RECEIC Awards on Resource Efficiency & Circular Economy

HINDUSTAN PETROLEUM CORPORATION LIMITED

Collaboration & Partnership for Impact – Industry

FIRST SOME GOOD NEWS

Services sector leads in project completions (₹ lakh crore)

Services 1.9

Manufacturing 1.5

Dec Mar, 2026

Showers and sunshine tame India's emissions

After Decades, Carbon Discharge Falls Amid 2025's Prolonged Monsoon & Renewable Gains

G.Balachandar
@timesofindia.com

Chennai: India's carbon emissions have, for once, paused. In 2025, the country's carbon dioxide output edged down, breaking a decades-long trend of steady increases. This is also the first time on record that emissions have fallen during normal economic conditions. Previous declines were seen only during exceptional disruptions, such as the 2020 pandemic and the oil shocks of the 1970s.

The drop was driven largely by cyclical factors linked to a strong monsoon last year, alongside a continued robust expansion of renewable capacity..

In 2025, the monsoon arrived early and with unusual force—both strong and prolonged. Cooler temperatures and heavier rains reduced electricity demand, particularly by lowering the need for air conditioning and agricultural water pumping—two of the grid's biggest loads. Power consumption lost momentum, growing by just 1.4% in 2025 after four years of expansion above 6%.

Cooling demand was especially subdued, with cooling degree days were 10% lower than in 2024, according to estimates from the International Energy Agency.

That softness in power demand fed straight into coal, still the backbone of India's power mix. Coal-fired generation slipped by around 3%—only the third such decline in half a century. Weather alone is estimated to have reduced coal demand by roughly 8 million tonnes of coal equivalent, cutting more than 20 million tonnes of CO_2 emissions.

At the same time, the supply side grew cleaner. Generous rains lifted hydropower output, while renewables continued their rapid ascent. India added nearly 50GW of solar capacity in 2025, pushing total renewable additions up by about 60%, the fastest pace among major economies. Wind installations, though smaller in scale, also doubled to more than 6GW. With demand subdued and cleaner generation rising, natural-gas use fell by 3.5%, including a near 10% drop in gas-fired power.

Elsewhere, weather conditions had a notable impact on emissions. In America, a cold winter and higher gas prices encouraged a switch back to coal, nudging emissions up. Europe's emissions continued to fall, though more slowly, as weaker wind and hydro output coincided with stronger heating demand. China, by contrast, managed a modest decline of around 0.5%, as rapid additions of renewables and nuclear power displaced coal in electricity generation.

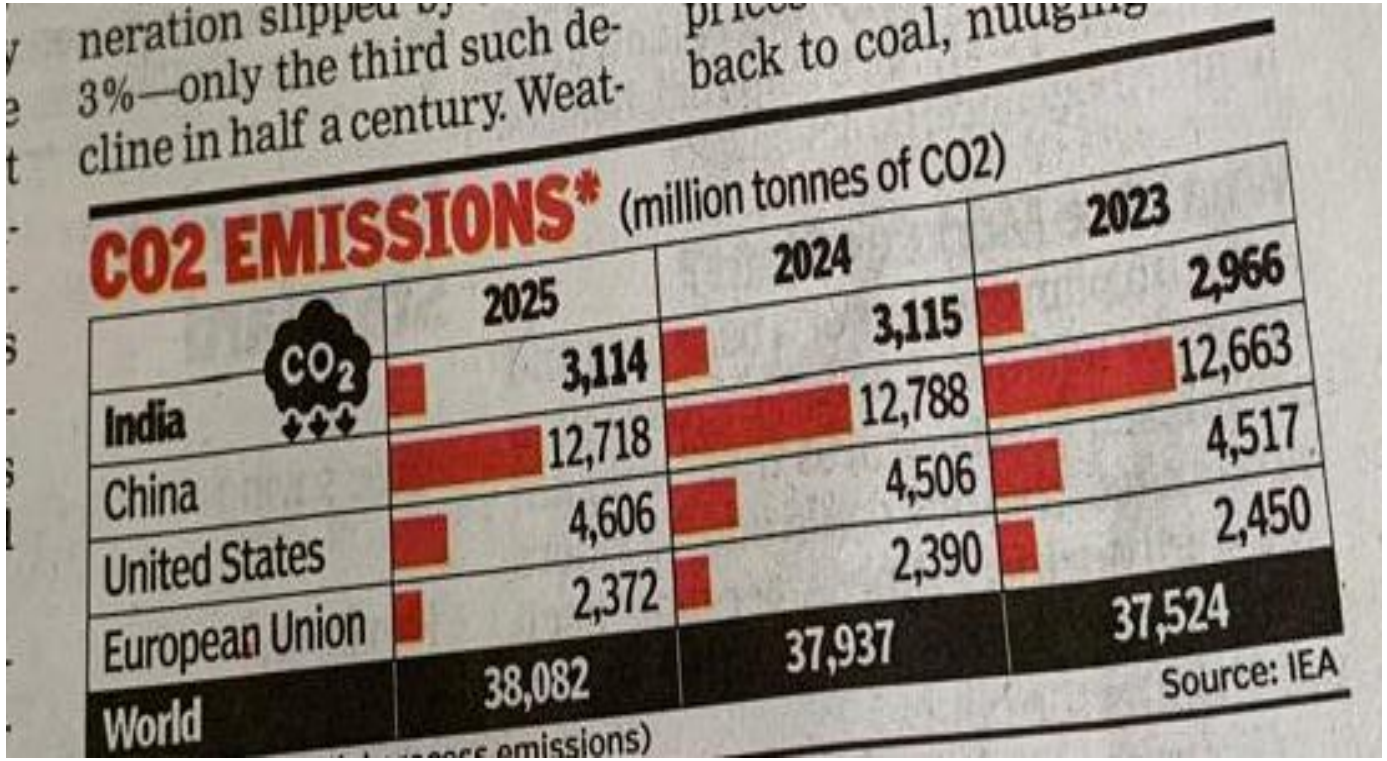
Globally, the pattern was unusual. For the first time in nearly three decades, emissions in advanced economies grew faster than in emerging ones: rising by 0.5% in the former, while slowing to 0.3% growth in the latter.

