

Heartyculture Biochar



Regenerating the Soils of India
Annual Impact Report 2025

“ Biochar to me is a revolution, it can bring about revolution in agriculture

— DAAJI



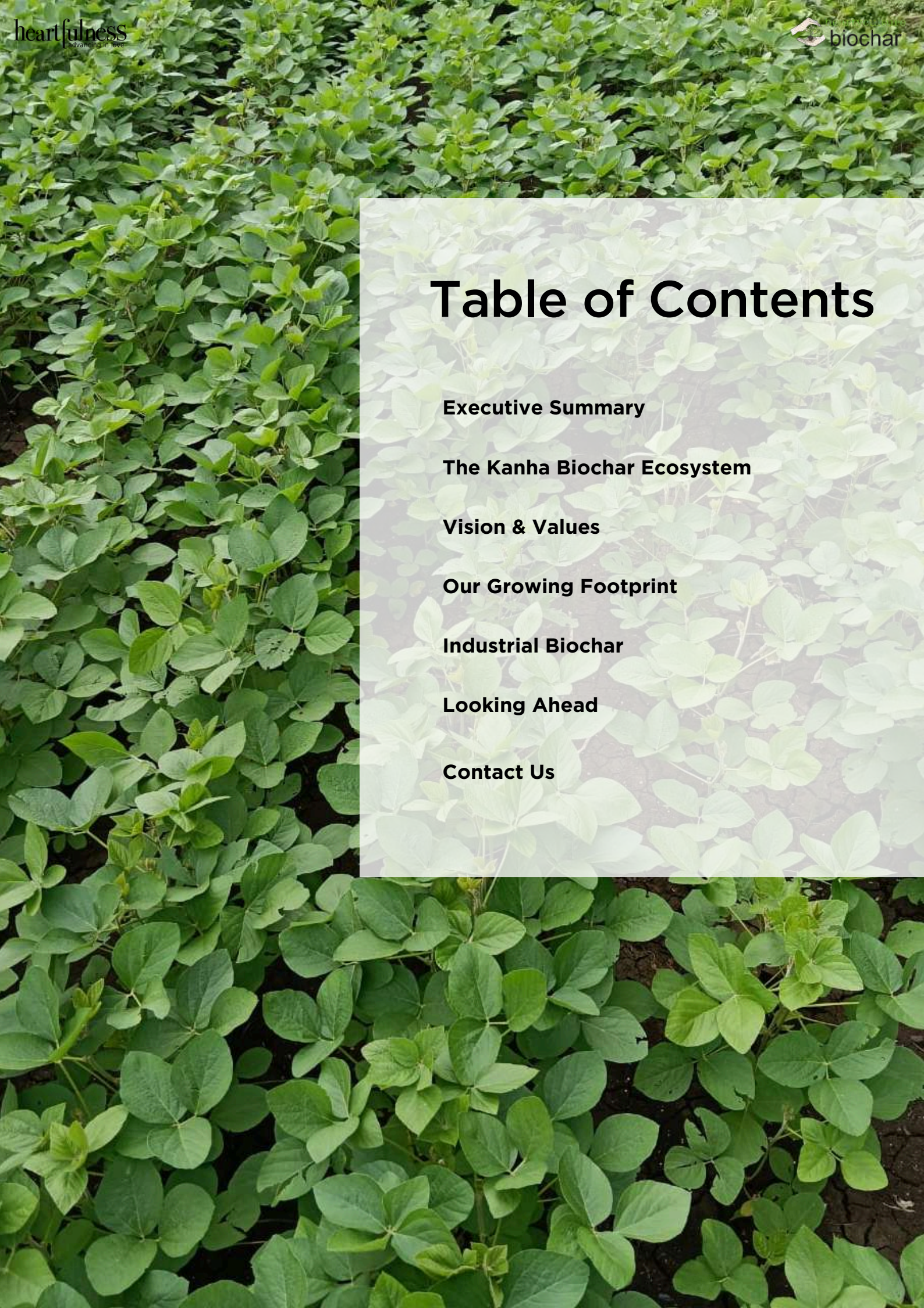


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Heartyculture Biochar is a climate-positive initiative rooted in the vision of regenerating soils, empowering rural communities, and drawing carbon back into the earth. Anchored in the values of **Heartfulness**, the initiative began at Kanha Shanti Vanam, where 1500 acres of barren land was transformed into a Green Oasis using locally produced biochar. What started as a soil improvement effort has grown into a nationwide model for sustainable agriculture and carbon removal.

