



Confederation of Indian Industry

Enhance Competitiveness of Indian Sugar Industry through Adoption of GreenCo Rating System

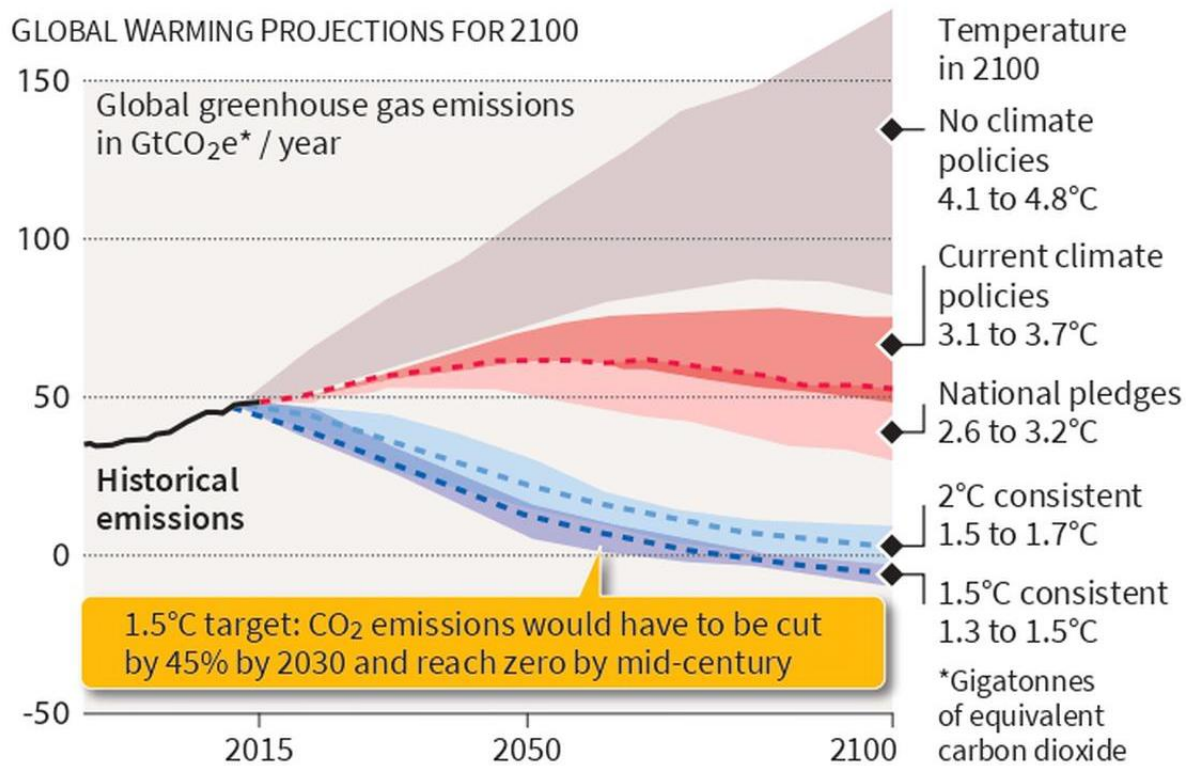


Ecological Footprint & Net Zero Goals

The threat of rising temperatures

In 2018, the IPCC released a report on the impact of global warming when temperature reaches 1.5 degree Celsius above the baseline temperature of pre-industrial levels. It also drew a comparison with the effects of 2 degree Celsius warming

GLOBAL WARMING PROJECTIONS FOR 2100



- Temperature raised to 1.1 deg C
- Limit Global temperature rise to 1.5 deg C
- Reduce 45% of Carbon emissions by 2030
- **Reach Net Zero by 2050**
- Carbon Tax on Export Market

CLIMATE IMPACTS	Rise of 1.5°C	Rise of 2°C
Arctic: Sea ice-free summer	Once per century	Once per decade
Sea level rise: Exposure to flooding in 2100	31-69 million people worldwide	32-80 million people worldwide
Extreme heat: Exposure at least once every five years	About 14% of global population	About 37% of global population
Severe drought: Increase in urban population	+350 million people worldwide	+411 million people worldwide
Status of coral reefs	70-90% lost	99% lost
Plants and animals: Species losing more than half of their range	6% of insects, 8% of plants, 4% of vertebrates	18% of insects, 16% of plants, 8% of vertebrates

