



# ECOSYSTEM RESTORATION

**MoEF&CC's Environmental Information System, Resource  
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# WHAT IS ECOSYSTEM RESTORATION?



Ecosystem restoration means assisting in the recovery of ecosystems that have been degraded or destroyed, as well as conserving the ecosystems that are still intact. Healthier ecosystems, with richer biodiversity, yield greater benefits such as more fertile soils, bigger yields of timber and fish, and larger stores of greenhouse gases.



Restoring ecosystems large and small protects and improves the livelihoods of people who depend on them.

# BENEFITS

**It conserves native species**

**Restoration of the original habitat and species**

**Beneficial to wildlife, retention of naturally occurring food sources**

**It prevents the potential of habitat loss**

**It helps to maintain healthy soils to sustain life on Earth**

**It protects Indigenous cultures**

**Human health is dependent on ecosystem health**

**It helps mitigate climate change and threatened or endangered species**

**It also helps to regulate disease and reduce the risk of natural disasters.**

# DID YOU KNOW?



Nitrogen from fertilizers used in industrial agriculture not only pollutes air and water, it also helps drive climate change.

Many fish eat insects, so humanity can restore rivers by letting more insect-friendly plants grow on their banks.



At least 600 glaciers have vanished in recent decades, affecting water supplies for billions of people living downstream.

# CASE STUDIES



**BEFORE**

**AFTER**

## **Kyalasanahalli Lake, Karnataka**

4 lakh cubic meters of mud that were removed is used to make 5 islands of 110 diameters each. These islands now serve as nesting areas for birds, with a huge tree planted in the middle for nests, as well as fruit-bearing and flower saplings around. Two canals of the stormwater drain were diverted 1.8 km away to restore the lake with water and life. Two forests were created on the lake using the Japanese Miyawaki methods. And the surrounding lake area was protected with plants and turfed with grass to save it from soil erosion.

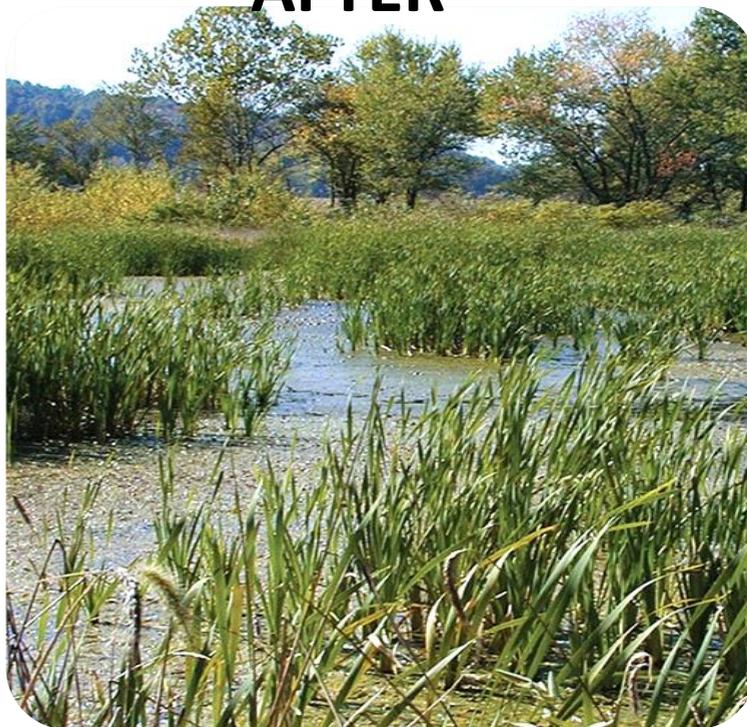
*Source: <https://www.thebetterindia.com/172511/bengaluru-lake-clean-hero-environment-india/>*

**Wake the lake – A campaign that has revived 16 lakes of Bengaluru**

**BEFORE**



**AFTER**



## **Wills Creek Lake in Coshocton County, Ohio**

The project area consisted of a 62-acre subcatchment area of the lake. For a number of years, the site contributed to a serious decline in aquatic habitat potential in the receiving waters of the lake. The restoration included more than 10 acres of coal spoil and treatment of AMD (Acid Mine Drainage) from a deep mine. The treatment plan included a combination of land reclamation, water diversion and aerobic wetlands treatment. In its second year of operation, results included increased pH from 2.9 at the inflow to 8.3 at the outflow, with a corresponding decrease in metals concentration.

*Source: <https://www.burgessniple.com/our-work/wills-creek-ecological-restoration/>*



*To cherish what remains of the Earth and to foster its renewal is our only legitimate hope of survival.*

*- Wendell Berry*