VIKALP
URJA PROMOTOR

Mangrove Conservation & Restoration through Non-Toxic Foliar Spray

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Mangroves - Roots of Hope
Nature Shield & Carbon Heroes

Mangroves - conservation Importance

Carbon sequestration: Mangroves store 3-5 times more carbon than Terrestrial forest

Biodiversity and Lighthouse: support 3000 + species benefiting 120 million peoples

Costal protection: Reduce wave height by up to 66% protecting 15 million people annually

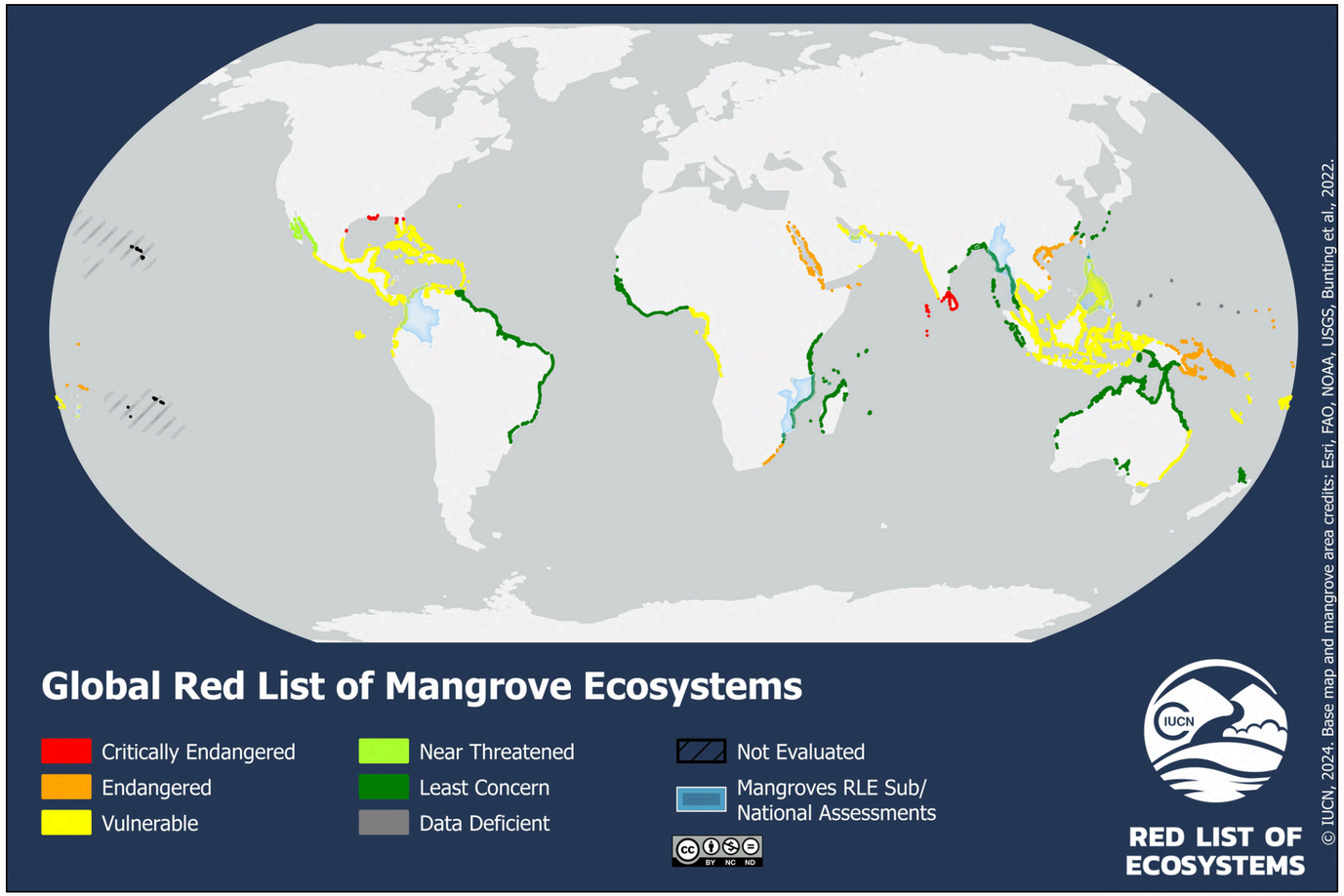

IUCN ALRT: Over half of the world’s mangrove are at risk of collapse

The Priceless Values of Mangroves

1.8 billion tons of carbon stored (17% of the total current carbon stored in mangroves), currently valued at a minimum of $13 billion at market prices in voluntary carbon markets and representing a cost to society equal to $336 billion based on the social cost of carbon.

protection for 2.1 million lives exposed to coastal flooding (14.5% of current lives exposed) and $36 billion worth in protection to properties (35.7% of current property values protected)

17 million days of fishing effort per year (14% of current fishing effort is supported by mangroves).



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Mangroves at crossroads:

One - Third (33%) Under Siege From Climate Change And Human Activities

THREATS TO MANGROVE EOCSYSTEM:

01

Climate Change

Climate change amplifies existing threats to mangroves and introduces new challenges, driven by rising temperatures, sea levels, and extreme weather events that affect their survival.

02

Temperature

Changes in temperature threaten the growth and health of mangroves, making them vulnerable to climate change. increased variability in weather patterns disrupts their ability to adapt.

03

Sea Level Rise

Rising sea levels pose a significant threat to mangroves by increasing inundation and eroding coastal habitats. This process is accelerated by melting polar ice and the thermal expansion of oceans.

04

Water Quality

Turbidity, nutrient levels, and pollution critically impact mangrove ecosystem Runoff from agriculture and industrial activities can degrade water quality, harming mangrove growth and wildlife.

