Judge

Judge

**Islamabad**

31.01.2025

**Approved for Reporting**

*Umer A. Ranjha, LC*