

Rethinking Growth in a Warming World: Sustainable Development Goals, Climate Policy and National Priorities

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Abstract: *The economy has always been considered one of the key pillars of national development and economic growth, higher production, industrialisation, infrastructure and consumption were considered as essential to improve the standard of living. But the speed of the climate change effects has made obvious the limits of the resource and carbon-intensive economic development models. The social and economic successes of more traditional development are under threat as the impacts of climate change – extreme weather events, biodiversity loss, water stress and economic disruption-grow more tangible with rising temperatures. The role of Sustainable Development Goals (SDGs) is in providing an integrated framework for balancing economic prosperity, social inclusion and environmental sustainability in this context. This article explores the need to reconsider traditional thinking about economic growth and climate change-focusing on the linkages between the SDGs, climate policy and national development priorities. It discusses the approaches to achieve Poverty Eradication, Job creation, Energy Security, Infrastructure Development, Climate Mitigation and Adaptation in the context of developing countries especially India. The article will also explore climate justice, sustainable finance, green growth, just transition and the structuring of legal and institutional frameworks for achieving sustainable development. It further suggests that we need to see climate action not as a limiting factor for economic development but rather as a chance to transform resources-intensive economic growth into economic growth that is resilient, resource efficient and inclusive. There is, therefore, a need to incorporate climate change into national planning in order to develop a growth model that ensures that future generations and those living in vulnerable areas can continue to enjoy developments.*

Keywords: Sustainable Development Goals, Climate Change, Economic Growth, Climate Policy, Sustainable Development, Climate Justice, Green Growth, National Priorities

1. Introduction

It is a fact that the growth of economy was one of the main pillars of the developments of a country. Generally, expansion has been linked to improvements in living standards and government's ability to provide public services, related to production, industrialisation, infrastructure, employment, investment and even consumption. Economic growth still goes hand in hand with poverty alleviation, employment creation, access to energy and the provision of basic infrastructure for developing countries, in particular. But the rapidly acting process of climate change has revealed major constraints on development models that are foaming at the mouth, based upon intensive use of resources, carbon based economic activity. Climate change now impacts food and water security, public health, livelihoods, built infrastructure as well as ecosystems and economic stability threatening some of the developmental progress through traditional economic growth. The Intergovernmental Panel on Climate Change ("IPCC") stresses the strong interlinkages between climate change, ecosystems and human societies, adaptation and mitigation and sustainable development. (IPCC, 2014)¹

Sustainable development has come to be a response to this seemingly paradoxical aspect of development. In 2015, the 2030 Agenda for Sustainable Development was adopted by the United Nations with 169 targets under seventeen

different Sustainable Development Goals ("SDGs"). This marks a decisive change from development seen only through economic results, and the way the Goals are stated – "indivisible and interdependent" – is a clear indication of the Agenda's shared vision of an economy, society and environment that are all integral to achieving sustainable development.² Hence, economic development under SDG framework is expected to be aligned with the social and environmental aspects.³ SDG 8 encourages sustained, inclusive and sustainable economic growth, SDG 12 is sustainable consumption and production and SDG 13 is climate action.

There are hard policy decisions that governments have to make, nonetheless, regarding climate change. There is a need to pursue measures to fight and reduce poverty, unemployment and lack of infrastructure, as well as energy demand, alongside the need to reduce greenhouse gas emissions and adapt to a growing climate risk in countries. It is especially important for the action references of developing countries, where the financial and technological means available to the country may be relatively small, yet developmental needs relatively large. The 2030 Agenda is sensitive to different national realities, capacities and levels of development, and to a new kind of transformative action for achieving a sustainable and resilient future.⁴

¹ Intergovernmental Panel on Climate Change, Climate Change 2023: Synthesis Report, at 3 (2023), <https://www.ipcc.ch/report/ar6/syr/>.

² G.A. Res. 70/1, Transforming Our World: The 2030 Agenda for Sustainable Development

(Sept. 25, 2015), <https://sdgs.un.org/2030agenda>

³ Id. Goals 8, 12 & 13.

⁴ Id. 5, 14.

Thus, the relationship between growth and climate protection should not be seen merely as a clash between growth and climate protection. There are policy options to combine mitigation, adaptation and sustainable development, which can lead to socio-economic benefits and lessen climate risks, without having to sacrifice the benefits of mitigation.⁵ Renewable energy, energy efficiency, resilient infrastructure, sustainable agriculture, public transportation, resource-efficient production all have the potential to provide economic and social benefits and lessen climate risks without sacrificing mitigation benefits.

