



Analysis of Policy Initiatives of Indian Government Towards Carbon Neutral Economy: Sustainable Development Goals

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ABSTRACT

In recent years, there has been a significant surge in global carbon emissions, emphasizing the critical necessity for proactive measures to address environmental hazards. This paper aims to provide an overview of India's determined efforts towards achieving a carbon-neutral economy. Through a descriptive methodology utilizing secondary data, the article comprehensively reviews various policy initiatives undertaken by the Indian government. It also evaluates the nation's stance on renewable energy adoption, emphasizing its alignment with the United Nations Sustainable Development Goals (UNSDG). The analysis affirms the commendable strides taken by the Indian government, underscoring its commitment to a carbon-neutral future and adherence to UNSDGs.

Keywords: Carbon credits; Carbon neutral economy; Policy initiatives; Renewable energy; Sustainable development goals.

1. INTRODUCTION

India is the 3rd largest emitter of carbon just after China and America. Amongst the different sectors, power and heat account for the largest share of Green House Gas (GHG) emissions which sums nearly to 35% of total emissions made by the country. The per capita carbon emission of India stands to be 1.91 metric tons as of 2022 which draws the concern of people and government towards a carbon-neutral economy and even net zero in the long run. If we accumulate the carbon till now emitted by the country, the data will sum up nearly 57.11 billion tons as of 2021.

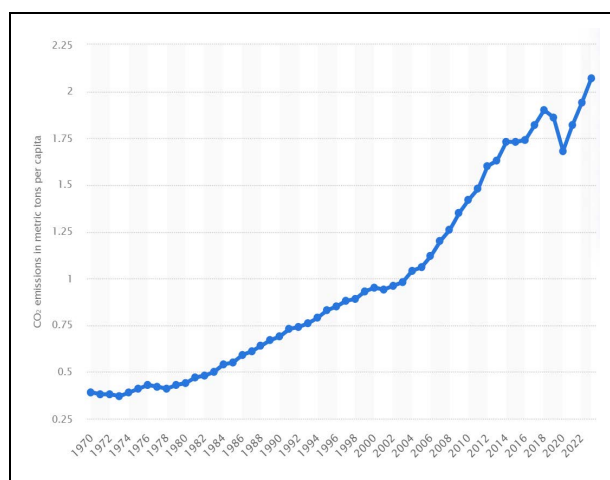


Fig 1: Per capita carbon dioxide (CO₂) emissions from fossil fuels in India from 1970 to 2022

As depicted by figure 1, India has witnessed a significant surge in per capita carbon dioxide (CO₂) emissions over the past few decades, escalating from 0.39 metric tons in 1970 to a peak of 1.91 metric tons in 2022. This marked an increase of 5.5% compared to the levels recorded in 2021. Additionally, the total CO₂ emissions in India reached an all-time high in the year 2022. While the situation of global warming is being generated due to increasing carbon emissions, there is a need to take many measures to control it. Mitigating carbon emissions proves challenging due to their integral role in vital industries and transportation. In addressing this issue, the focus is on promoting carbon neutrality to minimize the overall impact of emissions.

According to the European Parliament, carbon neutrality is realized when an equilibrium is established between the emission of carbon dioxide (CO₂) into the atmosphere and its removal through diverse mechanisms, culminating in a state of net-zero balance. Since India is part of the Paris Agreement which aims to take some concrete steps towards the increasing concern of climate change, it becomes necessary for the nation and government to move towards a carbon-neutral economy.

Transitioning to a carbon-neutral economy offers a myriad of benefits. Firstly, it promises a reduction in environmental pollution, thereby promoting better health outcomes. Secondly, carbon neutrality is envisioned to propel sustainable economic growth, fostering job opportunities that align with environmental considerations. Thirdly, mitigating the impacts of climate

change is anticipated to enhance food security. Moreover, halting biodiversity loss holds the potential to ameliorate conditions in the oceans. Additionally, there is a growing corporate impetus towards decarbonization and offsetting residual environmental impacts. Lastly, the pursuit of carbon neutrality aligns with the trend of green marketing, enhancing a company's eco-friendly image and conferring a competitive advantage as a socially responsible brand.

1.1 Sustainable Development Goals (SDGs)

Sustainable development strives to meet current needs without compromising the well-being of future generations, balancing economic, social, and environmental considerations. It aims to address immediate challenges while preserving resources and opportunities for the future (Fig. 2 and Table 1).



Fig. 2: Sustainable development goals

The 2030 Agenda for Sustainable Development embraced by the United Nations in the year 2015 entails a list of 17 goals. Out of which the following goals are emphasizing on the use of renewable energy and decline hazards caused to the climate and environment.

