



THE RAMCO CEMENTS LIMITED, Chennai

Project location- Pandalgudi Mines, Ramasamy Raja Nagar,
Virudhunagar Dist. Tamil Nadu- 626113



Niskrtih (A Journey of Restoration)

1



Niskrtih (A Journey of Restoration)

- Trigger** Initiated by the Ramco Cements limited (Senior Management) + Auroville Botanical Services.
- Objective** To build self- sustaining ecosystem in exhausted mine pits (Oct 2018 to Dec 2025)
- Aim** Improve Biodiversity and provide knowledge and skill development to the local people.
- Uniqueness** First of its kind to develop the ecosystem in mined pits.

Project Road Map- Milestones															
Total Area-SM Pit -70 Acres, Pit 1-200 Acres, Opposite to SM pit Phase 3 =130 Acres (Total 400 Acres)															
Action	Oct-18	Jan-19	Oct-20	Jan-21	Feb-21	Mar-21	May-21	Oct-21	Dec-21	Mar-22	May-22	Dec-22	Mar-23	Dec-25	
SM pit-Eco park including Civil & Plantation work															
Pit-1 Eco park Land formation															
First Plantation work up to 1 lac saplings															
Second Plantation work up to 1.5 lac saplings															
Formal opening of SM Pit, Pit-1 with cycle track															
Opposite to SM Pit & Pit-1, Pit-2															
i) Nursery development															
ii) Concept plan															
iii) Final Development plan															
iv) Fencing of Site															
v) Major Land formation															
vi) Creation of pathway and landscape layout															
vii) Plantation of Gardens															
viii) First plantation of Trees in general area															
ix) Second plantation of Trees															
Phase -3															

2



Tangible benefits

- Enriched bio-diversity - 250+ species plan with 5 lakh plants.
- 50,000 KL additional rainwater harvested.
- 2000 Nos Native & Endangered species preserved - Adonsonia digitata, Albizia lathami, Salvadora persica.
- Dedicated education center – 10,000 students visited till date
- Employment for 50 locals daily.
- Training programs – conducted for 2000 forest officials till date
- Recognised by MoEF & Ministry of Mines etc.



3



Intangible benefits

- Better pollination – supporting farmers – Butterflies, Bees & Birds etc.
- Soil enrichment – Afforestation, Vermicompost and organic manuring (Panchakavya, Jeevamrutham, Amirthakaraikal).
- Carbon absorption – Improver air quality and Reduced carbon footprint.
- More rainfall – Positive afforestation impact.
- Skill development – Nurseries, herbal garden and Jeevaamrutham prep.
- Community health – Cycling/walking tracks and Children's park.



4



Replication Potential within group of Companies

Current project

Adventure Eco Park, Ariyalur, TN.



Upcoming project

- Green field project – Kolimigundla, Kurnool, AP
- Mines Restoration – Jaggayapet, Krishna, AP



Awareness & Outreach Training forest officials and educating the students

Youtube <https://youtu.be/rJvrKeSU3Yc>

5



Replication Potential within Sector

- Showcased eco-restoration achievements across industry and government.
- Celebrated by mining community during Environment and Mineral conservation week
- Published in national journal
- Training program for Forest Officials



- Achieved 5 Star Rating from IBM.
- Won Green award from TNPCB
- Presented for MOEF clearance

6



Challenges faced during execution of Project

Technical Challenges

- Invasive species (Prosopis Juliflora) – spread across landscape
- Boulder removal & land benching (manual + small equipments)
- Seed and sapling collection of native species



Administrative challenges

- Clearing of local community herds who were utilizing the land for grazing.
- Fencing- to prevent unauthorized entry of people & domestic animals.
- Skilled labours were engaged from Auroville, Pondicherry to train the local village groups for specific rock works and Xerophytic garden.
- COVID _19 (pandemic situation) - Absence of labours - temporarily slowed down the execution process.

Maintenance Related challenges

- High temperature and less rainfall
- Training program – Inexperienced local labours

7



Achieving national benchmarks/standards

Benchmarks

- Followed the SDG 13 AND 15



Awards

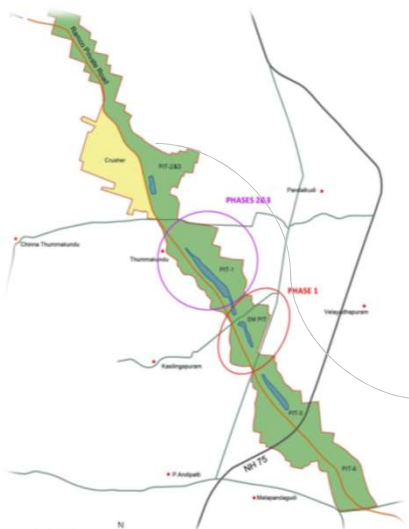
- First practical model in mine restoration and biodiversity development.
- CII-SR-EHS Excellence awards 2021 – special award - Eco Restoration Park.
- Green Champion award 2022 from TNPCB.
- 5 Star Rating from IBM.
- Pasumai Thamizhagam - in line with the Tamil Nadu state environmental initiative.



8



Future plans



Phase 1

- 70 acres – Eco restoration Park
 - Native Trees, Herbs & Shrubs Planting
- Target – 1.0 Lakhs saplings planted.
- Cost – Rs. 4.5 Crores**

Phase 2

- 200 acres - Dump afforestation –
- Target – 2.0 lakhs saplings planted.
- Cost – Rs. 4.5 Crores**

Phase 3

- 130 acres - Hill afforestation and children play area
- Target – 2.0 lakh saplings planted
- Cost – Rs. 4.5 Crores**

Future Plan

- 400 Acres abandoned Mines to be restored
- Target – 5 Lakhs saplings to be planted
- Cost – Rs. 10 Crores**
- Completion Year - 2030**

9



Best Practices

Bio-diversity

- Non-fertile land into self sustaining environment
- Promoted native species
- Development of In-house indigenous nursery to meet the resources of plants.

Miscellaneous

- Solid waste management, vermi-compost & bio-fertilizers are being practiced.
- Geological landscape in addition with green environment.
- Consistent effort – Longevity of the project.
- Placed information board and plants are tagged with QR scan for information
- Collaboration with experts – 'Auroville'
- Training program resulted the trained local manpower - creates much more resources.

Plant profile

Family: *Melastomaceae*

Names: English: Basilbush
Hindi: Gurakh
Tamil: Pappanappuli

Plant Characteristics

	Plant:	Woody: Yes
	Latex:	Absent
	Thorny:	Absent

	Leaf:	Type: Simple
	Shape:	Alternate
	Arrangement:	Yes
	Length:	12 cm
	Width:	6 cm



10



Major Learnings

- The endangered native species showed surprising growth and resilience - nurtured carefully and planted in the park.
- Techniques for tree plantation have been tested and refined, the list of species used in the plantation has grown as the nurseries have been able to source more seeds of the local native trees and shrubs.
- The Miyawaki technique (Japan) - refined and adapted – showed the amazing growth rates of native species.
- The fertile soil – important for afforestation activities – created the base of it during land development.
- Nature has a way of finding it's feet once the initial phase is aided.
- Eco park introduced small animals and birds - good indicators – Bio diversity.



11

Thank
You

12

12