

Unmasking the green mirage: Green growth opportunities and challenges in India's 2023-24 budget

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Economics: Green growth for a sustainable future

Green growth is an approach to economic development that focuses on sustainability and the efficient use of natural resources. By investing in renewable energy sources, sustainable infrastructure, and clean technologies, governments can reduce greenhouse gas emissions and promote economic growth. A transition to green growth can create job opportunities in sectors such as renewable energy, eco-tourism, and sustainable agriculture while reducing costs associated with pollution-related health problems (UNEP, 2011). In addition, a reliance on fossil fuels has led to volatile oil prices that jeopardize long-term economic stability. In contrast, green growth promotes energy security by diversifying energy sources and increasing efficiency (<https://www.oecd.org/greengrowth/greening-energy/greengrowthandenergy.htm> Accessed 25 March 2023). Therefore, a commitment to green growth can help grow economies sustainably by promoting innovation and long-term planning while improving public health and protecting the environment.

The importance of green growth in India's budget cannot be overstated. As a rapidly developing nation, India must address the growing concerns of climate change and environmental degradation. It is essential to include green growth in its annual budget to achieve sustainable development that simultaneously protects the environment. This can be in the form of increasing investment in renewable energy, promoting eco-friendly industries, and enforcing pollution control measures. Implementation of such measures not only stimulates economic growth but also enhances energy security, reduces dependence on fossil fuels, mitigates emissions, and improves public health by curbing air pollution (OECD,

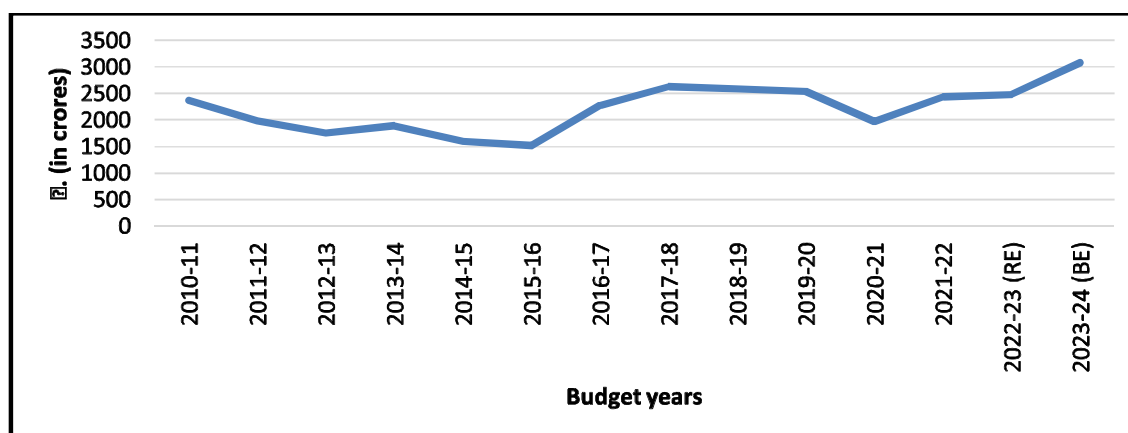
2011). Furthermore, it aligns with global efforts to tackle climate change and supports the country's pledge to reduce greenhouse gas emissions under the Paris Agreement¹. Thus, incorporating green growth strategies in India's annual budget is essential for achieving the Sustainable Development Goals (SDGs) while contributing towards environmental protection efforts globally.

What follows is divided into four sections. The next section explores India's endeavour toward green growth and details the measures adopted in this pursuit. Section 3 highlights the implementation of green growth strategies in various budget proposals for India's 2023-24 budget. Section 4 evaluates the constraints on green growth that have the potential to impede India's pursuit of sustainability, especially within the context of the other Budget proposals. The last section concludes the study.

India's green leap

Recent fiscal budgets in India have consistently emphasized a number of strategic measures, such as ethanol blending, *PM KUSUM Yojana*, incentives for solar manufacturing, rooftop solar initiatives, coal gasification, and battery storage have been consistently emphasized in recent fiscal budgets. Additional endeavours, including green credit for industrial sectors, *PM PRANAM Yojna* for agricultural communities, *Gobardhan Yojna* for rural areas, vehicle scrapping policies for urban centers, and Green Hydrogen and wetland conservation programs further contribute to achieving these objectives. It is also noteworthy that since 2014, India has demonstrated unparalleled progress in increasing renewable energy capacity among leading global economies. Reflecting this, Figure 1 below shows some recent rises in the budgetary allocations to the Ministry of Environment Forest and Climate Change (MoEFCC) after a dip in 2020-21.