THREATS TO MANGROVE EOCSYSTEM:

05

Salinity Tolerance

While mangroves thrive in saline environments, they have limited tolerance for extreme salinity. Excessive freshwater diversion and rising sea levels further challenge their survival.

06

Tidal Influence

Tides play a crucial role in shaping mangrove ecosystems by influencing nutrient exchange, sediment deposition, and habitat structure essential for their health and resilience.

07

Human Activities

Anthropogenic activities such as coastal development, deforestation, aquaculture, and pollution pose serious threats to mangrove ecosystems. Clearing mangroves for urbanization or agriculture reduces habitat availability and disrupts ecosystem processes, while pollution from industrial effluents, oil spills, and plastic debris can degrade water quality and harm mangrove vegetation and wildlife.

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THE FUSION OF AYURVEDA AND SYNTHETIC BIO NANO TECHNOLOGY FOR A SUSTAINABLE FUTURE

ENHANCES OXYGEN LIBERATION, PHOTOSYNTHESIS, CARBON FIXING, AND ENVIRONMENTAL RESILIENCE.

THE MODERN MARVEL OF ADVANCED BIOLOGY,

VIKALP URJA

REPRESENTS

The extraordinary amalgamation of India’s rich heritage of Ayurveda and cutting-edge Synthetic Bio Nano Technology. This unique collaboration has created remarkable solutions for our times.

Essential for Climate Change

VIKALP addresses the urgent challenges posed by climate change.

Enhanced Oxygen Liberation

- Features a special mixture of proprietary materials that significantly enhances oxygen liberation.
- Accelerates the photosynthesis process, increasing efficiency.

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Multiplying Carbon Fixing Capacity

- Increases carbon-fixing properties multiple times beyond existing levels.
- Results in superior absorption of various gases.

Boosting Metabolism

Enhances both primary and secondary metabolism, contributing to a healthier ecosystem.

Higher Rate of Oxygen Release

Provides a higher rate of oxygen liberation compared to typical processes.