Through climate-smart production, farmer-centric training, and a strong ecosystem of research, policy, and carbon markets, Heartyculture Biochar is building a new paradigm: One where carbon is a community asset, and every handful of soil tells a story of renewal.

Executive Summary

About Heartfulness:

- Heartfulness Institute is a global non-profit organization, associated with **United Nations Department of Global Communications** (earlier DPI), with a 79-year history, offering unique, simple, and holistic set of practices for self-development such as **Relaxation, Meditation, and Rejuvenation** which can be integrated into one's daily routine to help us find inner calm and stillness in our present day extremely fast-paced world.
- Globally Heartfulness meditation is offered **pro-bono**.
- Our presence spans over **160+ countries** with over **10 million practitioners, 16,000+ certified trainers, 280+ retreat centers** and **6000 Meditation spots worldwide**.



About Heartyculture Biochar:

- Heartyculture Biochar is an initiative of Heartfulness Institute, dedicated to offering **sustainable, circular solutions** to address soil degradation, waste biomass, and climate change. Built on the values of regenerative living, the initiative began at **Kanha Shanti Vanam**, the global headquarters of Heartfulness in Hyderabad.
- The project focuses on converting agricultural and green waste into **biochar**, a carbon-rich **soil amendment** that restores fertility, improves water retention, and sequesters carbon for centuries.
- Our approach integrates traditional knowledge, cutting-edge research, and community engagement to create impact at both local and global levels.
- Heartyculture Biochar also operates as a **Centre of Excellence** (COE) for capacity building, field trials, and training, with partnerships spanning state forest departments, research institutions, and climate-focused organisations.

From Barren to Bountiful

Once a barren 1,500-acre expanse with just 200 trees, Kanha Shanti Vanam has, in six years, been transformed into a thriving green haven of over 200,000 trees, revitalised farmlands, and a dramatically restored water table by over 900 feet, with biochar playing a pivotal role in this ecological revival.



First of it's kind Biochar Center of Excellence



The Heartfulness Biochar Center of Excellence (COE) was inaugurated with great pride at Kanha Shanti Vanam by Shri Nitin Gadkari, Hon'ble Minister of Road Transport and Highways. As India's first integrated facility of its kind, the COE marks a pivotal step toward building knowledge systems and scalable models in regenerative agriculture, carbon removal, and rural entrepreneurship.

The COE has quickly become a hub of continuous learning and collaboration. Whether it is field demonstrations, artisan training, research trials, or community engagement, the Biochar COE continues to serve as a dynamic, living lab — bridging traditional knowledge, modern science, and scalable impact.



“This initiative brings together farmers and entrepreneurs, creating economic opportunities and making agriculture more dependable in villages.”

- Shri Nitin Gadkari
Minister of Road Transport and
Highways, Govt. of India

“The Centre for Rural Entrepreneurship offers upskilling and income generation opportunities aligned with the Skill India vision.”

- Shri Nath Parameshwaran
Senior Director of Corporate Affairs
Paypal India



Kaushal Manthan 2025

Shri Jayant Chaudhary (Hon'ble Union Minister for Skill Development and Entrepreneurship); Inauguration of the First Rural Entrepreneurship Training at the Biochar COE

“One of the best natural center in the Globe and Prestige organisation for Telangana”

-Shri G. Kishan Reddy
(Hon'ble Union Minister of Coal and Mines) at the Biochar COE



“Very interesting and novel way of adopting charcoal to enhance organic production”

- Shri D. Sridhar Babu
Minister of IT of Telangana

PayPal Impact Day

Hands-on demonstrations for corporate volunteers driving sustainability awareness.