Sources: IPCC, The New York Times, Reuters, The Conversation

© GRAPHIC NEWS

GOVT OF INDIA'S INITIATIVES ON CLIMATE CHANGE

- **LiFE – Life for Environment – Sustainable and resource efficient way of living**
 - Introduction of green credits, carbon credits trading scheme
- **To reduce GHG emission intensity of GDP by 45% by 2030 from 2005 level**
- **To achieve 50% cumulative electric power installed capacity from Renewable by 2030**
- **To create forest carbon sink of 2.5 to 3 billion tons of CO₂**



Aim : To achieve Net Zero by 2070

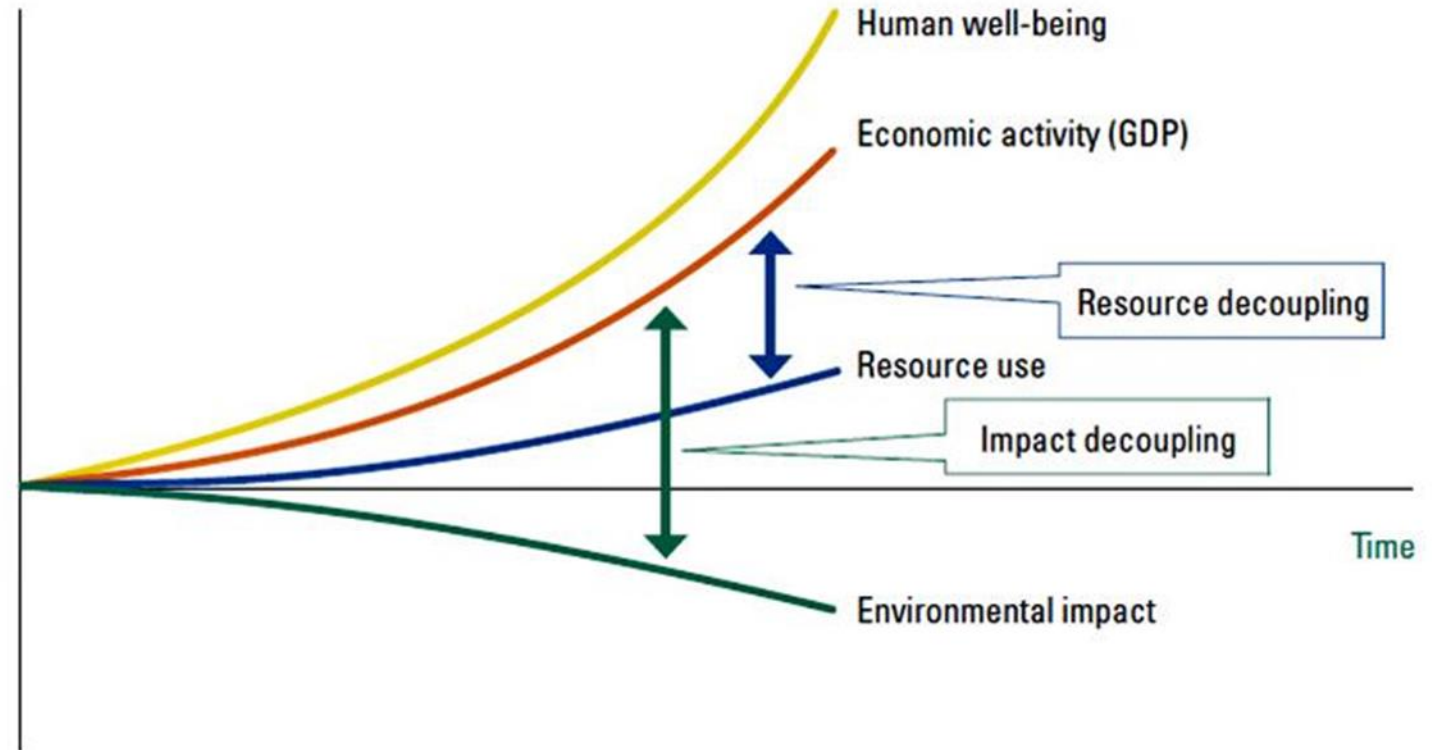
Need of the Hour



**Improve
Efficiency**



**Resource
Intensity**



from: Decoupling Natural Resource Use and Environmental Impacts from Economic Growth
2011 UNEP International Resource Panel Report