Results of Vikalp Urja On Mangroves

Increases Turgor Pressure
Promotes cell hydration and stability, leading to healthier plant structures.

Enhances Carbon Fixation
Boosts mangroves' ability to absorb carbon dioxide, aiding in climate change mitigation.

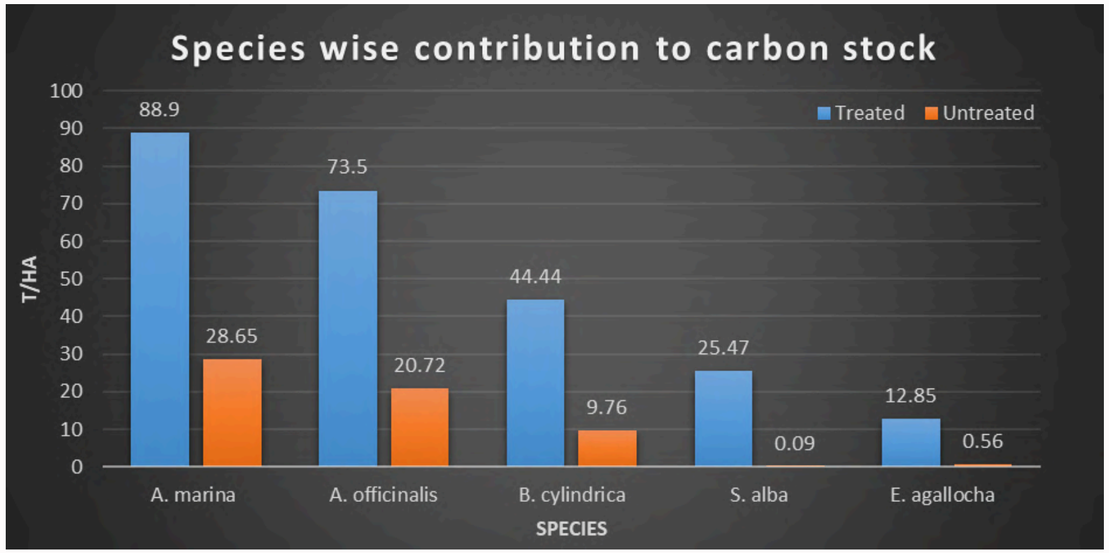
Increases Turgidity
Improves the firmness and health of mangrove vegetation.

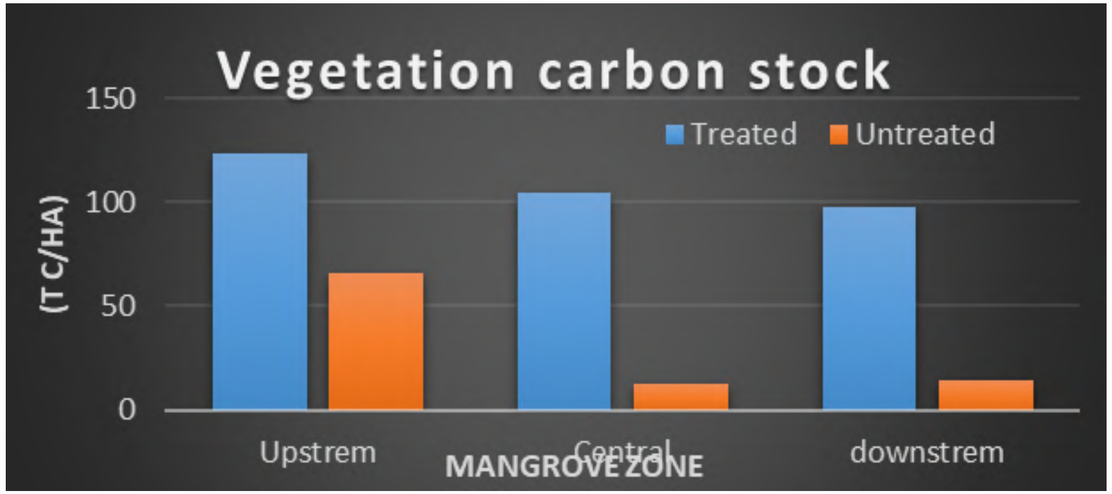
Rapid Growth
Accelerates growth rates, enhancing overall ecosystem resilience.