State Forest Department Trainings

“Forestry officials and guards from across India trained in biochar production and application.”



Forestry Team Training

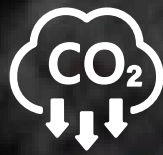
Skill-building sessions equipping field teams with practical knowledge for large-scale ecosystem restoration.

Maharashtra Farmer Outreach

Empowering local farmers with biochar knowledge to enhance soil health and boost climate resilience.



Why Biochar?



Scalable Carbon Sequestration

Permanently sequesters carbon for 1,000+ years, creating an immediate and lasting climate solution. Has the potential to remove 1 Gigaton of CO2 by 2050



Soil Regeneration

Improves water retention, scales microbial activity, revitalizes degraded soils naturally.



Economic Opportunity

Increases crop yields by 18-32%, improving income for farmers.



Environmental Health

Eliminates harmful open field burning of biomass, reducing respiratory illnesses and air pollution.



Circular Economy

Transforms agricultural waste into a valuable resource, improving resource efficiency.

Key Achievements 2024 - 2025

In just 20 months of operations, Heartyculture Biochar has achieved significant milestones:



PRODUCTION & INFRASTRUCTURE:

- Established **20** artisan biochar units across India
- Produced **1,540** tons of biochar
- Generated **3,300+** high-quality carbon credits

MARKET POSITION & CERTIFICATION:

- Registered as a **C-Sink Manager** with Carbon Standards International, Switzerland
- Achieved carbon trading partner status

FUTURE CAPACITY:

- Built network infrastructure capable of generating **2 million** carbon credits by 2030
- Initiated development of **industrial-scale** biochar projects scheduled for 2026

Vision and Values



OUR VISION

Scale Biochar's regenerative potential to combat climate change while transforming Agriculture, Afforestation and Livelihoods

OUR MISSION

Set up biochar units in villages of India to remove 1 million tons of CO2 by 2030 and promote a vibrant and circular rural economy

We are a regenerative, climate-conscious movement rooted in harmony with nature, working to revive ecosystems, uplift rural communities, and **foster a sustainable future through biochar.**



