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for Sustainable Development



Confederation of Indian Industry

# Investing in Biodiversity for Building Resilient Business

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## BioCare (India) Pvt. Ltd



### Biosil - Organic Soil Conditioner

- Highest selling product and sharing about 25% profits to the company
- Total investment INR 60 lacs during research & field trials

NBT	NBT	Composite Indicator	Initiative by BioCare
	By 2020, measures are adopted for sustainable management of agriculture, forestry and fisheries.	Trends in the use of biofertilizers/ biofuels, organic manure and vermicompost	Increase availability organic inputs to farmers supporting in the enhancing farms under organic agriculture.
	By 2020, ecosystem services, especially those relating to water, human health, livelihoods and well-being, are enumerated and measures to safeguard them are identified, taking into account the needs of women and local communities, particularly the poor and vulnerable sections.	Agricultural area under organic farming in agro-ecosystems	Avoidance of chemical fertilizers use due to availability of organic soil conditioners resulting into minimizing pollution entry in natural ecosystems.



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# Blending with Nature - Club Mahindra Madikeri Resort

## Risk

The Madikeri resort was planned on the two important principles one is to minimize cutting of native trees and coffee plantation and meeting tourist expectation for green and health environment at resorts.

## Mitigation Initiatives

- 26% plot area for construction of resort and keeping 74% plot area for maintaining tree cover
- Resort was constructed in four phases to minimize the construction impacts on the native vegetation
- Apartments are proposed on the sites which are having low biodiversity value and adjusted to minimize the cutting of trees







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# Blending with Nature - Club Mahindra Madikeri Resort

## Business Case

- Reducing ambient temperature in the resort area in comparison with areas nearby
- Avoidance of installation costs for air-conditioning amounting to INR 384.22 crore based on 2017 estimates
- Avoided cost on electricity (for air conditioners) in 2018 for 220 rooms will be around INR 1.85 crore

NBT	NBT	Composite Indicator	Initiative by Club Mahindra
	By 2020, values of biodiversity are integrated in national and state planning processes, development programmes and poverty alleviation strategies.	Trends in integration of biodiversity and ecosystem service values into sectoral and development policies and programmes	Economic and non-economic valuation of ecosystem services like ambient temperature control is integrated in business operation.



# Mahindra & Mahindra Ltd (M&M), Igatpuri

## Risk

- M&M, Igatpuri operations are located in the Western Ghats which is known for its rich biodiversity, heavy rains in the monsoon season and draught during winters and summer seasons.
- Project operations are heavily dependent on the fresh water requirements from the Maharashtra Jeevan Prabhakaran dam
- During winter and summer season the fresh water availability is crucial in the area due to its location at hill top and low water holding capacity
- In critical months the water supply was prioritized for drinking and irrigation purpose and not supplied to commercial operations
- Downstream areas of dam are dependent on water flow for aquatic life, floral and faunal community.


## Mitigation Initiatives

- Training to employees on behavioral changes for water consumption
- Adaptation technologies which required less water
- 100% green area covered under micro irrigation
- Increasing water storage in check dams and creation of new check dams within project boundary

# Mahindra & Mahindra Ltd (M&M), Igatpuri

## Business Case

- Adaptation of alternative mechanism helped M&M, Igatpuri in reducing the total water requirement by 60%. Sourcing water from Maharashtra Jeevan Prabhakaran dam was also reduced to 76% based on the 2015 level
- Total cost invested in the water conservation initiatives is around INR 1.24 crores and till date around INR 0.42 Crores are saved on the water bills.

NBT	NBT	Composite Indicator	Initiative by M&M, Igatpuri
	By 2020, values of biodiversity are integrated in national and state planning processes, development programmes and poverty alleviation strategies.	Trends in integration of biodiversity and ecosystem service values into sectoral and development policies and programmes	Minimisation of water and minimizing operational risk due no availability of water for the community and securing own operational requirements.







# Sukinda Chromite Mine, Tata Steel Limited

## Risk


- Chromite ore has mostly trivalent oxide (Chromites) but also a small amount of hexavalent chromium [Cr (VI)].
- This form of chromium is toxic to animals and humans.

## Mitigation Initiatives

- Adopted nature-based solution using the fruit powder of *Terminalia chebula* for the removal of Cr (VI) from Chromite concentrates
- The process helped in minimizing Cr(VI) to trace levels (0.02 mg/kg)
- No any secondary pollutant in water, ore concentrate and no hazardous waste generation

## Business Case

- Cost savings of about INR 1.8 crores/ annum for chromite concentrate production rate of about 5 lacs ton concentrate/year.

NBT	NBT	Composite Indicator	Initiative by Tata Steel
	By 2020, ecosystem services, especially those relating to water, human health, livelihoods and well-being, are enumerated and measures to safeguard them are identified, taking into account the needs of women and local communities, particularly the poor and vulnerable sections.	Level of toxic contaminants in wetlands/ rivers/ aquatic fauna	Adopted nature-based solution by the use of fruit powder of <i>Terminalia chebula</i> for the removal of Cr (VI) removal from Chromite concentrates.

# JSW DHARAMTAR PORT PRIVATE LIMITED

## Risk


- Dharamtar Creek is formed by the flow of River Amba
- Creek having moderate cover of mangroves with mud flats and low-lying, marshy areas on its sides.
- Loss of mangrove due to increased activities in creek area

## Mitigation Initiatives

- Construct embankment around the 5,000 ha land to control intrusion of salt water into agricultural land
- Plantation of 4.05 lacs saplings on 80 ha area
- Target to plant 1 million saplings cumulatively by 2020
- 10 awareness-cum- training sessions for the local stakeholders

## Business Case

- Maintenance of license to operate
- Supports livelihoods of about 16,500 fishermen and farmers from 6 group gram panchayats for the control of salt water intrusion and keeping agriculture land intact and productive

NBT	NBT	Composite Indicator	Initiative by JSW
	Strategies for reducing rate of degradation, fragmentation and loss of all natural habitats are finalized and actions put in place by 2020 for environmental amelioration and human well-being.	<p>Trends in mangrove cover and coastal area management</p> <p>Trends in maintenance of fertility in agricultural lands using natural methods and means</p> <p>© Confederation of Indian Industry</p>	<p>Mangrove cover developed 80 ha till date, and an additional 120 ha by 2020.</p> <p>Supports livelihoods of 16,500 fishermen &amp; farmers from 6 gram panchayats</p>





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# Thank you!

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