

Thoughtscape

Ghostbusters in the Mangroves: Unsung Heroes of Maharashtra's Forest Department

Mangrove forests may seem calm and serene from a distance, but within their twisted roots and murky waters lie daily battles fought against invisible threats—illegal encroachments, plastic pollution, habitat destruction, etc. At the heart of this ongoing fight is a dedicated group of real-life "Ghostbusters"—the Mangrove Cell, Forest Department of Maharashtra.

Guardians of the Green Coast

Maharashtra is home to one of the richest mangrove ecosystems in India, spanning over 31,500+ Ha. along its coastlines. These mangroves are not just vital ecological buffers; they are biodiversity hotspots, carbon sinks, and natural storm shields. Recognizing their critical importance, the Mangrove Cell, has emerged as a proactive and innovative force in conserving these fragile habitats. The designation of mangroves as Protected Forest under the Indian Forest Act, 1972 has provided legal muscle to the conservation efforts.

Battling the Invisible Foes

Just as ghostbusters track down elusive spirits, Forest Officials must contend with threats that are not always easy to see or stop. Illegal dumping of construction debris, silent encroachments, and the creeping spread of invasive species threaten mangrove health.

Forest guards, often working in difficult terrain and adverse weather, patrol these areas on foot and by boat. They respond swiftly to reports of tree felling or land grabbing and use satellite surveillance and mapping to detect changes in forest cover.

Technology Meets Tradition

In recent years, the Department has incorporated cutting-edge tools into its conservation toolkit. GIS mapping & MRSAC helps track mangrove growth and degradation and at the same time, forest staff rely on traditional knowledge and on-ground vigilance to detect early signs of damage. The Mangrove Suraksha App acts as a digital ally in the fight against threats—streamlining public complaints and ensuring swift, transparent action by the Forest Department.



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Community Partnerships: Expanding the Force

Recognizing that mangrove protection cannot be achieved alone, the Department has worked extensively with local communities under a scheme 'Mangrove Conservation and Livelihood Generation'. Through aquaculture & ecotourism activities and awareness drives, we have transformed villagers into frontline defenders of mangroves. The goal is to create a culture of protection. When people understand the value of mangroves, they become our eyes and ears on the ground. Today, 3,663 local guardians from 167 villages stand as the frontline guardians of Maharashtra's mangroves—protecting their coastal ecosystems while also earning a sustainable livelihood through eco-friendly initiatives.

The Exorcism of the Plastic

Plastic waste is the most insidious threat to mangrove ecosystems. It clings to roots, blocks tidal flows, and traps marine creatures. These "plastic ghosts" —wrapped around pneumatophores (aerial roots), floating in backwaters and hidden in mudflats. Their removal is no simple task; it requires manpower, planning and constant vigilance. The Forest Department, with the support of volunteers and NGOs, organizes regular mangrove clean-up drives.

All efforts are a states that '**mangroves are not forgotten**'.



In 2024-25, over 15,700+ volunteers joined hands with the Forest Department, bravely navigating the muddy mangroves to remove 116 tonnes of plastic waste—a massive blow to the plastic phantoms haunting our coastal forests.

Symbol of Hope: Maharashtra Declares First State Mangrove

In a historic move that reinforces its leadership in mangrove conservation, Maharashtra became the first state in India to declare an official State Mangrove species—*Sonneratia alba*, also known as Sweet-scented mangrove apple. Known for its striking white flowers and ability to thrive in saline, waterlogged soils, *Sonneratia alba* plays a crucial ecological role in stabilizing coastlines and supporting marine life. The declaration is not merely symbolic—it sends a strong message about the importance of preserving native mangrove biodiversity.

These 'Ghostbusters' may not carry proton packs, but their weapons—vigilance, dedication, and science—are no less powerful. Their mission is not to eliminate ghosts, but to ensure that future generations inherit a coast where the only spirits are those of thriving biodiversity and resilient ecosystems.



-Hrishikesh Rane
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