

The “Shaffaf Pani” intermittent Slow-Sand Bio- Filtration (iSSF) System can Provide 3000 Liters of Filtered Water/day for Schools, Shelters, Mosques, Hostels, Hospitals, Clinics, in Urban and Rural areas, remote Communities



Picture: Pilot Project running in outskirts of Islamabad

Water Sources could be Raw Tap Water, Well, Pond, Lake, and River Water

Removes Biological Hazards and Suspended Particle Turbidity

- **Removes 98.5% Bacteria, & 70 to 99% Viruses**
- **Removes 100% of Protozoa**
- **Removes 100% Helminths (worms, larvae)**
- **Removes 95% Iron**

The System is designed as a series of tanks, the Reservoir tank receives the raw water input, followed by the Filtration tank, and the Storage tank. Based on the principle of intermittently operated Slow - Sand Filtration technology. The Filtration tank contains columns of sand and graded crushed rock on which natural beneficial microorganisms are living. Water from the reservoir tank flows in the top most layer of the Filtration tank, it spends a period of time in contact with the sand, where predation in the biolayer takes place, allowing the microorganisms in the biolayer to engulf harmful bacteria, viruses, protozoa, larvae etc. As water percolates down through sand & graded gravel it is cleansed through predation, adsorption, natural death, and mechanical trapping, to remove pathogens and turbidity. The filtered water flows to the Storage tank for use. Source water is added intermittently to the system through an automated mechanical valve, giving the system rest in between. Modelled on the filtration processes that naturally occur in sand and gravel aquifers. Our Shaffaf Pani BSF Systems are adapted from the BSF system designed in the early 1990s at the University of Calgary, Canada. **These systems are designed for larger needs of clean safe drinking water....**