¹ As per the Paris Agreement (a global agreement which seeks to limit global warming to well below 2° C, preferably to 1.5° C, compared to pre-industry levels), countries must pledge to make commitments to greenhouse gas (GHG) emissions reductions. These pledges are updated after every five years.

Figure 1: Union budget allocation to MoEFCC from 2010-11 to 2023-24

Source: Expenditure Budgets, Government of India (for various years)

The recently unveiled 2023-24 budget distinctly emphasizes the importance of green growth by embedding its principles across various components of the budget. Green growth stands as one of India's four potential transformative opportunities during the *Amrit Kaal* (auspicious period), the run-up to 2047, marking India's 100th year of independence. The remaining three transformative opportunities include the economic empowerment of women, the integration of traditional artisans within the micro, small and medium enterprises (MSME) sector, and the development of tourism. Within the budget's Seven Priorities or *Saptarishi*, green growth is strategically positioned as the fifth priority, underlining its importance in India's long-term vision of robust economic growth that is environmentally sustainable.

During the budget presentation, the finance minister emphasized the significance of the Prime Minister's vision for "LiFE" - Lifestyle for Environment, as a catalyst for promoting environmentally conscious living. Furthermore, she proclaimed that India as a nation is steadfastly progressing towards the goals of '*Panchamrit*'² and achieving net-zero carbon emissions by 2070, subsequently contributing to a sustainable industrial and economic transition.

² At the UN Climate Change Conference in Glasgow (COP26) in November 2021, Indian Prime Minister proposed a 'Panchamrit' of five goals (500 GW renewable energy capacity, 50% energy from non-fossil fuels, one billion tonne carbon emission reduction, bringing down carbon intensity of economy to 45%, all these by 2030, and moving to net zero emissions by 2070).

Envisioning green growth in budget proposals

Among this year's various budget proposals, several key initiatives stand out viz., Green Hydrogen Mission, Energy Transition and Storage Projects, Renewable Energy Evacuation, Green Credit Program, PM-PRANAM, GOBARdhan Scheme, Bhartiya Prakritik Kheti Bio-Input Resource Centres, MISHTI, Amrit Dharohar, Coastal Shipping and Vehicle Replacement.

The Rs.19,700 crore National Green Hydrogen Mission aims to facilitate a low-carbon economic transition, reduce dependence on fossil fuel imports and position India as a technology and market leader in this emerging sector. The goal is to achieve an annual production of 5 million metric tonnes by 2030.

The budget also earmarked Rs.35,000 crore for priority capital investments in energy transition, net zero objectives, and energy security under the Ministry of Petroleum & Natural Gas. In order to promote sustainable development, Battery Energy Storage Systems with a capacity of 4,000 MWh (megawatt-hour) will receive support through Viability Gap Funding to attract investor interest. A comprehensive framework for Pumped Storage Projects will also be established.

Additionally, Rs.20,700 crore inter-state transmission system will be constructed to evacuate and integrate 13 GW (giga watt) of renewable energy from Ladakh into the national grid. This project will receive central support of Rs.8,300 crore. Furthermore, a Green Credit Programme under the Environment (Protection) Act will be introduced to encourage environmentally sustainable actions by companies, individuals, and local bodies. This initiative will provide fiscal incentives and foster the government's LiFE programme, promoting a pro-planet and pro-people way of life while mobilizing additional resources for environmentally conscious activities.

Prime Minister's Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth (*PM- PRANAM*), has been designed to encourage states and Union Territories to promote alternative fertilizers and ensure a balanced utilization of chemical fertilizers. Under the auspices of the *GOBARdhan* scheme (Galvanizing Organic Bio-Agro Resources Dhan), there are plans to set up 500 new facilities that convert waste into valuable resources, fostering a circular economy. This initiative involves the development of 200 compressed biogas (CBG) plants and 300 community or cluster-based plants with an aggregate

investment of Rs.10,000 crore. In due course, a 5-percent CBG mandate shall be implemented across all entities marketing natural and biogas. Moreover, suitable fiscal support will be provided for biomass collection and bio-manure distribution.

