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The National green hydrogen mission, emerged as a cornerstone of industrial decarbonisation efforts: Ramakrishnan M of Primus Partners



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Article Content:

As 2024 draws to a close, India's sustainability landscape reflects both milestones achieved and challenges that persist. This year marked a blend of bold government initiatives, increased private sector participation, and persistent systemic hurdles, all contributing to the evolving green narrative.

A Year of Green Governance

The Indian government reaffirmed its leadership in climate action through an ambitious renewable energy push. The budget allocated substantial resources—₹19,100 crore—to the Ministry of New and Renewable Energy, underscoring a strategic focus on green energy and infrastructure development.

Solar and wind power installations were at the heart of this transformation, bringing the nation's renewable energy capacity to 203 GW, accounting for 46% of its energy mix. This progress positions India on track to meet its ambitious target of achieving 50% non-fossil fuel capacity by 2030.

Offshore wind energy also gained traction, with the government greenlighting its first 1 GW project under viability gap funding worth Rs 7453 crore (\$890 million) – a critical move to tap into the untapped potential of India's extensive coastline.

Policies were aimed at accelerating electric vehicle (EV) adoption – especially its charging infrastructure. The Indian government plans to launch the 'Bharat Urban Megabus Mission' in 2025, with a goal of deploying 100,000 electric buses.

The Ministry of Power mandates 5% biomass co-firing in Thermal Power Plants (TPPs) from FY 2024-25. CBG Blending Obligation (CBO) will be voluntary till FY 2024-2025 and mandatory blending obligation would start from FY 2025-26.

Furthermore, the government has prioritised sustainable agriculture through programs like "Natural Farming," which will promote eco-friendly practices and enhance productivity through

climate-resilient crop varieties. The scheme has a total outlay of Rs.2481 crore.

The National Green Hydrogen Mission, backed by ₹600 crore in funding, emerged as a cornerstone of industrial decarbonisation efforts. Targeting sectors like steel, cement, and transportation, this initiative underscores India's ambition to lead in hydrogen technology.

The Role of Private Sector

The private sector saw action on two fronts.

First of all, the thrust on clean energy saw accelerated activities. Thanks to ethanol blending program, the industry saw its capacity being ramped up. EV businesses continue to attract investor interest. Businesses have started studying the scope of Carbon capture, utilisation, and storage (CCUS).

Secondly, those companies which have been historically adding emissions to the earth, are now being more cautious about ESG. They are voluntarily investing in carbon-sucking initiatives such as afforestation. By the time carbon neutrality becomes a regulatory mandate, these corporations would already have their processes streamlined, and be ahead of others.

Notably, green finance emerged as a pivotal enabler. Domestic banks and financial institutions issued green bonds, channelling capital toward renewable energy and clean technology projects.

Is it all hunky dory?

Continuing on the topic of green financing, the lack of a standard green taxonomy is surely a challenge. Regulatory delays and inconsistent policies dampen private sector enthusiasm.

Building a skilled workforce to support the green transition is crucial, and effective implementation of policies and regulations is essential to help the businesses as well as the communities through this transition.

Despite growth in renewables, coal still dominates the energy mix, supplying ~47% of the country's primary energy. Plans to increase coal production to meet burgeoning energy demand illustrate the tension between economic development and environmental objectives.

India's sustainability journey in 2024 has underscored its dual commitment to climate action and economic development. While challenges like coal dependency and infrastructure gaps persist, the synergy between government policies and private sector initiatives offers hope.