




TATA Cummins Private Limited
Phaltan, Dist., Satara

Presenter:
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Project - Ecological Restoration of Kalaj Hill reserved forest area



Project highlights :

- Ecological restoration project on barren hill in Kalaj Village of Phaltan Dist. Satara.
(Area 25 Hectares)
- Tri-party agreement between Forest Department- Government of Maharashtra, Cummins India Foundation & NGO
- First Phase plantation work started in August 2019 and 6270 trees planted
- Second Phase plantation work started in June 2020 and 1564 Nos of trees planted
- 1900 running meters live fencing provided for protection from external threats.
- Capital investment of Rs. 1.15 Crores spend till date

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Why Kalaj Hill ecological restoration project ?

PLANET 2050 GOALS

1. Address Climate change
2. Reduce air emissions
3. Natural resource sustenance
4. Involvement of local communities

Targets

- 50% less GHG emission
- 30% less water consumption
- 25% less waste generation

Uniqueness of project

Model ecological restoration site at remote location
Tri party agreement project with forest Department
Benefits to 4 villages – 15000 local residents

Project located at water scare area
Plantation of drought resistant and local species

Scientific approach towards Ecological Restoration
Plantation of one year old and 06 feet tall trees

Project Dates

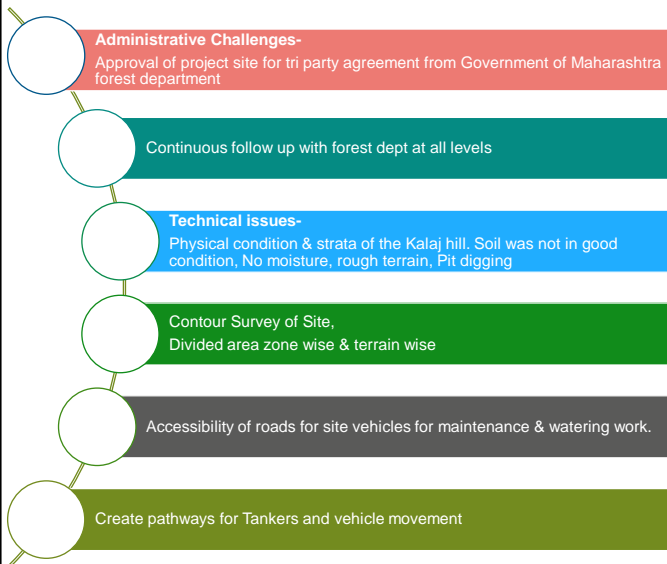
Project started in May - 2019
Phase 1 initiated in Aug - 2019
Phase 2 initiated in June - 2020
05 years maintenance after phase-2 plantation

Milestones

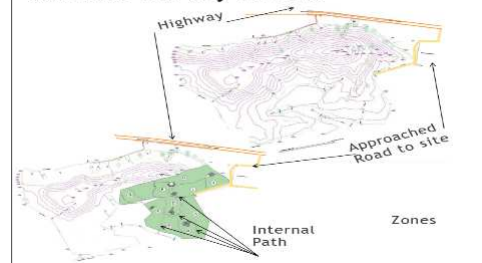
33 types of local species selected.
1900 running meter live fencing.
Phase - 1 6270 trees planted
Phase - 2 1564 trees planted
5500 employee CR hours
92% survival rate of plant species