Table 1. Sustainable development goals

Goal No.	SDG
7	Affordable and clean energy
9	Industry, Innovation, and Infrastructure
11	Sustainable cities and Communities
13	Climate Act

Press Information Bureau (PIB) states that, India ranks 8th position in the Climate Change Performance Index being the only country amongst the G20 members. This underlines the tireless efforts of the country towards the fulfillment of its commitment to making a greener, cleaner, and healthier tomorrow. The Indian government has a clear roadmap to achieve carbon neutrality goals. The Indian leaders are making notable steps towards increasing their focus on renewable energy such as, the National Action Plan on Climate Change (NAPCC) issued by the Prime Minister of India in the year 2008 through which India addresses climate change

by its “8th National Missions”. Also, the country is an affiliate of the International Solar Alliance (ISA) which will facilitate India with solar technology transfer and channel the country's investment towards solar projects.

The principle of “RE-USE” is evident in the generation of a circular economy that focuses on reducing carbon footprints. The Union Budget of 2023 proposes the provision of Carbon Credit on any investment made in Carbon Capture, Utilization, and Storage (CCUS) projects. According to Malhotra *et al.* (2022) the Government of India has undertaken various policy measures to control its GHG emissions by 2030 as an intrinsic part of its Intended Nationally Determined Contributions (INDC) commitment after the UNFCCC Paris Agreement 2015. These strategies include reducing the GHG intensity of GDP by 33-35% by 2030 from 2005 by intensifying the share of renewables by 40% in installed capacity with the help of technology transfer, forming a green climate fund, and aiming for additional carbon sink of 2.5-3 billion tons of CO₂ equivalent with the aid of afforestation and plantation of trees. According to Rej and Nag, (2022) the Indian government is committed to balancing economic growth with environmental sustainability as part of the Paris Agreement and achieving net-zero emissions in the second half of the century.

The government disburses up to 8% of the GDP on social sector schemes to meet development objectives echoing the SDGs. The government is making commendable strides towards carbon neutrality, but concurrently, it encounters challenges in this pursuit. Arogyaswamy and Koziol (2022) highlights the obstacles and alternates for China and India to curb their dependence on coal and achieve carbon neutrality, which is climacteric for a net zero carbon world. It gauges the contribution of political, economic, and social factors in determining the outputs of the plans and policies framed to help achieve progressive decarbonization. Lakshmanan *et al.* (2017) affirms that India's pace and climate-resilient strategies will ensure the achievement of its nationally determined contributions towards climate change and will set the benchmark for world. Also, India has registered 1593 projects under the Clean Development Mechanism (CDM) of UNFCCC. The initiatives of the Indian Government show its strong commitment for fighting climate change issues.

In this study, a comprehensive literature review was conducted to analyze various policy measures implemented by the Indian government in its pursuit of achieving a carbon-neutral economy. Also, the paper entails an analysis of these policies, assessing their impacts, and gauging their adherence to the SDGs. This paper focuses on four out of the 17 SDGs outlined by the UN. Our analysis relies on credible secondary data from reputable publications, academic journals, and esteemed online news platforms. Drawing insights from the

literature review, this paper aims to provide an overview of India's policy initiatives towards achieving a carbon-neutral economy. Furthermore, we will assess the country's stance on adopting renewable energy and its alignment with the SDGs.

2. STEPS BY INDIAN GOVERNMENT TOWARDS ACHIEVING CARBON-NEUTRAL ECONOMY

Presently, climate change has emerged as a global problem, prompting nations worldwide to craft eco-conscious policy frameworks and enact measures to address this pressing issue. India is actively engaged in endeavors to diminish GHG emissions as part of its commitment to combat climate change (Fig. 3). The promotion of afforestation initiatives not only serves to mitigate the release of GHG but also aims to absorb and counterbalance emitted pollutants. India is promoting renewable energy, especially solar and wind energy.

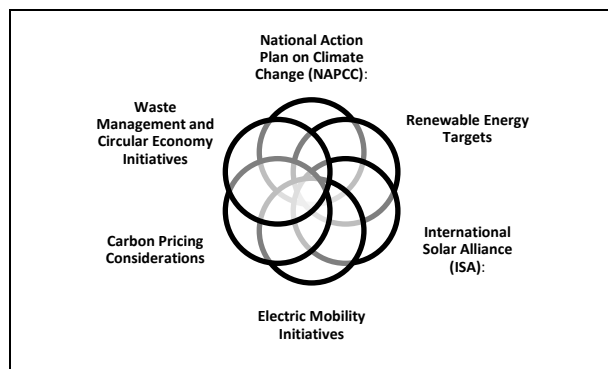


Fig. 3: Various initiatives by Indian Government towards carbon neutrality

India is intensively engaged in research endeavors to explore a spectrum of clean fuels and sustainable alternatives to fossil fuels, reflecting a forward-thinking approach to diversify its energy portfolio and create a more sustainable energy landscape for the future. India is taking various steps for carbon-neutral economy and promoting renewable energy; some of the main steps are as follows.