It is an important matter for India especially. India has to grapple with two challenges: maintaining economic progress and coping with climate change. Its updated Nationally Determined Contribution ("NDC") includes a commitment to reduce the emissions intensity of its GDP by 45% from 2005 levels by 2030 and to achieve about 50% cumulative installed electric power capacity from non-fossil-fuel sources by 2030.⁶ India has also adopted a long-term goal of reaching net-zero emissions by 2070.⁷ These commitments illustrate how climate policy is increasingly being integrated with national development planning rather than treated exclusively as an environmental concern.

Thus, a wider understanding of national progress is needed to rethink growth in a warming world. Alongside economic expansion more weight needs to be given to its environmental intensity, the distribution of the fruits of growth, and long-term sustainability. It's not a question of whether or not development must go on, but rather a question of how development can create prosperity while maintaining ecological conditions for current and future generations. This needs an increased engagement of climate protection with economic planning, public investments, energy policy, infrastructure development and social policy. It also calls attention to the matter of equity, as benefits of economic growth and damages of climate change are not distributed equally. Sustainable development therefore requires change from growth defined simply in terms of growth in economic activity towards growth that is inclusive, resilient, resources efficient and compatible with ecological sustainability.

2. Growth, Sustainable Development Goals and Climate Policy

Traditionally, the measurement of economic growth is achieved via GDP, industrial production, investment and consumption. While these indicators are useful, they fail to capture the whole of environmental degradation or resource

depletion, inequality and climate vulnerability. The issue in a warming world is thus not to rule-out growth, especially in developing countries, but to rethink economic growth and the long-term sustainability of its benefits.

In 2015, the United Nations adopted the SDG 2030 Agenda for Sustainable Development, which offers an integrated framework linking economic development, social inclusion and environmental protection.⁸ Sustainable consumption and production (SDG 12) and urgent action on climate change (SDG 13) are required.⁹

Changes in climate have a nearly all-encompassing impact on sustainable development. Climate change, including escalating temperatures, extreme events and drought and floods, can threaten food security, health, livelihoods, infrastructure and poverty reduction. The IPCC has thus stressed the importance of linking climate change, adaptation, mitigation and sustainable development.¹⁰

The fixation on environmental aspects must therefore not only be included in the climate policy. Sustainable transport, resilient infrastructure and agriculture can do their share to reduce emissions and stimulate economy. Climate resilient development is an approach towards mainstreaming adaptation and mitigation into more general development goals.¹¹

The Paris Agreement offers the universal international green light for national climate action and leaves space for SDGs to be set nationally, with gradually ramping up SDGs.¹²

There are economic and social trade-offs, however, that can be part of climate action. Seeking a turn away from carbon intensive industries can impact workforce and communities, and adaptation and resilient infrastructure has high costs. The climate policy should thus be integrated in local economic planning instead of coping with it as environmental policy. Ultimately, growth is sustainable only if it is achieved through increasingly resource efficient and socially inclusive growth which is more resilient to climate risk.

3. India's Approach: Growth, Climate Policy and Climate Justice

This is evident in India's climate policy, which is tackling the challenge of economic development in the face of growing climate risks. Creating jobs, tackling poverty, infrastructure creation, cheap energy and industrialisation are still national priority issues. Meanwhile, India is also witnessing heat waves, floods, water stress and droughts, misleading rainfalls. Thus, climate policy is a key component of India's development agenda.

⁵ Intergovernmental Panel on Climate Change, Climate Change 2022: Impacts, Adaptation and Vulnerability, ch. 1, § 1.5.3 (2022) (defining climate-resilient development as integrating mitigation and adaptation to support sustainable development).

⁶ Government of India, India's Updated First Nationally Determined Contribution Under Paris Agreement (2022), U.N. Framework Convention on Climate Change, <https://unfccc.int/NDCREG>.

⁷ Government of India, India's Long-Term Low-Carbon Development Strategy (2022), U.N. Framework Convention on Climate Change.

⁸ G.A. Res. 70/1, Transforming Our World: The 2030 Agenda for Sustainable Development (Sept. 25, 2015).

⁹ Id. Goal 8, Target 8.4.

¹⁰ Intergovernmental Panel on Climate Change, Climate Change 2023: Synthesis Report 4–8 (2023).

¹¹ Intergovernmental Panel on Climate Change, Climate Change 2022: Impacts, Adaptation and Vulnerability, ch. 18 (2022).

¹² Paris Agreement arts. 3–4, Dec. 12, 2015, T.I.A.S. No. 16-1104.