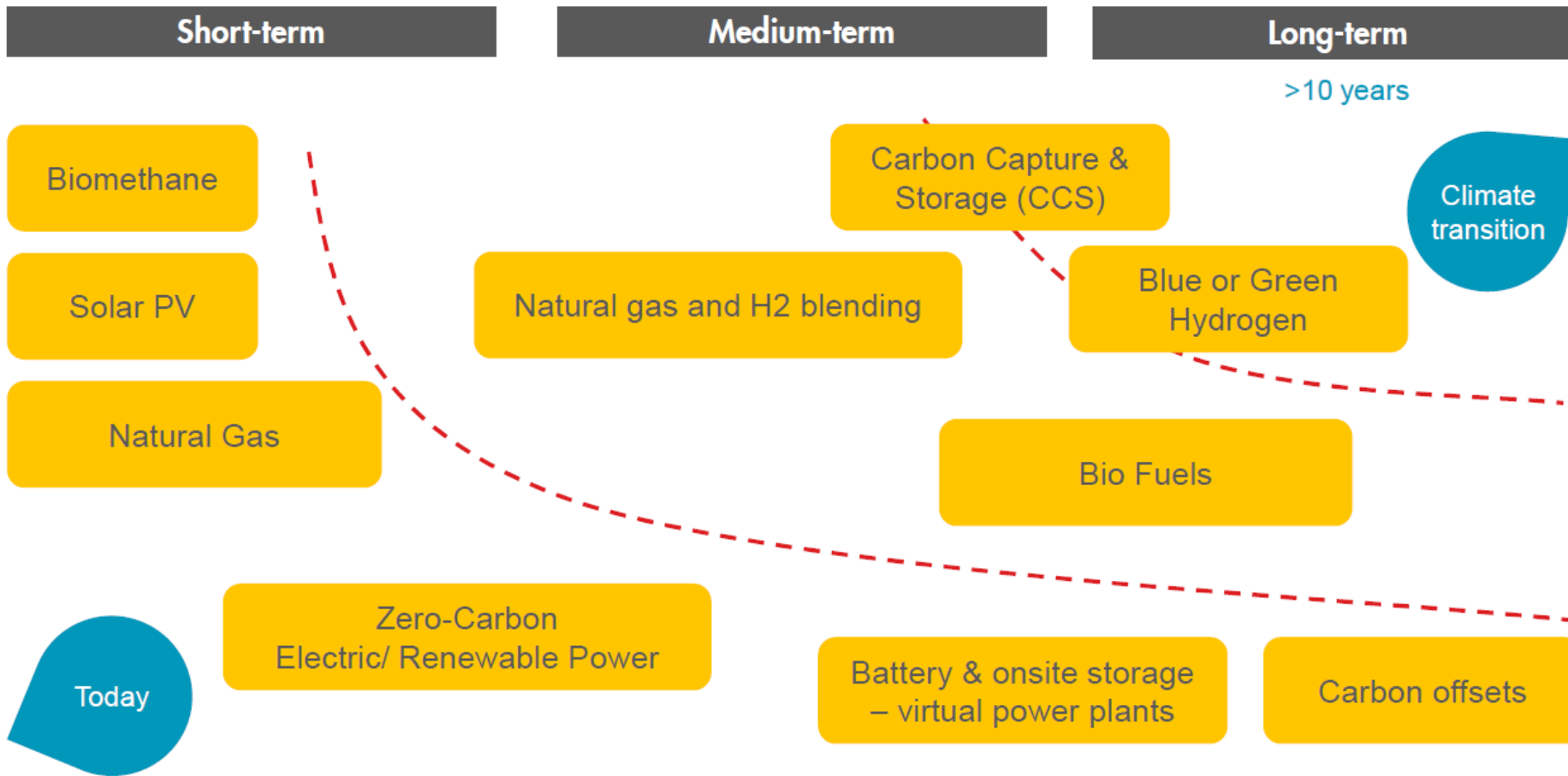
Pursuing 'Green' is the major opportunity

Quick Glance : Indian Sugar Industry



- World's largest Producer, Consumer as well as 2nd largest exporter
- 2nd largest Agro-based industry (*next to textile industry*)
- 534 operating plants ; ~34 MMT / annum production
- More than 50 million farmers & 5 lakh+ workmen engaged, directly
- ~ 5 billion litre / annum ethanol production
 - Target :>20% blending by 2025
- ~ 8800 MW installed capacity – bagasse-based cogen
- Actively contributing to National Bioenergy program