Bharatiya Prakritik Kheti Bio-Input Resource Centres will help shift one crore farmers to natural farming with the help of 10,000 Bio-Input Resource Centres for the next three years. These centres will create a nationwide network for producing and distributing micro-fertilizers and pesticides. Additionally, the Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) will be implemented by planting mangroves in select areas along the coastline and on saltpan lands, by leveraging the Mahatma Gandhi National Rural Employment Guarantee Program (MGNREGP), Compensatory Afforestation Fund Management and Planning Authority (CAMPA Fund), and other funding sources.

The government aims to promote unique conservation values through the *Amrit Dharohar* (Auspicious legacy) scheme, which promotes optimal use of wetlands, enhances biodiversity and carbon stock, and provides eco-tourism opportunities and income generation for local communities. The scheme will be implemented over the next three years. It is worth noting that local communities have always been at the forefront of conservation efforts, and in his latest *Mann Ki Baat* (Inner Thoughts)³, the Prime Minister highlighted that there are now 75 Ramsar sites⁴ in the country - a significant increase from the 26 before 2014. Wetlands are vital ecosystems that sustain biological diversity. In addition, coastal shipping will be promoted as the energy-efficient and lower-cost mode of transport - both for passengers and freight - through the PPP mode with viability gap funding.

To reduce emissions, vehicle replacement initiatives will focus on scrapping old vehicles, allocating funds to replace obsolete government vehicles and supporting states to update their fleets. Green mobility measures, such as excise duty exemptions on blended compressed natural gas and customs duty exemptions for lithium-ion battery manufacturing equipment, serve to make electric vehicles more affordable for consumers. To further bolster the domestic battery manufacturing industry, the government must strategize towards acquiring critical minerals from abroad and enhancing domestic processing capabilities.

³ An All India Radio programme hosted by the Prime Minister every month (since 3 October 2014) in which he addresses the people of the nation.

⁴ A Ramsar site is a wetland site of international significance under the Ramsar Convention (the Convention on Wetlands), an intergovernmental environmental treaty, which was established on 2nd February 1971 in Ramsar, Iran by UNESCO and came into force from 21st December 1975.

The budget also recognizes other green growth priority areas. To help states and cities transition into 'sustainable cities of tomorrow', urban planning reforms will be encouraged. These include ensuring efficient use of land resources, adequate resources for urban infrastructure, and transit-oriented development, as well as increasing the availability and affordability of urban land and providing opportunities for all.

It was also proposed that three Artificial Intelligence (AI) centres will soon be established in top educational institutions, and will collaborate with leading industries for interdisciplinary research, developing cutting-edge solutions for agriculture, health, and sustainable cities. A stronger emphasis will be placed on the "scientific management of dry and wet waste," in addition to enabling the mechanical desludging of septic tanks and sewers in cities and municipalities to switch from "manhole to machine-hole mode." The Upper Bhadra project in the drought-prone central region of Karnataka will get central assistance of Rs 5300 crore to offer sustainable micro-irrigation and fill surface tanks for drinking water. The government will provide a Research and Development (R&D) grant to one of the IITs (Indian Institute of Technology) to promote the indigenous development and production of lab-grown diamonds since this emerging sector has high employment potential, eco-friendly properties, and similar characteristics as natural diamonds.

The budget allocation for green growth has increased for various ministries and missions. The Ministry of Environment, Forest and Climate Change received Rs.3,079.4 crore this year as against a revised estimate of Rs.2478 crore in the last budget and a separate budget of Rs.459 crore was allocated for the National Mission on Natural Farming. The budget for controlling pollution increased from a revised estimate of Rs.600 crore last year to Rs.756 crore in the latest budget. The Ministry of New and Renewable Energy received an increased budget of Rs.10,222 crore in the Union Budget 2023-24-an increase from the revised estimate of Rs.7,033 crore, to reduce reliance on fossil fuels. Furthermore, the budget for solar energy central sector schemes has increased from Rs.185 crore in the last fiscal to Rs.361 crore. Also, the solar power industry has received Rs.5331.5 crore in the current budget, as opposed to Rs.3365 crore in the last budget, including funds for both on-grid and off-grid projects (Table 1).

