



MUKTI

Environment Profile

Sustainability in Sundarbans Delta

MUKTI for Environment

Established in 2003 in the Sundarbans Delta, a climate change hotspot, [Mukti](#) is a non-profit socio-economic development organization founded by [Mr. Sankar Halder](#). Committed to humanitarian response, Mukti adheres to Core Humanitarian Standards, supporting at-risk populations in West Bengal, India. Recognized as a leader in sustainable environmental development, Mukti's HEALER-AID programs exemplify quality and accountability, earning Special Consultative Status with the [United Nations Economic & Social Council \(UNECOSOC\)](#) and numerous [awards](#).

In the past four years, the Sundarbans has endured six major cyclones, like [Amphan](#), [Bulbul](#), Fani, [Yaas](#), [Remal](#) and [Dana](#) resulting in severe environmental and social impacts. These storms caused widespread flooding, soil erosion, and the destruction of crops, leading to increased saltwater intrusion and compromised agricultural land. This has threatened local food security and livelihoods while harming biodiversity. The damage to infrastructure has heightened community vulnerability, underscoring the urgent need for [sustainable practices](#) and resilient strategies in the face of climate change.

MUKTI Environment and Sustainability Approach

Women-Led Rural and Coastal Plantations:

Mukti empowers local women by establishing fruit and flower plantations that utilize abundant land for economic crops, enhancing livelihoods and promoting environmental stewardship.

Mangrove Reforestation:

Mukti engages in women-led [mangrove plantation](#) efforts in the Sundarbans, which absorb significant [carbon dioxide](#) and serve as natural barriers against erosion. Mukti provides knowledge and consultation to enhance local mangrove management.

Sustainable Housing and Infrastructure:

Mukti designed [eco-friendly housing](#) solutions that withstand coastal cyclones and flooding, using local materials to promote a circular economy and ensure safe living conditions.

Natural and Organic Agriculture:

To mitigate the negative impacts of chemical based farming on human health and soil fertility, Mukti promotes [organic and climate-resilient agriculture](#), essential for food and livelihood security in the flood-prone Sundarbans.

Holistic Climate Focus:

All of Mukti's [HEALER-AID](#) programs - spanning [Health](#), [Education](#), [Agriculture](#), [Livelihoods](#), [Environment](#), [Rights Awareness](#), [Integrated Development](#) and [Disaster Risk Reduction](#) - are centered on climate resilience and sustainability, integrating environmental initiatives across all areas of development.

Biodiversity and Coastal Ecology:

Mukti helps protect local biodiversity by promoting sustainable fishing practices and conserving wildlife, maintaining ecological balance in the Sundarbans.

Rainwater Harvesting:

To address agricultural challenges due to saline water, Mukti advocates for rainwater harvesting through pond rejuvenation and restoration, improving water access and quality for rural communities.

Renewable Energy Promotion:

Mukti supports [renewable energy](#) and alternate energy initiatives to reduce reliance on traditional fuel sources, fostering a healthier ecosystem and enhancing community resilience.

MUKTI Environment Experience

Mukti has integrated climate and environmental considerations into all of its projects, and several key initiatives exemplify our commitment to environmental sustainability and climate resilience. Below are a few of the most significant projects that illustrate Mukti's pioneering work in the Sundarbans.

Mukti's Green Defence in Sundarbans: Mukti's [Green Defence](#) initiative in the Sundarbans replaces traditional concrete embankments with four layers of mangrove plantations, offering a natural solution to protect coastlines from erosion and flooding. This project has successfully restored over 1500 hectares of mangrove forests, spanning over 100 km of river embankments, while boosting biodiversity and enhancing carbon sequestration. Additionally, the initiative creates job opportunities for local women, making it a cost-effective, participatory, and eco-friendly solution that strengthens community resilience and supports circular economy.

Mukti's Climate-Resilient Housing Project: Mukti's [Climate-Resilient Housing Project](#) has constructed 105 homes in the Sundarbans, designed by professionals using local materials to withstand cyclones with wind speeds up to 200 km/h and flooding up to 15 feet. Each home is equipped with rainwater harvesting systems and solar panels, promoting sustainability and energy efficiency. This initiative not only provides safe shelter but also supports [livelihoods](#), empowering communities to rebuild and adapt to the challenges posed by climate change.

Mukti's Sustainable Agriculture Movement has engaged over **12,000 farmers** since 2009 in organic, climate-resilient farming practices, enhancing soil fertility and water retention. With **300 farmers achieving organic certification**, the initiative promotes eco-friendly methods and reduces dependency on chemicals. Mukti also supports [kitchen gardening](#) for improved food security. An initiative called Mukti Fresh compliment the above program by ensuring price assurance to the farmers for their produce and availability to the end customers at honest and reasonable price. [Recognized by FICCI](#) as India's top sustainable agriculture organization in 2021, the movement boosts farmer incomes and contributes to environmental sustainability.

Mukti's Pond Rejuvenation Program has restored over **1000 ponds** in the Sundarbans, improving freshwater availability for irrigation, drinking, and domestic use. The initiative enhances agricultural productivity, reduces ground water use and waterborne diseases, and promotes climate resilience in the region. Local communities, especially women, are actively involved in the restoration and management of these water sources. The program also integrates **rainwater harvesting** and **water filtration** systems to further ensure sustainable water access.

Mukti Green Gram Project: The Mukti Green Gram Project promotes women-led [horticulture nurseries](#) to foster green livelihoods and has planted over 100 km of village roads with fruit bearing trees and flowers, transforming areas like Nagendrapur and [Kankandighi](#) GP of Sundarbans into vibrant Green Villages. The initiative incorporates a [food-for-work](#) model, enhancing food security and building climate resilience in the region. Mukti's integrated approach supports economic independence and drives environmental sustainability across the Sundarbans. This created alternate livelihood for the local communities and in turn improved community participation and accountability in protecting the Mangrove reforestation initiative.

Mukti's Disaster Preparedness and Rehabilitation: Mukti is dedicated to enhancing [disaster preparedness](#) and supporting rehabilitation in the Sundarbans, a region frequently impacted by natural disasters. In response to events like Cyclones [Aila](#), [Bulbul](#), [Amphan](#), [Yaas](#), [Remal](#), and [Dana](#), Mukti has implemented various initiatives with ever-improving effectiveness to help communities better withstand and recover from these crises. The organization conducts regular [disaster preparedness](#) training for local residents and women community leaders, reaching over 500000 people to build resilience and improve [disaster response](#) capabilities.

Mukti Environment Capacity

Mukti possesses deep expertise in NetZero goals and [sustainability](#), with dedicated research teams advancing cutting-edge ESG (Environmental, Social, and Governance) initiatives. Our specialized knowledge and experience in [mangrove conservation](#) and for green [embankment protection](#) using mangroves sets us apart. Overall, Mukti has a committed workforce of over 2000 full-time and part-time associates, all working toward impactful social and environmental change.

Contact:

Sankar Halder, Founder and President Mukti
22 Canal Side Road, Garia, Kolkata-84, West Bengal, India.
Email: info@muktiweb.org Phone: +91 6290-589-64, Website: www.muktiweb.org