The sugar sector has various decarbonisation pathways



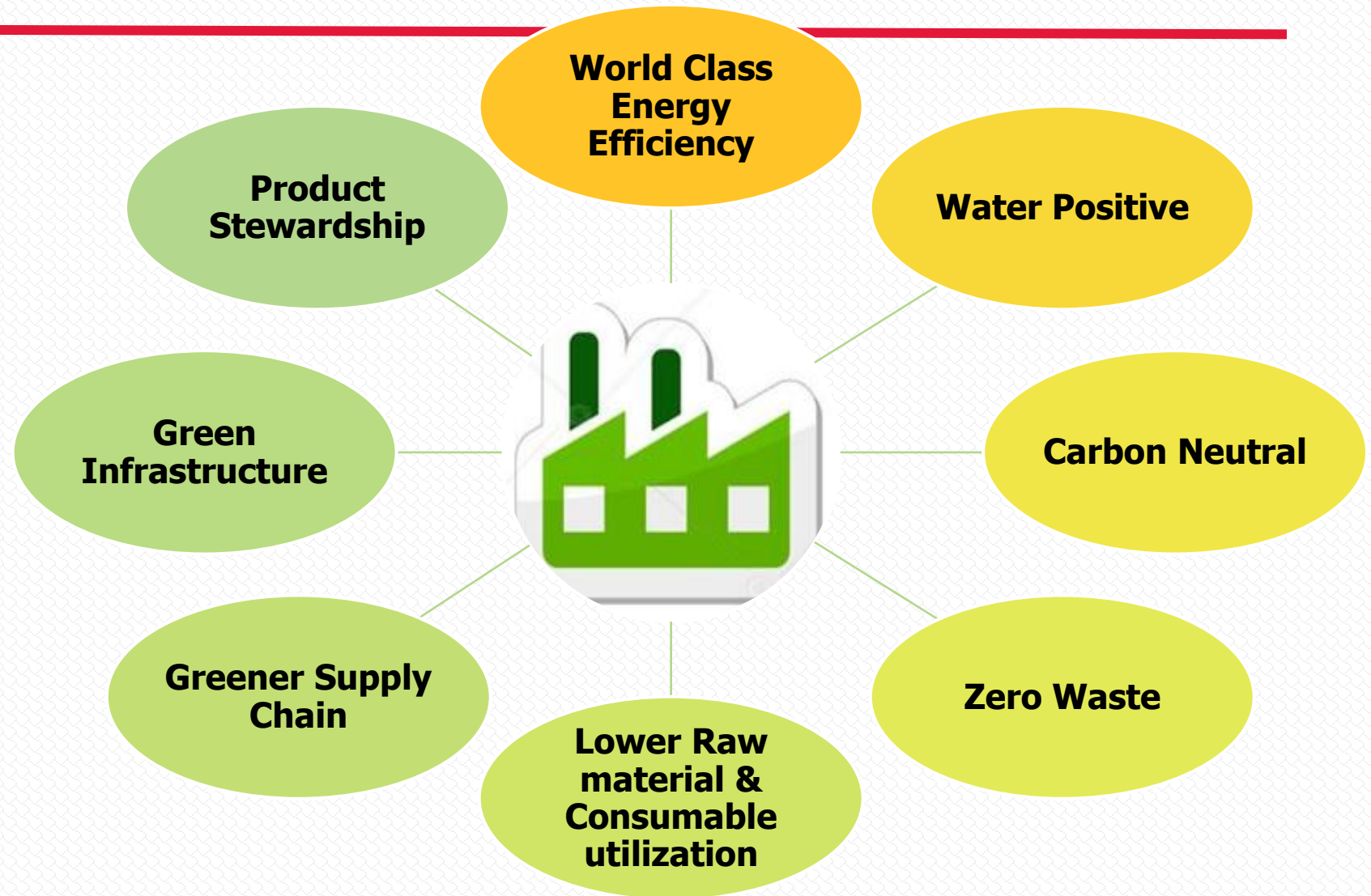
Copyright of Shell International B.V.

RESTRICTED

How to become a "World Class Sugar Mill"?