CO2 EMISSIONS* (million tonnes of CO2)

	2025	2024	2023
India	3,114	3,115	2,966
China	12,718	12,788	12,663
United States	4,606	4,506	4,517
European Union	2,372	2,390	2,450
World	38,082	37,937	37,524

Source: IEA

*(includes industrial process emissions)



neration slipped by ... 3%—only the third such decline in half a century. Weat- ... prices ... back to coal, nudging

CO2 EMISSIONS* (million tonnes of CO2)

	2025	2024	2023
India	3,114	3,115	2,966
China	12,718	12,788	12,663
United States	4,606	4,506	4,517
European Union	2,372	2,390	2,450
World	38,082	37,937	37,524

Source: IEA

*(includes industrial process emissions)

Agenda

ABOUT THE INITIATIVE

ACCOMPLISHMENTS

WAY FORWARD PLAN

About the Initiative – Problem Statement

India's used-oil ecosystem needed structure, traceability & compliance"

- Fragmented collection network; high leakage to informal burning

- Limited traceability across workshops, transporters & recyclers

- Low RRBO utilisation; inconsistent quality & documentation

- New EPR framework demands certified recycling & transparent reporting

- Industry lacked a unified, scalable, compliant circular-economy model

About the Initiative – Solution & Innovation

HPCL built India's first PSU-led, multi-stakeholder circularity ecosystem

- Partnerships with Core Sector, OEMs, recyclers, digital platforms
- SOP-based collection, compliant transport & certified recycling
- Digital traceability QR documentation, audit trails
- RRBO quality validation aligned with BIS 18722
- Governance framework + joint audits + structured EPR adjustments
- Investment in training, onboarding, and digital infrastructure

About the Initiative – Leadership, Maturity & Coverage

A mature, scalable national model anchored by HPCL

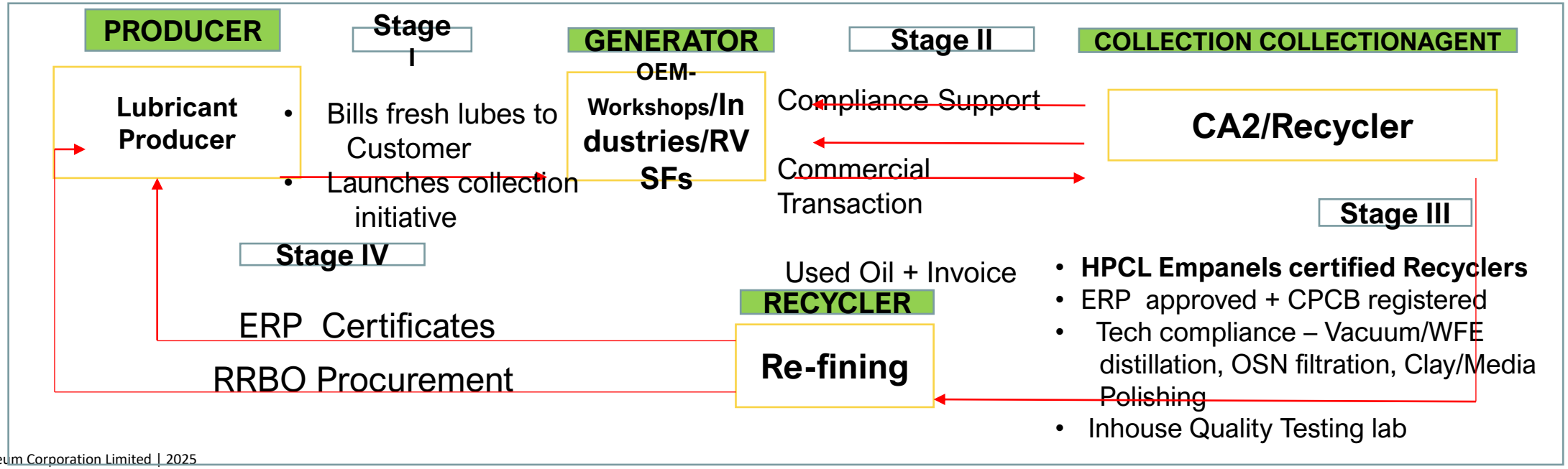
Leadership-driven ecosystem integration across Core Sectors, OEMs & recyclers

