Revival of Litran Village Pond with Nanobubble Technology

Litran Community Pond, Punjab

Location
Jalandhar, Punjab

Lake Size
1 Acre

Unit Type
NanoCloud N-50 Nanobubble Generator

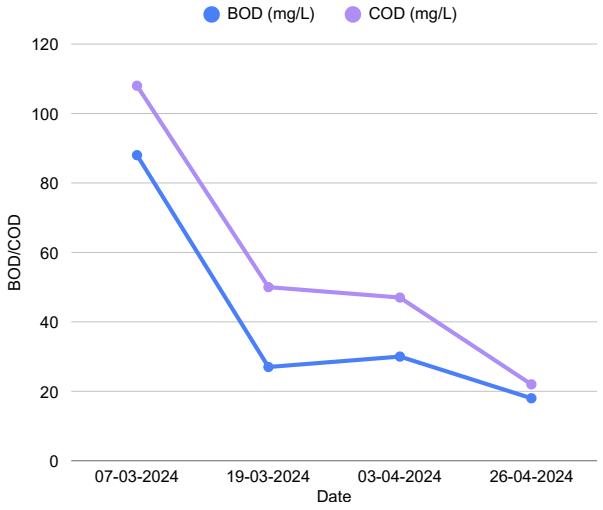
Project Objective
To restore the ecological health of Litran village Pond using a sustainable, chemical-free, and community-safe approach that improves water quality, eliminates odors, and supports long-term environmental balance.

Challenges:

- Critically low Dissolved Oxygen (DO) levels
- High BOD & COD indicating severe organic contamination
- Strong foul odor from hydrogen sulfide and ammonia buildup
- Algae overgrowth, leading to poor water clarity
- Mosquito breeding and increased waterborne diseases

Results Achieved

- Dissolved Oxygen (DO) levels significantly increased
- BOD and COD levels reduced consistently
- Foul odors eliminated, improving surrounding livability
- Algae growth suppressed, improving water clarity
- Reduction in mosquito breeding, lowering disease risk
- Aquatic life restoration observed
- Improved discharge quality, enhancing downstream impact
- Cleaner and healthier environment for villagers



Litran, a small village in Punjab, was struggling with a sewage pond full of organic waste, foul smell, algae blooms, and almost **zero oxygen levels.** The pond had become a source of diseases, mosquitoes, and poor sanitation for the residents.
To address this, the Punjab Government approved a pilot using Nanokriti's NanoCloud N-50 oxygen nanobubble generator in March 2024. The system produces ultra-fine nanobubbles that stay in water longer, increasing dissolved oxygen, oxidizing foul gases (H_2S, ammonia), and reducing organic pollution—all without chemicals.

Key Results (March–April 2024)

- BOD reduced from 123 mg/l → 24 mg/l
- COD reduced from 191 mg/l → 24 mg/l
- DO stabilized at 7–8 mg/l (healthy for aquatic life)
- Coliform & TSS reduced, improving clarity & sanitation

Within two months of installation, the pond environment visibly changed. The foul smell that used to dominate the area disappeared. Algal growth and mosquito breeding reduced drastically, which also lowered health risks for the villagers. The pond water became clearer, and for the first time in years, aquatic life was able to survive.
The surrounding environment improved too—cleaner water discharge meant less contamination downstream, directly benefitting sanitation and the village ecosystem.

Conclusion

The Litran village pond case shows how nanobubble technology can provide a sustainable and chemical-free solution for restoring polluted water bodies. By increasing dissolved oxygen, reducing organic contamination, and improving overall water quality, the Nanocloud N-50 generator not only revived a dying pond but also gave the local community a healthier environment.
This successful pilot has now opened the door for scaling nanobubble technology across many other ponds in Punjab, helping villages transition to cleaner water and improved living conditions.

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