- **Ultimate objective**

- **Carbon Neutral,**
- **Water Positive**
- **Zero Waste**



CII - GreenCo Rating System

- ❖ To assess Environment performance of companies
 - Facilitate to achieve world class in 'Green' and facilitate Net Zero
 - Holistic / Life cycle approach, including biodiversity
- ❖ First of-its-kind in the world
- ❖ Excellent response – 1200+ companies are working
 - 900+ Companies are rated
- ❖ GoI acknowledged in India's – 'Nationally Determined Contribution' document to UNFCCC



GreenCo Rating System – Version 4 (2023)

No	Parameter	Points
1	Management System	75
2	Energy Management	150
3	GHG Management	150
4	Water Management	125
5	Material Resource Management	125
6	Green Supply Chain	100
7	Product Stewardship & Life cycle aspects	125
8	Innovation for Environment	50
9	Green Built Environment, Ecology & Others	100
Total		1000

Platinum+ Applicable to Platinum companies – continue to improve & excel to next higher level



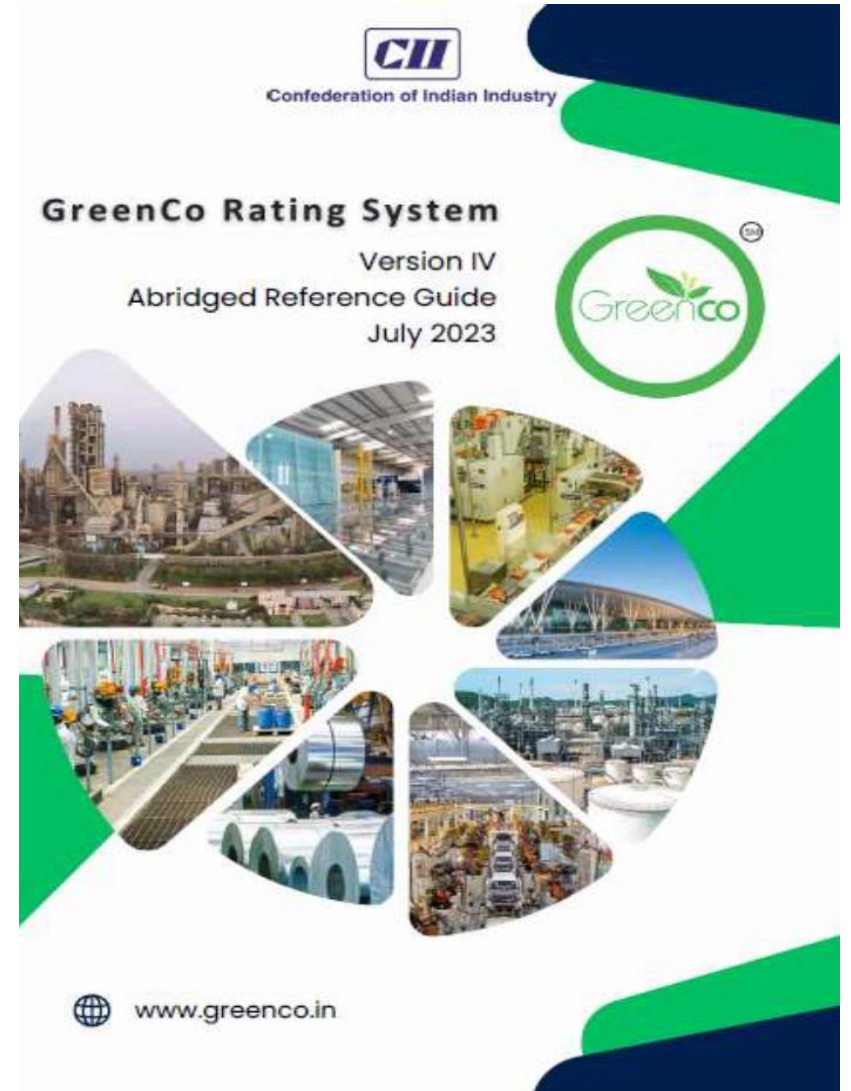
*Applicable from Aug'23

© Confederation of Indian Industry



GreenCo rating for sugar sector

- **Rating parameters and credits fine tuned to sugar sector**
- **Senior persons consulted**
- **All 3 combinations**
 - **Sugar plant**
 - **Sugar + co-generation plant**
 - **Sugar + co-generation + distillery**



How GreenCo can help Indian Sugar Industry ?