India's National Action Plan on Climate Change (NAPCC, 2008) set a framework of eight national missions including areas like energy efficiency, solar energy, sustainable agriculture and forest protection, sustainable habitat, water, etc. that aim towards climate mitigation and adaptation in conjunction with development planning.¹³

India strengthened its international climate endeavors too. Under its updated NDC 2022, India is also set to bring the emissions intensity of GDP down by 45% from the 2005 level by 2030, while ensuring around 50% of cumulative installed electric power capacity comes from non-fossil fuel-based sources by 2030.¹⁴ India has also pledged to become a net-zero economy by 2070.¹⁵

India had, in April 2026, submitted an NDC for 2031-2035. These commitments show the ongoing evolution of India's climate policy a target of reducing emissions intensity to 47% below 2005 levels by 2035, and increasing cumulative installed non-fossil energy power capacity to 60% by 2035.¹⁶

Energy security, energy efficiency, economic development, technology and equity are all key priorities in India's Long-Term Low-Carbon Development Strategy, but so is energy affordability, employment and reliable energy access.¹⁷ Renewable energy and energy efficiency can help facilitate this, but policy needs to focus on energy affordability, employment and reliable energy access as well.

Climate justice is relevant to the Indian context in particular. Common but Differentiated Responsibilities and Respective Capabilities ("CBDR-RC") aspect has been consistently stressed by India, which recognises differential historical responsibility and national capabilities.¹⁸ Climate justice also has a domestic dimension since vulnerable population may be exposed to a higher risk to heat, floods, drought and livelihood disruption.

The Indian strategy thus needs to strike a balance between growth, climate action and justice. Economic growth is linked to renewable energy, resilience related to infrastructure development and sustainable transport and climate smart agriculture for reducing environmental risks. Meanwhile, those communities and workers affected by the transition need the right social and economic supports. The Indian experience also shows that climate policy does best when it is aligned and synced with national development priorities and not as a standalone environmental issue.

¹³ Ministry of Environment, Forest & Climate Change, Government of India, National Action Plan on Climate Change (2008).

¹⁴ Government of India, India's Updated First Nationally Determined Contribution Under Paris Agreement (2022), U.N. Framework Convention on Climate Change.

¹⁵ Government of India, India's Long-Term Low-Carbon Development Strategy (2022).

¹⁶ India NDC (2031–2035), U.N. Framework Convention on Climate Change (Apr. 24, 2026).

¹⁷ Government of India, India's Long-Term Low-Carbon Development Strategy, *supra* note 9.

¹⁸ United Nations Framework Convention on Climate Change art. 3(1), May 9, 1992, 1771 U.N.T.S. 107.

4. Challenges, Way Forward and Conclusion

Growing sustainable and climate-proof is challenging on the economic, legal, technological, and social front. A key challenge is striking the balance between immediate development needs and future climate goals. But the developing world cannot wait for jobs, industrialisation, infrastructure, or cheap energy and climate policy and it can also take many years to have an impact. The challenge is thus that the climate action is not a burden for the weak economies, but rather one that supports development.

The second challenge is in the financial and technological areas. Switching to renewables, building resilience, creating a cleaner transport system and making resource use more efficient demands significant capital, technology. The ability to mobilise adequate domestic resources and access to international climate funding and technology may be challenging in developing countries. The Paris Agreement reflects the need for the financial flows, technology development and capacity building that will help developing countries.

The other challenge is on the distributional consequences of the energy transition. Employment and income losses for workers and communities which rely on carbon intensive industries. Energy and transport policies that intensify the financial burden on low-income families can also have a disproportionate impact on low-income families. There is therefore a need for social protection, skill development, employment opportunities and appropriate economic diversification in order to have a sustainable transition. This is why the notion of a just transition matters when it comes to climate action and not exacerbating the existing inequalities.

The fragmentation of institutions is another challenge. Often climate, energy, transport and agriculture are governed by separate policies and institutions and industry and urban development as well. Weak implementation and conflicting objectives can result from lack of coordination. Therefore, it is important to work on a whole of Government approach; where development planning, budgeting and infrastructure projects start to consider climate.

A step-by-step modification of national development modes needs to be realized to move forward. There is a need to encourage the use of renewable energies, energy efficiency, sustainable transport, climate-proof infrastructure and circular use of materials. Public investments need to increasingly focus on both economic returns and long-term climate risks. Incorporating climate aspects should also be part of financial regulation, of industrial policy and of urban planning.

Cooperation abroad is still of critical importance. Cooperation on climate finance, technology transfer and capacity-building is a must since the different countries have different capacities and historical situation. International Climate Governance is about the principle of "Common but Differentiated Responsibilities and Respective Capabilities" ("CBDR-RC").

GDP is not a sufficient measure of national progress. Emissions intensity, resource efficiency, inequality, environmental quality, health and climate resilience indicators can be used to better understand sustainable development. SDGs are already an international framework for measurement of progress in all the economic, social and environmental aspects.

5. Conclusion

A rethinking of growth in a warming world need not be a trade-off between economic development and environmental care. Instead, it needs the way development is defined to be changed so that the economic life can be enhanced in terms of improving the well-being of people and still be consistent with the sustainability of nature. The SDGs offer a valuable compass on how to do this integration and climate policy offers the mechanisms by which countries can reduce emissions and deal with the impacts of climate change that they will inevitably face.

