Startups To Giants: India Rides The AI Wave to Sustainability

TIMES NEWS NETWORK

India is fast becoming a global vanguard in marrying artificial intelligence (AI) with sustainable development. As the world faces mounting climate challenges, the country's businesses, ranging from IT behemoths to climate-tech start-ups, are weaving AI into the fabric of their green goals, making India one of the most AI-active nations in sustainability initiatives.

A striking 64% of Indian companies are now actively deploying AI to boost the impact of their sustainability efforts — the highest proportion among surveyed countries, according to IBM's 2024 sustainability readiness study. This isn't just a sign of technological enthusiasm, but of a maturing mindset that places environmental responsibility at the heart of corporate strategy.

India's journey is as much about economic transformation as it is about ecological conscience. In 2022–23, the digital economy accounted for nearly 12% of the national income, underlining the country's success in harnessing tech for green growth.

Take Infosys, for instance. The IT giant achieved carbon neutrality in 2020 — well ahead of global targets — by using AI and digital tools to drive energy efficiency, adopt renewables, and run offset projects that also benefit rural communities. The company was also the first Indian firm to join the RE100 initiative, committing to 100% renewable electricity.

But it's not just industry titans making waves. India's climate-tech ecosystem now boasts over 800 operational start-ups, which have collectively raised more than $3.6 billion between 2014 and 2024.

Among them is Alt Carbon, a venture leading the charge in carbon removal technologies. The company combines geochemical innovation, environmental data platforms, and scientific validation to sequester CO_2 through enhanced rock weathering and soil improve-ment on farmland. With its cutting-edge platform 'Atlas', Alt Carbon can monitor soil chemistry, water dynamics, and ecosystem health at high resolution, and aims to remove 5 million metric tons of CO_2 by 2030.

AI and other emerging technologies like IoT (internet of things), 5G, and blockchain are transforming how Indian enterprises think about sustainability. From resource-efficient smart grids to traceable, ethical supply chains and real-time emissions monitoring, digital tools are offering tangible solutions to previously intractable problems.

This momentum is also evident in platforms such as EY's ESG Compass, which supports businesses in navigating ESG (Environmental, Social & Governance) goals through data automation, risk analytics, and benchmarking tools. Such solutions are helping organisations make more informed, sustainable decisions while increasing transparency for stakeholders.

Yet, as PM Narendra Modi recently reminded the world at the AI Action Summit 2025, sustainable AI must not merely be powered by clean energy, but also be efficient by design—light on data, lean on compute power, and accessible to the broader developer community. "After all," he said, "the human brain can compose poetry and design spaceships while using less power than most light bulbs."

Indeed, while AI tools are proving their worth, there are pressing concerns that must be addressed — particularly around data privacy, interoperability, and ethical design. Most current sustainability-driven AI tools focus on energy emissions during training, often ignoring emissions during the deployment and inference phases. Moreover, many are tailored for highly skilled developers, limiting access for users relying on APIs or no-code platforms.

As The Times of India Social Impact Summit approaches, the conversation is expected to pivot around these very themes: how to scale tech-enabled ESG and CSR (Corporate Social Responsibility) efforts, ensure inclusive adoption, and drive measurable impact.

With diverse stakeholders converging, the summit presented by Malabar Gold & Diamonds — Ernst & Young is knowledge partner — aims to serve as a crucible for collaboration and future-ready sustainability solutions. It is being held on July 11 and 12, 2025, in Mumbai.

INDIA AT THE FOREFRONT

64% of surveyed Indian companies use AI for sustainability

Digital economy forms **11.7%** of India's national income ('22–23)

Key Enabling Tech

➤ **AI & Generative AI** | Climate modelling, emissions tracking, ESG reporting.

➤ **IoT & 5G** | Real-time resource monitoring & smart infra

➤ **Blockchain** | Transparent, traceable supply chains

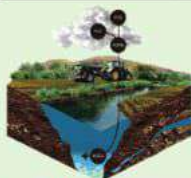➤ **Geospatial Data + AI** | Detecting land-use change, forest cover shifts

Case Study – Infosys

➤ Achieved carbon neutrality in 2020.

➤ First Indian firm in RE100 (100% renewable power pledge).

➤ AI used in energy efficiency, offsets, and solar adoption.

START-UP SPOTLIGHT

Focus | Scalable carbon removal via enhanced rock weathering

Building 'Atlas' | AI-powered environmental data platform

Goal | Remove 5 million metric tonne of CO^2 by 2030; onboard 30,000 acres by 2025.