TRANSFORMING ORGANIZATIONAL BEHAVIOUR FOR SUSTAINABILITY

Aligning organizational behavior with sustainability goals isn't merely advantageous—it's crucial for long-term success. This representation illustrates how an organization can embed sustainability strategies across key operational

Sustainability Parameter / Org. Behavior Parameter	Energy Efficiency Improvements	Clean & Green Energy Adoption	Sustainable Supply Chain Management	Waste Reduction & Recycling	Carbon Footprint Reduction
Leadership & Commitment	Deployment of Vision, Mission & prioritises funding for energy efficiency technologies	Gain Leadership Commitment to renewable energy projects	Advocate for greener suppliers and materials	Leaders incentivise programs for waste management improvements	Leadership commitment to carbon reduction strategies
Employee Engagement	Encourage employee-led initiatives to reduce energy use	Involve employees in renewable energy projects and decisions	Train staff on eco-friendly practices in sourcing	Organise employee recycling challenges and rewards	Employee engagement in carbon reduction strategies
Organisational Culture	Incorporate energy conservation as a fundamental value throughout the organization	Cultivate a culture that embraces renewable energy solutions	Foster a Culture valuing sustainable supply chain practices	Promote a culture of zero waste and Recycling habits.	Cultivate a mindset of continuous carbon reduction improvements
Performance Management	Include energy efficiency goals in performance reviews	Link management incentives to renewable adoption metrics	Integrate sustainable sourcing into business performance	Measure performance by reduction in waste generated	Track carbon reduction as a key performance indicator

GreenCo : Transforming an Organizational Behaviour

GreenCo Rating System & BRSR

BRSR	GreenCo
Governance, Leadership & Oversight	Systems: Leadership, Employees, Policies, Reviews Monitoring Systems
Life Cycle Perspective / Assessments	Life Cycle Assessment, Product Carbon Footprint, GreenPro, Environment Product Declaration
Materiality Assessment	Mapping of all resources – Energy, Material, Water, Waste; Risk Assessment
Energy, Water, Waste, Air Emissions, GHG Emissions (1&2)	Target setting, Energy, Renewable Energy, Water, Waste, Air Emissions, GHG Emissions (1,2&3), Raw Material, Consumables, Packaging, Supply Chain Resources
Social Impact Assessment	Social aspects among stakeholders: Employees, Value Chain Associates, Society
Consumer Value	Product Design, Performance, Use, End of life

GreenCo helps companies to perform beyond regulations and facilitates world class practices



1170+ units are working on the GreenCo rating system



.....and many more

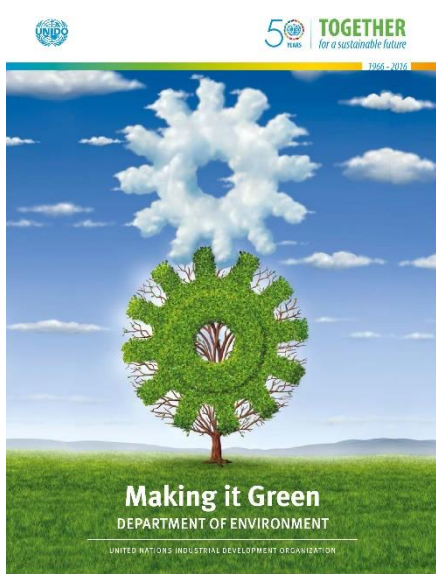


Benefits achieved by the first 500 rated companies





GreenCo Recognitions



Indian Railways
> 70 Workshops and
Production Units are rated



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Recognition by UNIDO

Among the top 50 best initiatives
in the world



International
Trade
Centre

United Nations

International Trade Centre

As a voluntary rating from India and
Facilitating Sustainable Consumption &
Trade



सत्यमेव जयते



UNFCCC

Recognition by the Government

GreenCo included in India's NDC for
climate change mitigation submitted to
UNFCCC

INDIA'S INTENDED NATIONALLY DETERMINED CONTRIBUTION:

WORKING TOWARDS CLIMATE JUSTICE

ॐ द्यौः शान्तिरन्तरिक्षं शान्तिः
पृथिवी शान्तिरापः शान्तिरोषधयः शान्तिः ।

"Om dyauh śāntir antarikṣam śāntih prithvi śāntih āpah śāntih osadhayah śāntih"

-- Yajur Veda 36.17

{{Unto Heaven be Peace, Unto the Sky and the Earth be Peace, Peace be unto the
Water, Unto the Herbs and Trees be Peace}}