4,299 Tons of Crop Waste
Diverted



1,540 Tons of Biochar
Produced



3,524.307 Tons of CO₂
Sequestered



36 Artisans
Trained



1,540 Acres of Land
Enriched with Biochar



86 Kon-Tikis and Long-Tikis
in Operation

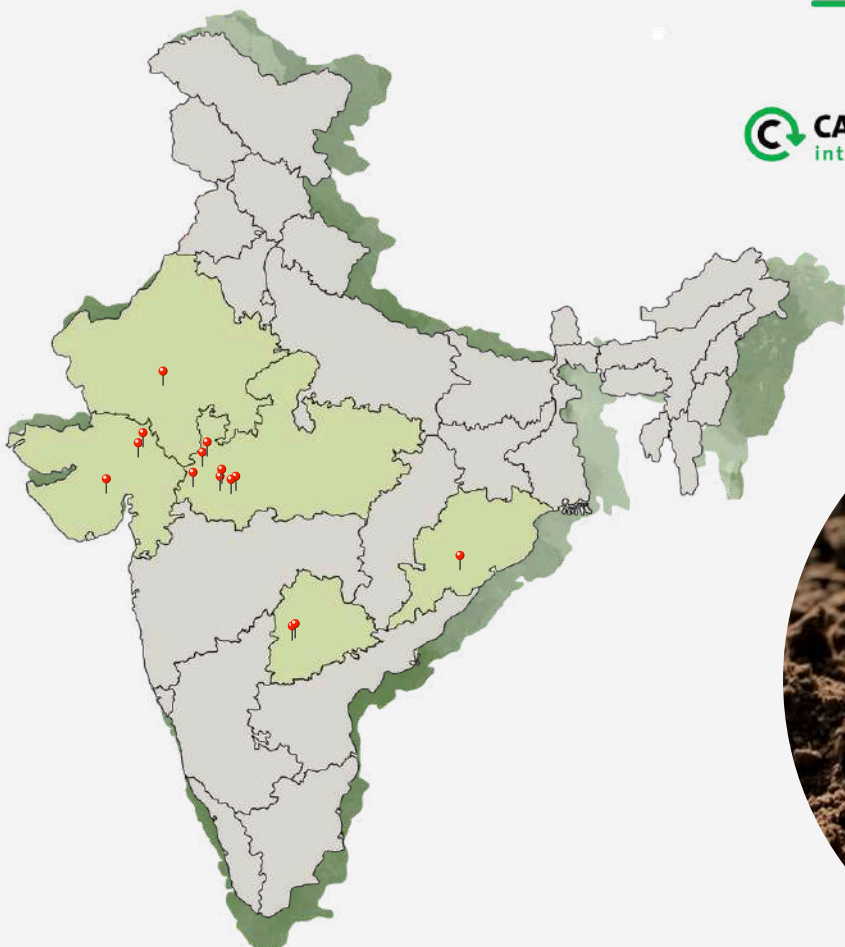
AN OVERVIEW

Our Growing Footprint

Heartyculture's success is built on a robust network of strategic partnerships spanning multiple states across India. Each partnership brings unique expertise, from community engagement and farmer outreach to carbon credit certification and market access, allowing us to scale our regenerative biochar model effectively while empowering local communities with sustainable livelihoods.

With access to 2.5 million farmers and partnerships spanning UNCCD, ICAR, 4P1000, and key ministries, Heartfulness Institute is well-placed to lead this transformative initiative.

Its proven methodologies and collaboration with FPOs, NGOs, and execution partners strengthen its commitment to sustainable development.

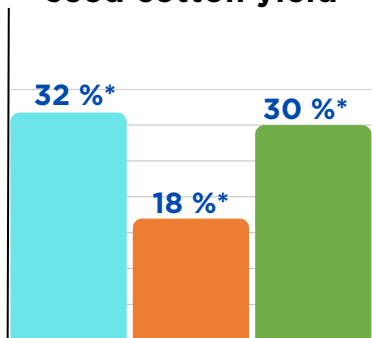


Scaling Biochar to the Fields

In partnership with the Indian Council of Agricultural Research (ICAR), Heartfulness Institute is conducting research on biochar's impact on crop yields and soil health to mainstream and scale the use of biochar in agriculture.

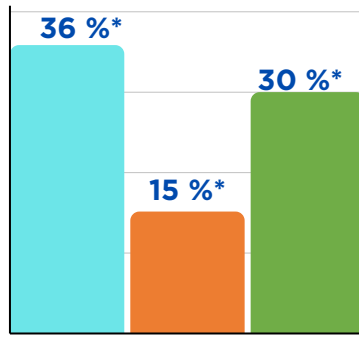


Upto 32% increase in seed cotton yield



● Madhya Pradesh

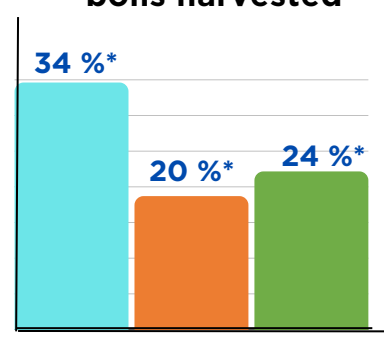
37% higher lint yield



● Sabarkantha

● Botad

Increased number of bolls harvested



* Statistically significant

17,000+ data points recorded

Farmers reported:

- 18-32% higher yields
- Greener leaves = higher N
- Ease in de-weeding
- Higher moisture retention
- Decreased pest incidence
- Higher flower count



Carbon Credits That Transform Communities

Our carbon credits are certified by Carbon Standards International (Switzerland), ensuring the highest standards of transparency and environmental integrity. However, our credits deliver impact far beyond carbon offsetting — they drive a transformative cycle of climate action and rural development.