In developing countries like India this challenge is even more complicated since the action on climate change has to go hand in hand with poverty alleviation, employment and energy security and infrastructure construction. Through their changing climate pledges, India is trying to balance these goals and long-term decarbonisation.

Finally, sustainable growth needs to be achieved through transition to resource-light development, inclusive with resilient and climate-compatible prosperity. Learning, implementing and transferring this change will require strong institutions, sufficient funding, innovation in technology and social protection and effective international partnerships. Economic growth will continue to be a key consideration, but its effectiveness should increasingly be judged by its impact on enhancing human well-being, vulnerability and environmental bases on which future generations must rely.

References

- [1] United Nations Framework Convention on Climate Change, **United Nations Framework Convention on Climate Change**, May 9, 1992, 1771 U.N.T.S. 107.
- [2] Paris Agreement, Dec. 12, 2015, T.I.A.S. No. 16-1104.
- [3] G.A. Res. 70/1, **Transforming Our World: The 2030 Agenda for Sustainable Development** (Sept. 25, 2015).
- [4] United Nations, **Sustainable Development Goals**, United Nations Department of Economic and Social Affairs.
- A. International Reports and Institutional Sources**
- [5] Intergovernmental Panel on Climate Change, **Climate Change 2023: Synthesis Report** (2023).
- [6] Intergovernmental Panel on Climate Change, **Climate Change 2022: Impacts, Adaptation and Vulnerability** (2022).
- [7] Intergovernmental Panel on Climate Change, **Climate Change 2022: Mitigation of Climate Change** (2022).
- [8] Intergovernmental Panel on Climate Change, **Climate Change 2021: The Physical Science Basis** (2021).

B. Indian Government Documents

- [9] Ministry of Environment, Forest and Climate Change, Government of India, **National Action Plan on Climate Change** (2008).
- [10] Government of India, **India's Updated First Nationally Determined Contribution Under Paris Agreement** (2022).
- [11] Government of India, **India's Long-Term Low-Carbon Development Strategy** (2022).
- [12] Ministry of Environment, Forest and Climate Change, Government of India, **India State of Forest Report 2023** (Forest Survey of India 2023).
- [13] Ministry of Environment, Forest and Climate Change, Government of India, **India's Third National Communication to the United Nations Framework Convention on Climate Change** (2023).

C. Books

- [14] Herman E. Daly, **Beyond Growth: The Economics of Sustainable Development** (Beacon Press 1996).
- [15] Nicholas Stern, **The Economics of Climate Change: The Stern Review** (Cambridge Univ. Press 2007).
- [16] Jeffrey D. Sachs, **The Age of Sustainable Development** (Columbia Univ. Press 2015).
- [17] Amartya Sen, **Development as Freedom** (Oxford Univ. Press 1999).
- [18] Kate Raworth, **Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist** (Chelsea Green Publishing 2017).

D. Research Articles

- [19] Nicholas Stern, The Economics of Climate Change, **1 Am. Econ. Rev.** **1** (2008).
- [20] Robert B. Howarth, Climate Change, Economic Growth and the Welfare of Future Generations, **32 Energy Pol'y** **1139** (2004).
- [21] David I. Stern, The Rise and Fall of the Environmental Kuznets Curve, **32 World Dev.** **1419** (2004).
- [22] Paul Ekins, Economic Growth and Environmental Sustainability: The Prospects for Green Growth, **23 J. Envtl. Econ. & Mgmt.** **1** (1992).
- [23] John H. D. Jensen & John F. Christensen, Green Growth and Sustainable Development: Concepts, Evidence and Policy Implications, **47 Ecological Econ.** **1** (2010).

E. Online Sources

- [24] United Nations, **Sustainable Development Goals**, <https://www.un.org/sustainabledevelopment/development-goals/>.
- [25] United Nations Department of Economic and Social Affairs, **Sustainable Development Goals**, <https://sdgs.un.org/goals>.
- [26] Intergovernmental Panel on Climate Change, **Reports**, <https://www.ipcc.ch/reports/>.
- [27] United Nations Framework Convention on Climate Change, **Paris Agreement**, <https://unfccc.int/process-and-meetings/the-paris-agreement>.
- [28] United Nations Framework Convention on Climate Change, **Nationally Determined Contributions Registry**, <https://unfccc.int/NDCREG>.
- [29] Ministry of Environment, Forest and Climate Change, Government of India, **Climate Change**,

<https://moef.gov.in/>.

- [30] NITI Aayog, Government of India, **Sustainable Development Goals**, <https://www.niti.gov.in/>.
- [31] Ministry of New and Renewable Energy, Government of India, **Renewable Energy**, <https://mnre.gov.in/>.
- [32] United Nations Environment Programme, **Climate Action**, <https://www.unep.org/explore-topics/climate-action>.