State Pollution Control Boards – Recognition & Incentives

GreenCo companies stay ahead of compliance



- Green rating of industries in Rajasthan: July 2021
- Incentive scheme –
 - ✓ 5 – 50% reduction in consent fees based on rating level
 - ✓ Increase in consent period

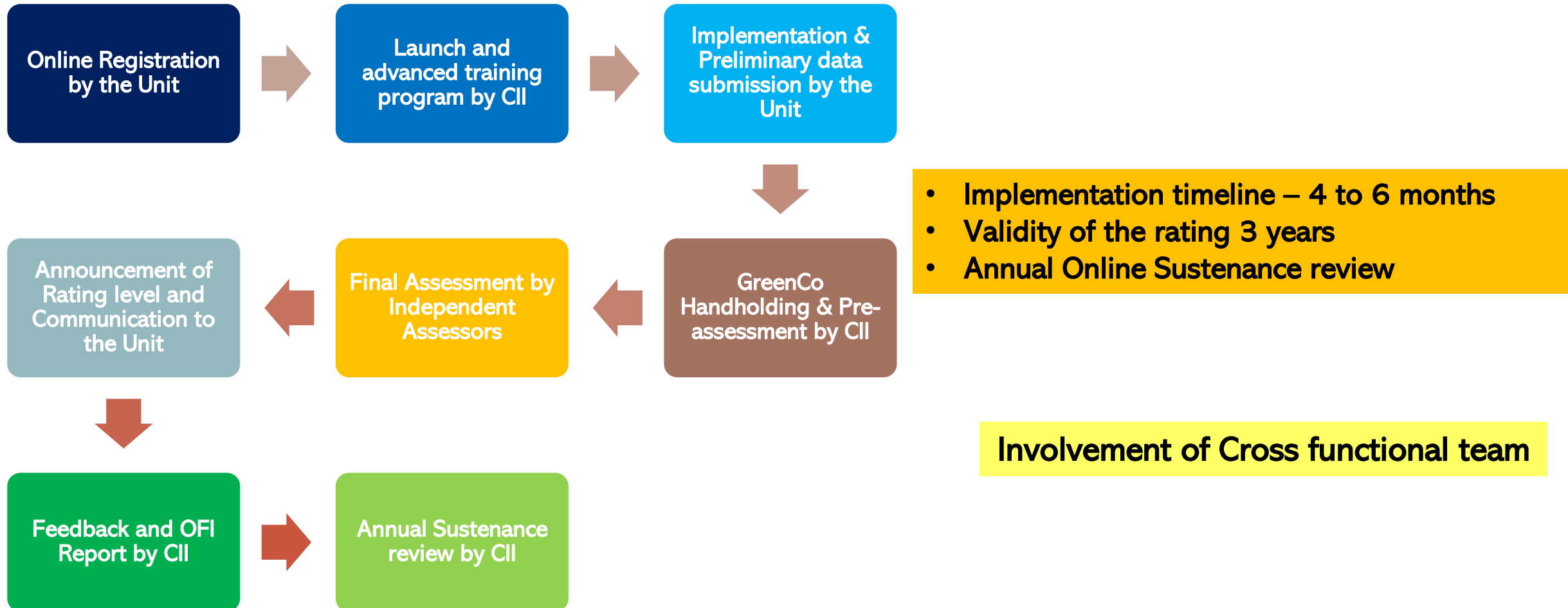


- Green rating of industries in Karnataka: March 2023
- Incentive scheme –
 - ✓ Cost benefits ranging from INR 50,000 to INR 10,00,000 for industries



- Green rating of industries in Goa: February 2023
- GreenCo parameters added to mandatory environmental audits for red and orange category industries

GreenCo Rating – Process



To sum up

- **GreenCo – Excellent tool to improve Green competitiveness and facilitate Net Zero & ESG performance**
- **Sugar mills to be part of GreenCo Movement**
- **Look forward to have Indian Sugar Industry as part of the GreenCo Movement**



Be The Leader : Join the Green Movement

**Scan QR to Register
CII-GreenCo Rating**





Confederation of Indian Industry



Sabyasachi Sengupta
Principal Counsellor
CII – Sohrabji Godrej Green Business Centre
Hyderabad

Mob: 8978110085

E-mail: sabyasachi.sengupta@cii.in

www.greenbusinesscentre.com / www.greenco.in

THANK YOU !