Increased Sugar Content
Elevates sugar production, contributing to better energy storage and overall plant health.

Reduced Watering Requirement
Lowers water needs, making mangroves more efficient in water usage.

Enhanced Environmental Tolerance
Improves resilience to environmental stressors like salinity and drought.





Results of Vikalp Urja On Mangroves

Surfactant Enhancement

The formulation includes surfactants that enhance leaf wetting and improve penetration of the compound and other components.

Growth Increase

Boosts growth by 80% to 100% compared to untreated plants.

Increases Intercellular Carbon Dioxide Levels

Raises CO_2 levels sufficiently to inhibit photorespiration under conditions like high light intensity, heat, water stress, and nutrient stress.

Increased Sugar Content

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Reduced Watering Requirement

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Enhanced Environmental Tolerance

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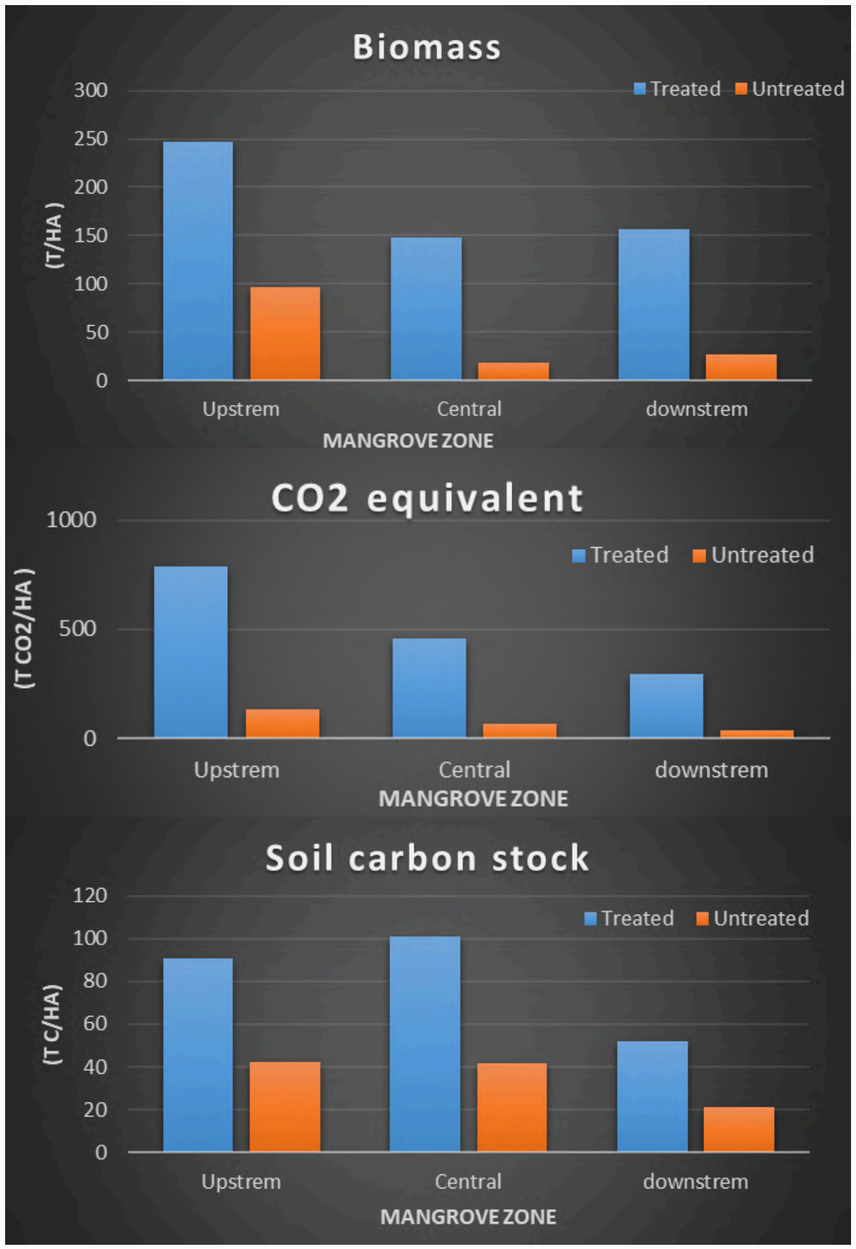