Table 1: Budgetary allocations of important ministries and missions

Ministry/ Mission	2022-23 (RE)	2023-24 (BE)
Ministry of Environment, Forest and Climate Change (MoEFCC)	Rs.2478 crore	Rs.3,079.4 crore
Ministry of New and Renewable Energy	Rs.7,033 crore	Rs.10, 222 crore
National Mission on Natural Farming	-	Rs.459 crore
Solar Energy Central Sector Schemes	Rs.185 crore	Rs.361 crore
Solar Power Industry	Rs.3365 crore	Rs.5331.5 crore
Pollution Control	Rs.600 crore	Rs.756 crore

Source: Expenditure budget (2023-24), Government of India

Assessing the green growth limitations

While the budget indeed possesses some commendable facets, unfortunately, not all of them align with the principles of green growth. For instance, the plan to construct an additional 50 airports, building heliports, water aerodromes, and advance landing grounds, will not contribute to this cause. Additionally, the budget identifies 100 "critical transport infrastructure projects" that will be prioritized to develop last- and first-mile connectivity for sectors such as ports, coal, steel, and fertilizers. To achieve this, the government has pledged to invest Rs. 75,000 crore, with Rs. 15,000 crore coming from private sources.

Despite the pressing need for action, crucial programmes such as the National Climate Change Action Plan, the National Adaptation Fund, and the National Mission on Himalayan Studies have been sorely neglected, with no budgetary allocations in sight. Shockingly, last year's budget earmarked a mere Rs.30 crore, Rs.60 crore, and Rs.48 crore for these vital initiatives - a sum that was grossly insufficient for the effective operation of these initiatives. The dire shortage of funds for the National Mission on Himalayan Studies is particularly concerning, given the alarming rates of land displacement in Himalayan hill towns, such as Joshimath. It is clear that without proper funding, our efforts to combat climate change and safeguard vulnerable communities will be severely hampered.

In addition to the aforesaid concerns, the Indian fiscal philosophy has unfortunately not hesitated to pat an ever-increasing fossil fuel consumption, the primary source of carbon dioxide; thus oil-marketing companies (OMCs) are set to be granted, as capital support, a

major boost of Rs.30,000 crore - which is nearly equivalent to Rs.35,000 crore in support for net zero and energy transition goals. Also, a sum of Rs.5000 crore will be set aside for strategic petroleum reserves under the Ministry of Petroleum and Natural Gas. As for enhancing the ease of doing business, over 39,000 compliances have been reduced while upwards of 3400 legal provisions have been decriminalised, albeit at the expense of environmental protections. Simplification of environmental law, while beneficial for businesses, risks weakening the safeguards put in place to protect the environment.

Another shocking strike from the 2023-24 Budget was the gradual 'blood bath' of the social welfare scheme, the Mahatma Gandhi National Rural Employment Guarantee Program (MGNREGP), a scheme with great potential for climate resilience and carbon sequestration. A recent study conducted by the Bengaluru-based Indian Institute of Science (IISc) has estimated that the scheme might have helped capture a total mass of carbon dioxide equivalent of 102 million tonnes in 2017-18 through the MGNREGP plantations and soil quality improvement works. It was also estimated that the programme could help India meet its target of creating an additional carbon sink to the extent of about 3 billion tonnes of carbon dioxide equivalent by 2030 through an improved forest and tree cover (<https://www.downtoearth.org.in/news/> Accessed 25 March 2023). Unfortunately, however, the Budget went on with a drastic cut on the allocation to the programme, the lowest in recent years (2021-22: Rs. 98,468 crore, 2022-23: Rs. 89,400 crore, and 2023-24: Rs. 60,000 crore).

It is also regrettable that the Economic Survey 2023 lacks a sufficient analysis of the current state of environmental degradation and its impact on various sectors of the economy. It is essential that the government take concrete steps in this direction to progressively combat the negative impacts of environmental degradation. Furthermore, the Climate Resilient Agriculture Initiative, a central sector scheme under the Ministry of Agriculture and Farmers' Welfare, has witnessed a significant drop in its allocation from Rs.40 crore last fiscal year to no budgetary allocation this year. This downgrading in funds is a worrisome sign, given the pressing need to promote and support sustainable agriculture practices to mitigate the impact of climate change on agriculture.

A glowing outlook with room to grow

The budget has painted for us a bright and hopeful vision of the future in terms of Green Growth, with special consideration for the growth of sustainable and environmentally

conscious practices. Also, with this planned fund utilisation, we can expect a significant increase in green projects that will positively impact our environment and communities. Despite these promising measures, much work remains to be done to ensure that the budget aligns with sustainable development and low-carbon growth. That being said, the government has yet to realise that preserving our environment is not a detractor from our economy but rather a driver of sustainable economic development. As we continue to face climate change and resource scarcity, the importance of green growth in our economic and social systems only becomes more apparent. In essence, embracing green growth is not just a moral obligation, but also a smart economic decision that promises a brighter and more sustainable future for all.

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