Algae Elimination & Sewage Pond Revival

Pond, Phool Kalan, Punjab, India

Location

Phool Kalan, Ropar district, Punjab

Lake Size

1 Acre

Unit Type

NanoCloud N-50 Nanobubble Generator

Project Objective

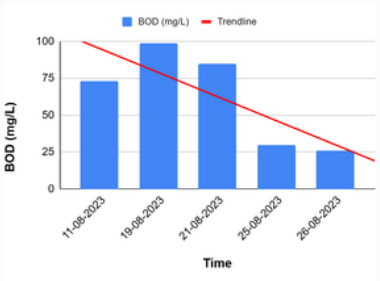
To rejuvenate a polluted rural sewage pond using nanobubble technology under the Punjab Government's initiative for eco-friendly and chemical-free restoration of village water bodies.

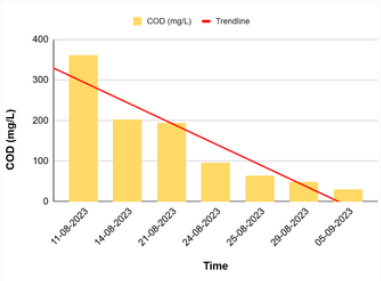
Background & Challenges

The Phool Kalan community pond serves as the primary collection basin for untreated household wastewater. Continuous discharge of sewage led to severe organic pollution, resulting in extremely low Dissolved Oxygen (DO), high BOD and COD levels, strong foul odors from anaerobic decomposition, dense algae overgrowth, heavy mosquito breeding, and poor sanitation and deteriorating living conditions. The pond had become environmentally degraded and a public health concern for the village.

Nanobubble Intervention

In January 2025, Nanokriti deployed the NanoCloud N-50 Nanobubble Generator. The system introduced high-density oxygen nanobubbles into the pond, which increased dissolved oxygen uniformly, oxidized hydrogen sulfide and ammonia, eliminating foul odors, enhanced aerobic microbial degradation of organic waste, reduced BOD and COD levels, suppressed algae growth, and controlled mosquito breeding.
The process was entirely chemical-free and environmentally sustainable.





Results Achieved

- Algae overgrowth eliminated within 30 days
- Visibly cleaner and odor-free water
- Significant increase in Dissolved Oxygen levels
- Substantial reduction in BOD and COD (see trend graphs)
- Foul odors completely removed
- Pond restored to support aquatic life

Community Testimonial

"After the machine was installed, the algae and foul odor were removed. Earlier, we could not even see the water because it was covered with a thick layer of algae. Now the algae is gone, and we can see clean, clear water without any odor."

— Village Residents, Phool Kalan

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