VIKALP Urja: A Catalyst for Restoration

01

Accelerated Recovery

VIKALP Urja promotes rapid growth of mangroves, increasing their biomass and capacity to provide habitat for marine life. Reports indicate potential growth increases of 80% to100% compared to untreated plants.

02

Water Efficiency

Reduces the water requirements for mangroves, making them more resilient to drought conditions and environmental stress.

03

Boosting Biodiversity

Promotes healthier ecosystems that support diverse flora and fauna, essential for ecological balance. With healthier mangroves, the diversity of aquatic species is enhanced, providing vital breeding and nursery grounds for economically important fish and shellfish.

VIKALP Urja: A Catalyst for Restoration

04

Improved Carbon Fixation

By enhancing carbon sequestration, VIKALP Urja helps mitigate climate change effects and restore the carbon balance in the ecosystem.

05

Restoration of Coastal Integrity

VIKALP Urja strengthens the root systems of mangroves, improving erosion control and protecting coastlines against the impacts of climate change and extreme weather events.

06

Sustainable Fisheries

Healthy mangrove ecosystems supported by VIKALP Urja ensure the sustainability of fisheries, bolstering the livelihoods of local communities and contributing to food security.

07

Community Empowerment

The implementation of VIKALP Urja can create sustainable livelihoods for local communities, enhancing their capacity to protect and conserve these vital ecosystems.

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Innovative Solutions for Rapid Restoration

Embracing innovations like VIKALP Urja can lead to the rapid restoration and enhancement of the MANGROVE ecosystem.

CALL TO ACTION: A COLLECTIVE RESPONSIBILITY

Our mangroves are in peril. A vital ecosystem, teeters on the brink of collapse. We must act now to save these irreplaceable habitats and the countless lives they sustain.

