

Editor's Note

Our policy is to review all books which are either sent to us or in our opinion are useful to our readers.

Book Review

EcoSphere March 2025 : Exploring Indian & Global Economies and Climate Change¹

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ECOSPHERE IS A monthly review providing insights into the Indian and Global economies, financial markets, and a digest of academic and policy research papers and articles which are designed to share information and ideas with professionals, researchers, and students and not intended as financial or investment advice.

As we enter a new era of global change, the March 2025 edition presents significant indicators of the trajectory of the Indian economy – and the world at large. This issue emphasizes a forward-thinking theme: 'the emergence of the Fourth Industrial Revolution (IR4) and the transformative potential of quantum technologies.' The Insight section thoroughly explores how advancements in quantum computing, sensing, communication, and materials are not merely technological wonders but also catalysts for economic growth. With targeted investments and cross-sector integration, India has a genuine opportunity to advance into the ranks of developed nations well ahead of 2047.

In the realm of macroeconomics, the Consumer Price Index (CPI) inflation decreased to 3.61% in February 2025, primarily due to a decline in food prices, particularly vegetables. Although core inflation slightly exceeded the 4% mark, the prevailing disinflationary trend is anticipated to impact the monetary policy of the Reserve Bank of India. Additionally, industrial indicators support this perspective, as the Index of Industrial Production (IIP) demonstrated a strong year-on-year growth of 5.0% in January. Despite a reduction in core sector growth to 2.9% in February, the overall industrial environment remains robust. This disparity between IIP and core sector performance highlights the intricacies of India's structural transformation, particularly in the energy and manufacturing sectors, which continue to require focused policy attention and innovation.

India's trade performance for the fiscal year 2024–25 presents significant insights. Total exports reached USD 750.53 billion, reflecting a year-on-year increase of 6.24%. However, this growth is largely driven by the services

1 Roy, Debesh and Bijetri Roy, "EcoSphere : Exploring Indian and Global Economies and Climate Change, March 2025", Vol 2, No 3, Institute for Pioneering Insightful Research Pvt. Ltd. (InsPIRE), Uttar Pradesh, India, pp 165, Price NIL

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sector, while merchandise exports have experienced only slight improvements. Additionally, the widening trade deficit, fueled by robust imports, highlights the urgent need for India to diversify its export portfolio and enhance its manufacturing competitiveness. The recent rise in U.S. trade protectionism, particularly following President Trump's extensive global tariffs announced on April 2, 2025, will further complicate India's external trade landscape, necessitating a prompt adjustment of its trade and investment policies.

The 2024 Time Use Survey has been thoroughly examined in this issue, highlighting significant structural disparities. A prominent gender gap continues to exist in economic participation, with women facing a disproportionate share of unpaid domestic and caregiving responsibilities. These essential yet unacknowledged contributions are often overlooked in traditional economic assessments. To foster inclusive growth in India, it is imperative for policymakers to rethink labor regulations, caregiving systems, and employment approaches to recognize and redistribute the burden of unpaid labor. This survey indicates that time may be the most underappreciated economic resource available to us.

This edition places significant emphasis on climate-smart agriculture (CSA), especially regarding the impact of satellite technology and remote sensing. Given that agriculture is both affected by and contributes to climate change, CSA is not merely a strategy but a critical necessity. Utilizing space technologies can empower farmers to make informed decisions, enhance productivity, and lower emissions. Additionally, it is crucial to develop a strong agri-tech ecosystem and expand extension services via public-private partnerships to guarantee that these advancements benefit the most remote farmers.

The financial markets concluded March with a positive outlook, achieving their most significant gains in half a year. This rally was fueled by foreign investments, enhanced macroeconomic indicators, and opportunistic buying. Nevertheless, as geopolitical tensions and protectionist challenges escalate particularly in light of the U.S. trade initiatives, investor sentiment continues to be precariously poised.

The international landscape, as outlined in the OECD Economic Outlook Interim Report for March 2025, is characterized by a gradual yet notable slowdown. Following a robust performance in 2024, growth is projected to ease to 3.1% in 2025. Increasing trade tensions, a decline in investment, and inflationary pressures are altering the global economic framework. The United States and China, although still pivotal drivers of global growth, are entering a period of moderation. Central banks, such as the U.S. Federal Reserve and the European Central Bank, are making careful adjustments – maintaining interest rates, indicating potential future reductions, and modifying balance sheet strategies – all indicative of the intricate balance between controlling inflation and fostering economic growth.

The implementation of extensive tariffs by President Trump, which includes auto tariffs and punitive duties on 60 nations with significant trade deficits with the United States, may represent a pivotal moment. Historical precedents suggest that such measures could incite retaliatory

actions and exacerbate global economic division. As we anticipate the complete effects of this decision, the April 2025 edition of EcoSphere will offer an in-depth examination of these changes and their consequences for India and the worldwide economy.

The first quarter of 2025 has unveiled a world undergoing transformation—geopolitical tensions continue, economic recoveries are inconsistent, and climate initiatives are being deprioritized. Nevertheless, amidst this instability, there are indications of advancement.

In 2024, India achieved a remarkable addition of 25.2 GW in solar capacity, representing a 203% increase compared to the previous year. Solar energy now constitutes 73% of all newly installed power capacity, highlighting the nation's rapid progress towards its green transition and energy security objectives. Conversely, global climate ambitions are diminishing, with the 1.5°C target likely to be exceeded, as projections indicate a potential warming of 1.9°C to 3.1°C by the end of the century. As extreme weather events escalate, there is a growing focus on geoengineering solutions, including solar radiation management and genetically modified crops that enhance carbon absorption.

Simultaneously, climate finance is undergoing transformation. Financial institutions are incorporating climate risk through exclusionary criteria, impact-focused portfolios, and strategies aligned with temperature goals. A study by the Bank for International Settlements (BIS) details these approaches, while a paper from the International Monetary Fund (IMF) indicates that credit risks associated with carbon pricing may be manageable under realistic conditions—providing reassurance to investors as they navigate the energy transition.

In a world marked by uncertainty, India's advancements present a beacon of hope. However, global efforts are insufficient. This decade calls for courageous leadership—not only to mitigate risks but also to cultivate a future that is sustainable, just, and secure. March 2025 represents both stability and transformation. India's economic fundamentals exhibit signs of recovery and resilience, yet structural issues—such as gender disparities, trade vulnerabilities, and environmental challenges—require immediate action. Most critically, the quantum revolution presents new opportunities to rethink productivity, innovation, and competitiveness. The decisions made by India today will influence whether it simply adapts to the post-quantum landscape or takes the lead in it.

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