HPCL proposed and recommended NUOMA to harmonise national practices

Mature model with SOPs, audits, digital workflows & compliance protocols

Coverage across multiple states, OEM networks, core sector & recycler clusters

Replicable framework ready for pan-India expansion



Accomplishments – Quantitative Impact

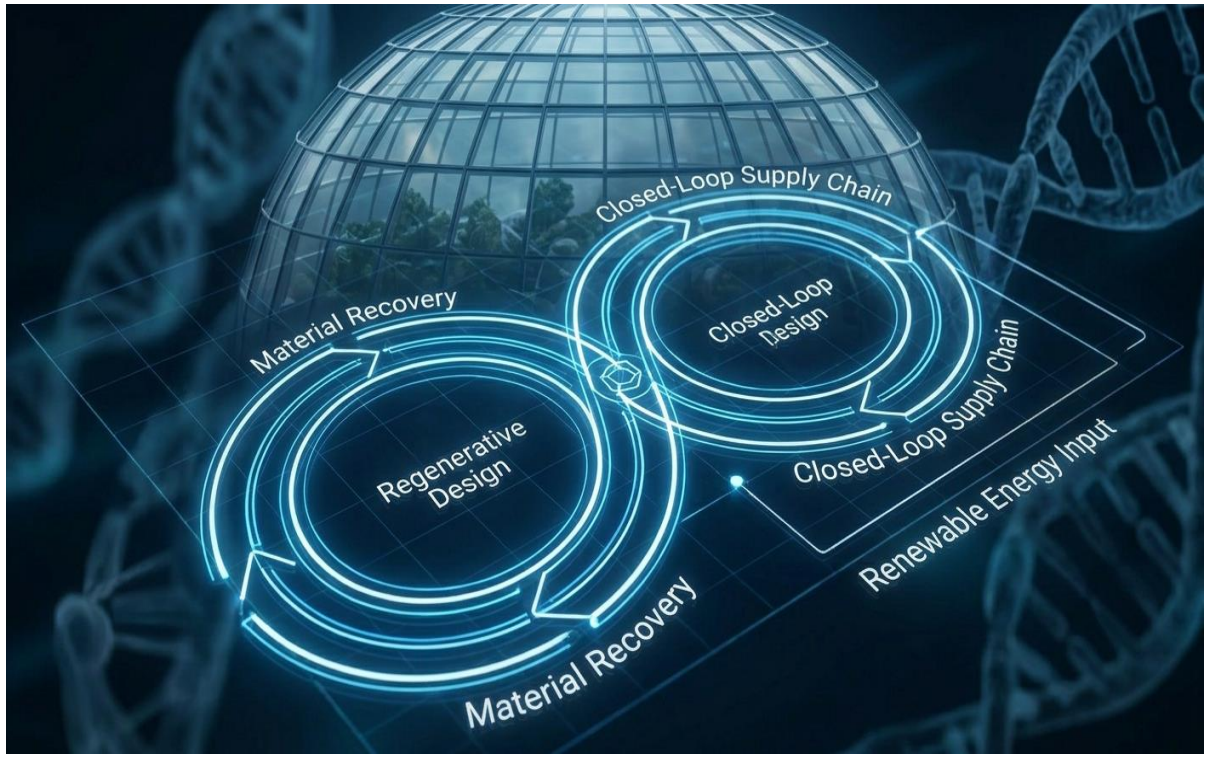
- Increased compliant used-oil collection across workshops & corporate sites
- Reduction in informal disposal & unsafe burning
- Higher RRBO utilisation through validated recycler partnerships
- Improved EPR fulfilment reliability; reduced EC exposure
- Strengthened recycler capacity & certificate availability
- Enhanced traceability across the entire value chain

Accomplishments – Qualitative Impact Supporting the Nations Circular Economy Initiative

- Transparent, auditable, digitally traceable operations
- Industry-wide confidence through NUOMA collaboration
- Improved workshop compliance & safety practices
- Stronger institutional partnerships (Corporates, OEMs, recyclers)
- Recognition as a PSU leader in circularity & environmental stewardship

Way Forward Plan

Scaling the model into a national circularity backbone



- Expand Core Sector & OEM partnerships to full national coverage

- Deepen recycler audits, RRBO quality assurance & certificate reliability

- Strengthen digital traceability

- Build a unified national CA1/CA2 network under NUOMA

- Leadership commitment to make HPCL the anchor of India's used-oil circularity ecosystem

FICCI 100
100 YEARS OF BUILDING TOMORROW

Resource Efficiency and Circular Economy Industry Coalition

THANK YOU