Impact Per 100 Credits Purchased:

Every purchase of 100 biochar carbon credits from Heartyculture delivers measurable outcomes:

- 100 tons of CO₂e permanently sequestered in soil through biochar application
- 50 acres of degraded farmland restored at negligible cost to participating farmers
- 18–32% increase in annual crop yields and farmer incomes through improved soil health
- Up to 30% reduction in agricultural water consumption via enhanced soil water retention
- One rural entrepreneur trained and equipped, creating 4–8 sustainable jobs in underserved communities



A Dual Dividend: Environmental & Social Returns

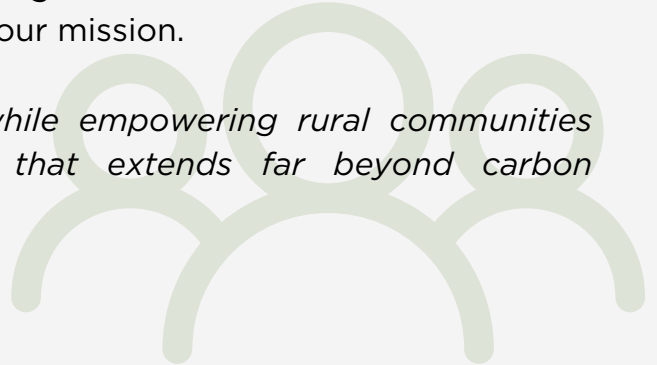
Each carbon credit purchase generates cascading benefits, from soil regeneration and enhanced agricultural productivity, to sustainable livelihoods and green job creation in rural India.

Partnership Opportunities for Scalable Impact

With **3,500 artisan biochar carbon credits** currently available and continuous production expanding our inventory, we invite organizations to align their ESG commitments with our mission.

Together, we can scale climate resilience while empowering rural communities across India, creating measurable impact that extends far beyond carbon accounting.

Annual Impact Report 2025



The Year in Highlights



Certified to Sink Carbon:

All production sites underwent rigorous third-party audits by a leading German certifier. We are now officially certified as a C-Sink Manager, a milestone that validates our capacity to generate high-integrity carbon credits.



A New Model Emerges:

This year marked the rollout of C-Sink Networks, a decentralised approach that takes lightweight long-tikis directly to farms. Unlike kon-tikis, long-tikis handle longer biomass, reducing prep time and enabling biochar production and application in the farmer's field.



Lantana for Regenerative Agriculture:

For the first time, **invasive** lantana was repurposed into biochar by Heartyculture in collaboration with the forest department in Shivgarh, Madhya Pradesh, turning an ecological threat into a soil-building solution.



Hearts and Soils:

Under the Heartfulness **Ekatm Abhiyan**, the world's largest rural yoga and meditation outreach, biochar awareness was integrated into programming across over 100,000 villages — combining environmental action with inner wellbeing.



Training highlights

This year's training sessions focused on equipping field teams with both foundational knowledge and practical skills essential for high-quality biochar production. Participants were trained in proper feedstock storage techniques, with emphasis on maintaining ideal moisture levels to ensure efficient pyrolysis.



A major highlight was hands-on learning with long-tiki kilns. Teams were taught best practices to minimise smoke, avoid incomplete pyrolysis, and produce uniform, high-carbon biochar. Sessions also included demonstrations on the use of digital MRV system, enabling transparent and traceable tracking from kiln to inoculation.



Safety remained a core priority. Trainees were oriented on fire safety protocols, including the importance of wearing protective gear and maintaining vigilance during all stages of production.

Turning Waste to Worth

Agricultural waste is transformed into carbon-rich biochar that restores soil and fights climate change.





Monitoring What Matters

The digital systems and field checks that verify every tonne of carbon removed and land improved.





From Kilns to Crops

Tracing the path of biochar from rural kilns to the hands of farmers applying it to their fields.