Benefits of Mangroves Conservation

Mangrove Carbon Sequestration Potential

High Carbon Sequestration Rate

01

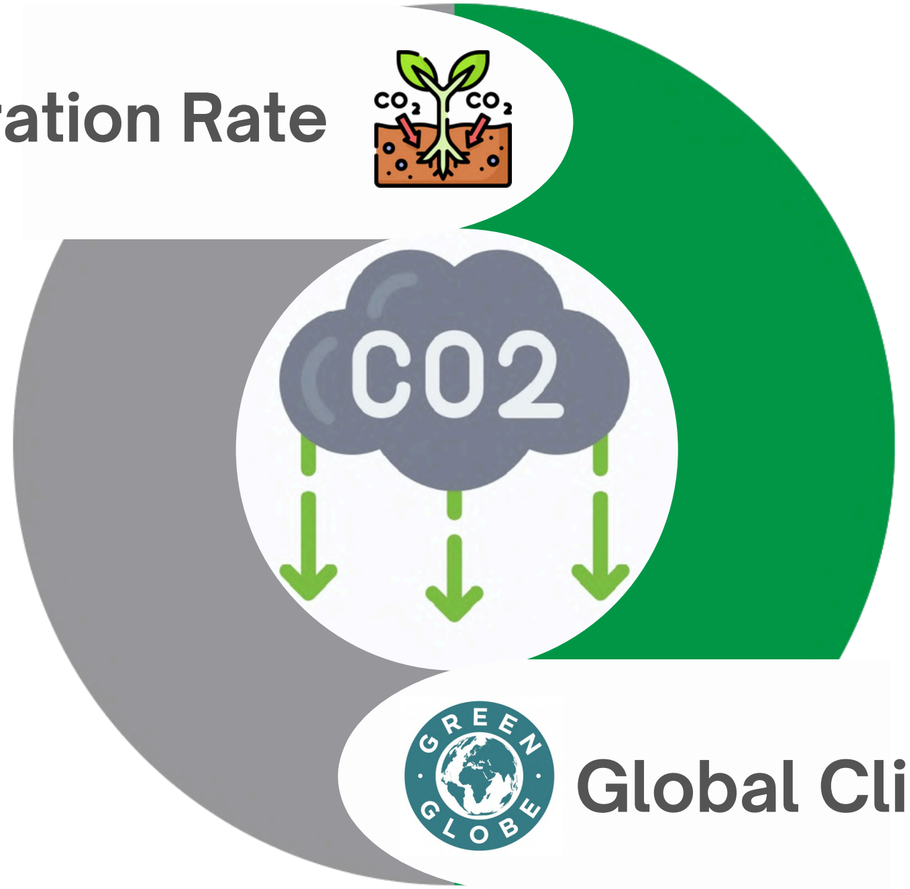
Sequestration Capacity

Mangroves in the Maharashtra can sequester approximately 4.71 to 6.54 metric tons of carbon per hectare per year.

02

Significance

This high carbon absorption rate is critical in combating climate change, positioning mangroves as essential carbon sinks.



Global Climate Action

01

Paris Agreement Pledge

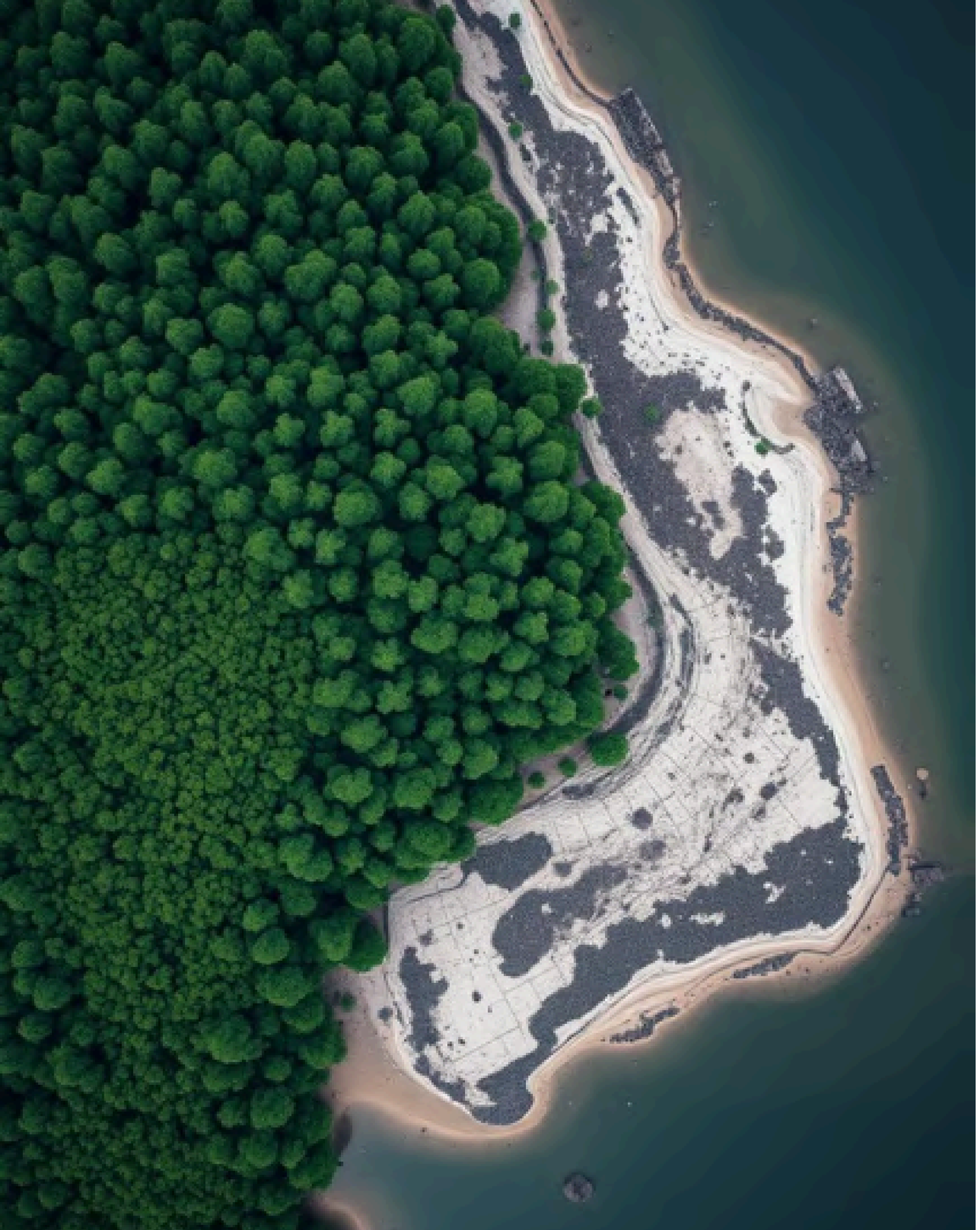
At the 2015 Paris Climate Conference, India committed to expanding carbon sequestration efforts to contribute 3 billion metric tons of carbon sequestration by 2030.

