



# Environmental & Climate Action:

## Circular Water Economy

As water scarcity intensifies and climate change accelerates, the circular water economy is transitioning from aspiration to necessity. Magnetic Water Treatment plays a vital role in this transformation by enhancing wastewater treatment efficiency, enabling greater water reuse, and reducing the environmental footprint of water management across all sectors.



### Measurable Environmental Benefits

- **Chemical reduction:** 30-70% decrease in treatment chemicals
- **Energy savings:** 8-20% reduction in water system energy consumption
- **Carbon footprint:** 15-25% lower greenhouse gas emissions
- **Water recovery:** > 100% improvement in reuse system efficiency
- **Ecosystem protection:** Reduced chemical discharge to receiving waters



#### Asia: Swachh Bharat

Enhances performance of wastewater treatment and desalination plants by improving settling rates and reducing membrane fouling. Increases biogas recovery from sludge by 15-25% and supports **Swachh Bharat Mission (Urban & Grameen)** waste-to-energy objectives.



#### Africa: Affordable Reclamation

Provides affordable wastewater reclamation tools for resource-limited communities, enabling agricultural and industrial reuse. Reduces the need for imported treatment chemicals by 40-60%, strengthening local economic resilience.



#### Europe: Circular Economy Leadership

Supports EU Circular Economy Action Plan and Zero Pollution Ambition by enabling chemical-free water treatment and enhanced reuse systems. Reduces treatment chemical consumption by 30-70%, aligning with REACH regulations and minimizing hazardous substance discharge to waterways. Improves wastewater treatment plant efficiency by 15-25%, helping member states meet Urban Wastewater Treatment Directive requirements with lower operational costs. Enhances water reuse for industrial and agricultural applications, supporting the EU Water Reuse Regulation and drought resilience strategies across Mediterranean regions.



#### North America: Decarbonization

Strengthens **EPA Water Reuse Action Plan** and **DOE Industrial Decarbonization** strategies through chemical-free treatment. Helps industries and municipalities gain **carbon credits** by lowering chemical and energy use by 12-18%.



#### South America: Climate Mitigation

Improves throughput in municipal wastewater systems; aids **climate mitigation commitments** under the Paris Agreement. Supports ecosystem restoration by reducing pollutant loads in rivers and coastal waters.