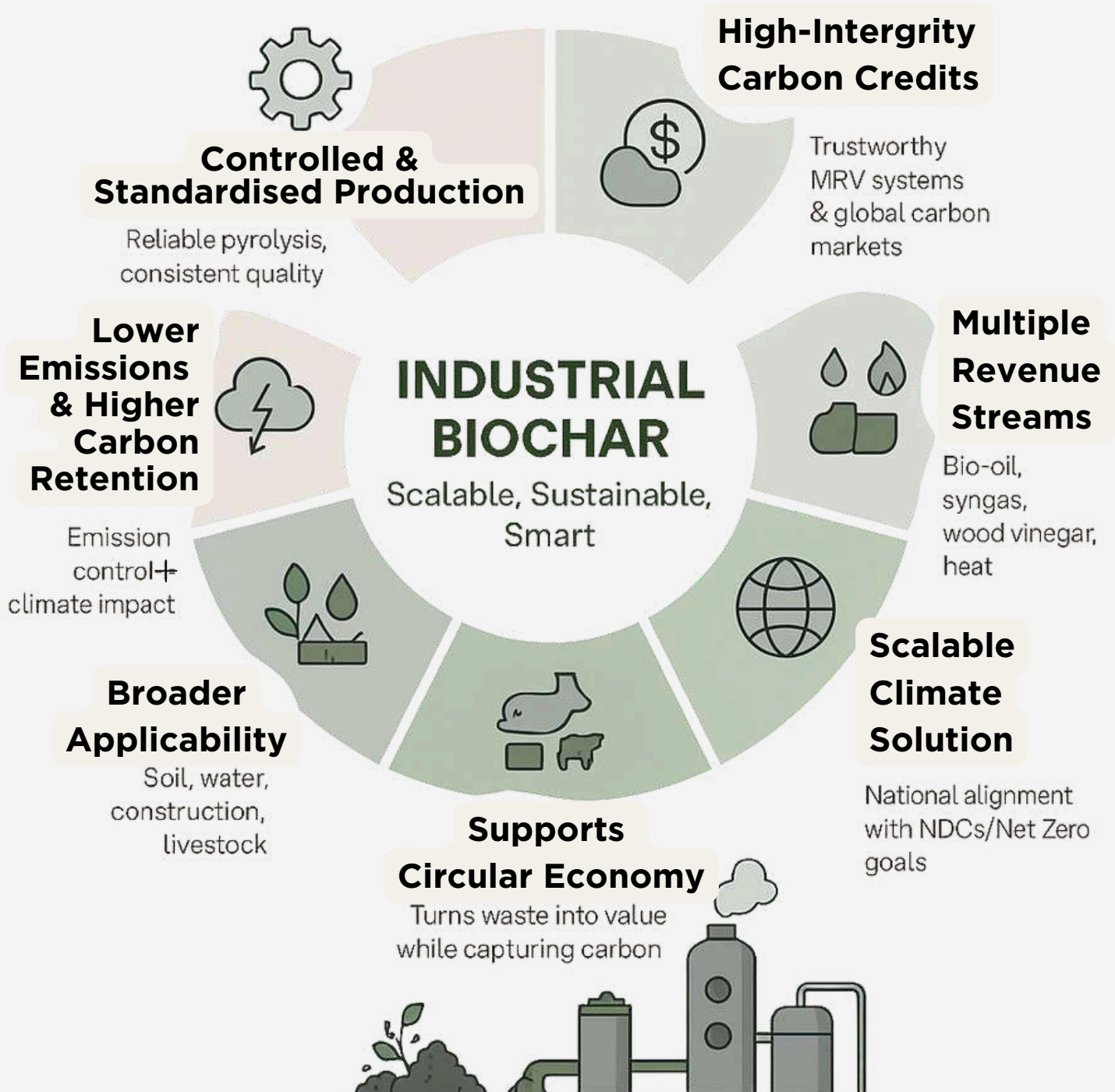
Women at the Root of Change

The leadership of women in bringing biochar practices to farms and transforming rural landscapes.



Industrial Biochar as the Next Leap Forward

Industrial biochar is not a replacement but an evolution. It not only retains the environmental integrity of our grassroots model while bringing enhanced efficiency and consistency, but also holds potential to meet growing national and global carbon markets.