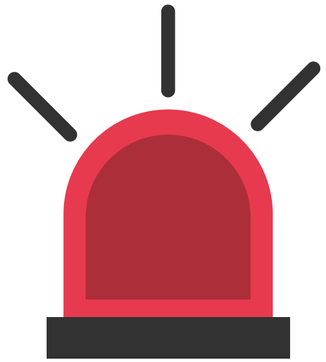
02

Mangroves as Key Players

Expanding and protecting mangrove ecosystems aligns with this goal, reinforcing India’s commitment to environmental resilience and sustainable development.

Investing in Mangrove Restoration: By prioritizing mangrove conservation and restoration, we can meet climate targets, stabilize coastal regions, and protect biodiversity





URGENCY FOR CONSERVATION

Ongoing and enhanced conservation efforts are essential for the sustainability of our vital mangrove ecosystems.

DECISIVE INTERVENTION NEEDED

Immediate action is required!

The situation is critical, and without decisive intervention, we face the potential collapse of this invaluable ecosystem.

INVESTING FOR THE FUTURE

By investing in the conservation of mangroves and adopting cutting-edge solutions like VIKALP Urja, we can:

Restore these vital ecosystems

Safeguard biodiversity

Ensure the well-being of the millions who depend on these resources.

OUR POLICY TO FIGHT CLIMATE CHANGE

01
Mitigating Climate Change
Developing solutions that address the root causes and effects of climate change.

02
Removing Greenhouse Gases
Implementing strategies to effectively remove greenhouse gases from the atmosphere.

03
Mitigating Carbon Emissions
Reducing carbon emissions through innovative practice sand technologies.

04
Converting Liabilities to Assets
Transforming global atmospheric liabilities into valuable assets through the right knowledge, practices, and technologies.

05
Sequestering Carbon in Soil
Enhancing methods to sequester more carbon into the soil, improving soil health and fertility.

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Join us...

In this critical journey. The future of our coastlines, wildlife, and communities depends on the actions we take today.

Thank You!!