List of challenges faced and counter measures



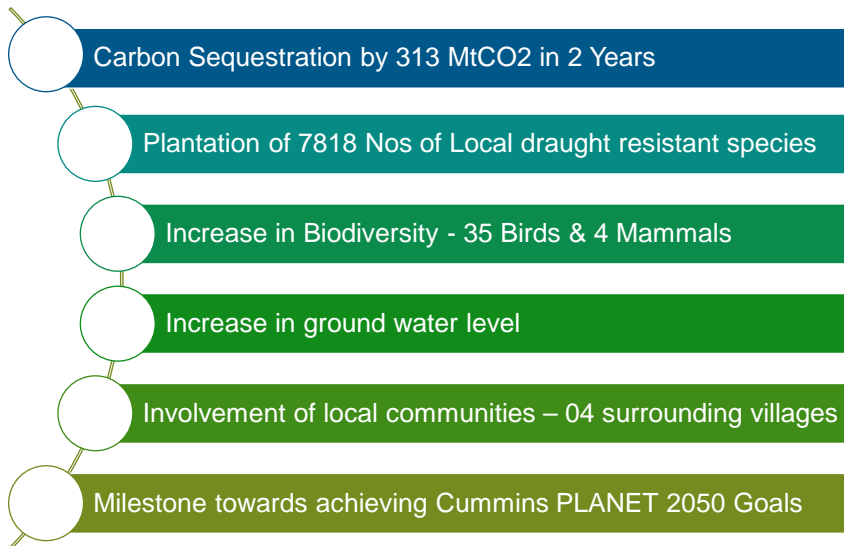
Contour Survey of site



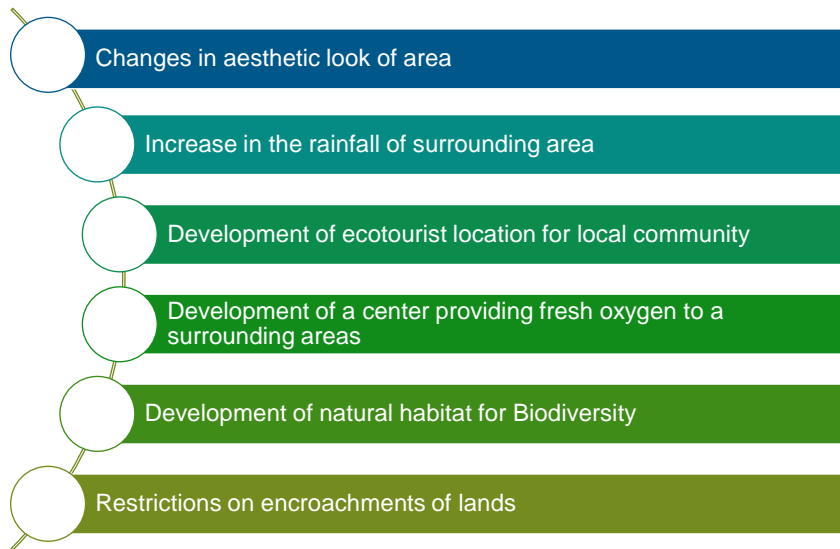
Kalaj Hill actual site Video

[Kalaj Hill site video.mp4](#)

Tangible benefits

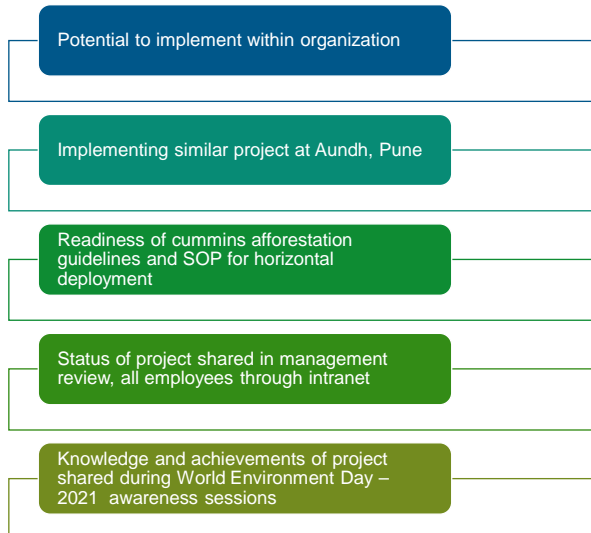


Intangible benefits



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Replication potential of project within sector



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Kalaj Hill site photos before after plantation

During Summer

Before



After



During Rainy Season



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Impact on Biodiversity at Kalaj Hill



All above are actual site photographs

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Impact on Biodiversity at Kalaj Hill



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Achievements of projects

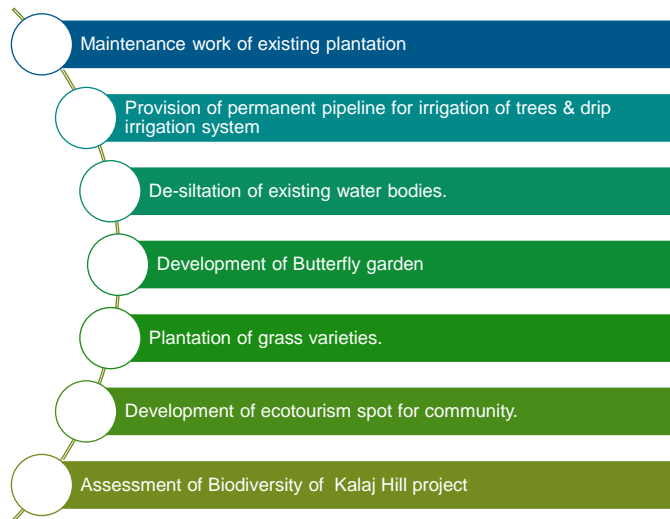


- It is the only tri party agreement project in Southern Maharashtra between Corporate & Forest department which achieved 92% survival rate against the forest department survival standard of 50%.
- Selection of 33 nos of indigenous drought resistant species
- 313 MtCO₂ Carbon Sequestration by trees.
- Scientific study & biodiversity Assessment of the project
- Completed CSR activity for 5500 hrs. at Kalaj hill project.
- Growth of grass varieties up-to 06 feet

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Priority plans



Disclaimer: All above activities are subject to approval from Forest Dept. to Cummins India Foundation

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Major learnings from the project implementation

Project learnings

Such projects can make major changes in local Biodiversity

Support & involvement of local communities is mandatory for success of project

Initial study like condition of strata, soil condition testing, biodiversity assessment is very much helpful & important for success of project.

Advance planning needed for resources like Water for irrigation, sufficient funds for project .

Selection of implementation agency which have exposure, knowledge & expertise of such project is crucial for project success

Selection of Local species for plantation is very much important to increase the Biodiversity.

Involvement of Employee through various ways to make them aware about the Environment

Working with Forest department will give technical, administrative & protection support at site.

We need to plan well in advance for the approval process from Government agencies

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Environmental performance evaluation

Management Performance indicator (MPI)

- Board of Directors provided the funding of 1.15 Crores through CR budget
- Involvement of Employees for 5500 hrs. through CR
- Involvement of top management on quarterly basis through review of projects
- Involvement of legal and government relation team in getting approval from government
- Regular site visit by top management to review the progress of project

Operational Performance Indicator (OPI)

- 313 Tons CO2 equivalent Carbon sequestration
- Increase in height of trees from 6 feet to 10 to 12 feet grass from 1 foot to 6 feet.
- Increase in ground water table
- Improvement in nutritional value of soil & reduction in soil erosion
- Guidance from subject matter experts.

Environmental Condition indicator (ECI)

- Increase in Biodiversity - 35 species of birds, 4 species of mammals, 5 species of reptiles, 4 species of amphibians, 20 species of grasses & shrubs, 2 species of Mushrooms
- Nesting of birds, Dens of Wolf & Jackals, sightings of Hyena, blackbucks at site.
- Holistic approach towards Biodiversity development.

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