Partner With Us

Join Us in Scaling Biochar Production for a Regenerative Future

We are actively seeking execution and biomass supply partners to help us bring the biochar revolution to scale. If you work with farmer networks, biomass aggregators, or forest waste handlers, we want to collaborate with you.

Together, we can transform surplus biomass into climate-positive, soil-restoring biochar, tailored for both field and industrial application. The raw material for change is already in our fields and forests — we just need the right hands to bring it to life.

Biomass

We are building region-specific blends using a wide array of agricultural residues and invasive species:

Agricultural Residues:

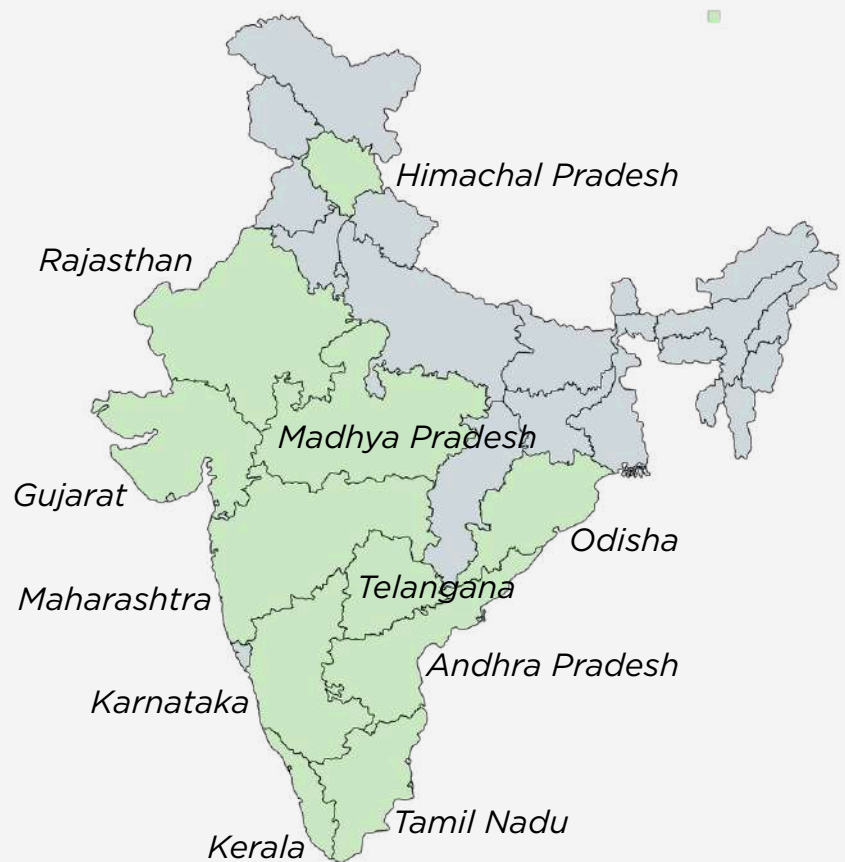
Coconut
Cashew
Cotton
Rice
Toor Daal
Maize
Chilli
Corn
Sugarcane
Castor

Invasive Species:

Lantana
Juliflora

Sourcing Hotspots

We're currently mobilising and building partnerships across the following high-potential states:



Looking Ahead: Deepening Roots, Widening Impact

This year was a foundational chapter in our biochar journey, from deploying decentralised models like C-Sink Networks to scaling farmer trials, building strong partnerships, and inaugurating the Biochar Center of Excellence. These efforts are not isolated milestones, but part of a growing ecosystem grounded in community, climate action, and collaboration.

As we look forward, our focus is clear: to deepen the quality of our work, scale with integrity, and co-create value with every farmer, artisan, and partner involved. With more states coming forward, new feedstocks explored, and industrial expansion plans, the opportunities ahead are immense.

We thank our implementation partners, community leaders, and the many Artisans who have made this movement come alive, not just as a model for carbon removal, but as a vision for regenerative rural development.

Let's grow further, together.





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