2.1 National Action Plan on Climate Change (NAPCC)

The National Action Plan on Climate Change (NAPCC) was initiated by the Prime Minister on June 30, 2008, encompassing a multifaceted approach with eight distinct initiatives. These pivotal initiatives were strategically designed to address various facets of climate change and sustainable development. The National Solar Mission, a central pillar, seeks to revolutionize India's solar energy landscape, fostering solar power generation and deployment on a grand scale. Additionally, the National Mission for Enhanced Energy Efficiency endeavours to augment energy efficiency across sectors,

while the National Mission on Sustainable Habitat emphasizes sustainable urban development. Further, vital components include the National Water Mission, which focuses on efficient water use and management, and the National Mission for Sustaining the Himalayan Ecosystem, aimed at preserving and safeguarding the Himalayan region. Additionally, the National Mission for Green India emphasizes afforestation and biodiversity conservation, while the National Mission for Sustainable Agriculture seeks sustainable practices in the agricultural sector. Lastly, the National Mission on Strategic Knowledge for Climate Change aims to generate and leverage climate-related knowledge and insights to inform policy and action, thus comprehensively addressing climate change challenges in India.

2.2 Renewable Energy Targets

The Indian government is actively advocating the adoption of renewable energy resources, with a primary focus on solar and wind energy. A formidable objective has been set, aiming to generate 175 gigawatts (GW) of renewable energy by 2022 and an ambitious target of 450 GW by 2030. This resolute commitment underscores India's dedication to advancing sustainable energy practices on a substantial scale. As per Ministry of New and Renewable Energy, solar energy is a main source of energy in India; India receives 5000 trillion kWh of energy annually from its land area. Most areas receive 4-7 kWh of energy per square meter per day, making solar photovoltaic power highly scalable within the country. Solar energy not only provides an opportunity to generate electricity but also provides rapid expansion of energy in a short period. Under India's National Solar Energy Mission, a formidable initiative has been launched with the goal of installing 100 GW of grid-connected solar power plants by the year 2022 (Fig. 4).

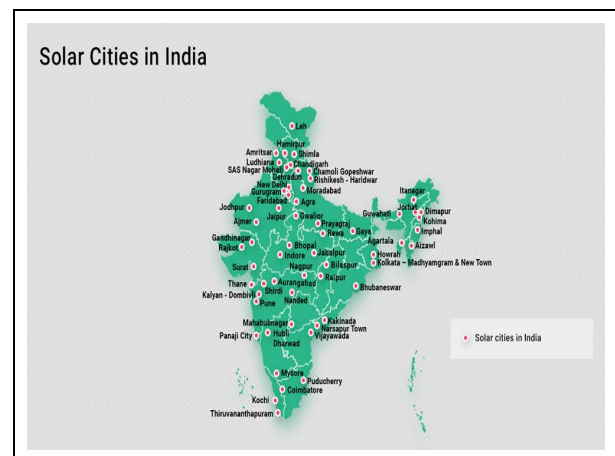


Fig. 4: Solar cities in India

This ambitious endeavor underscores a commitment to rapidly expanding the capacity for solar

energy production within the specified time frame so that non-fossil fuel-based energy resources can be promoted. To promote solar energy, solar park scheme and grid connected solar rooftop scheme have also been started. India has set a determined target to reduce carbon emissions by more than 45% by the end of the current decade. The principal plan includes attaining 50% of the total electricity generation from renewable sources by 2030, with the ultimate aim of achieving net-zero carbon emissions by 2070. In tandem, there is a concerted effort to generate an impressive 500 GW of renewable energy and produce 5 million tonnes of green hydrogen by the year 2030. This multifaceted approach reflects India's commitment to comprehensive environmental sustainability goals.

2.3 International Solar Alliance (ISA)

The International Solar Alliance (ISA) is a recent endeavor inaugurated during the 2015 Paris Climate Summit through a coordinated initiative between India and France. As the pioneering global institution placed its headquarters in India, ISA's primary objective is to advocate for solar power utilization across regions predominantly positioned between the Tropic of Cancer and the Tropic of Capricorn, known as the Sunshine Belt (Shidore and Busby, 2019). The International Solar Alliance aims to mobilize investments worth US\$1 trillion in solar projects by 2030. The said investment will create 1000 GW of fresh solar facility and enhance energy accessibility for 1 billion people. Through the above efforts, carbon emissions have to be reduced by 1 billion tons by the year 2030. The ISA has adopted a strategic approach by pinpointing three key areas for a carbon-neutral future; its three focus areas include analytics and advocacy, capacity building, and pragmatic support. India is committed to reaching its solar energy potential and advancing sustainable development through a range of strategies. These strategies encompass initiatives like the National Solar Mission, with the objective of achieving 100 GWs of solar power by 2022, and the ISA, which seeks to boost solar power utilization and diminish the cost of solar power generation. Furthermore, India is emphasizing rural electrification and the establishment of new large-scale power projects to work towards universal energy accessibility. India is resolute in increasing the proportion of renewable sources in its overall energy portfolio while decreasing reliance on fossil fuels (Rajawat, 2019).

2.4 Electric Mobility Initiatives

According to Mahal and Patil, (2021) the Indian government is actively promoting electric vehicle (EV) manufacturing and adoption through initiatives like the National Electric Mobility Mission Plan 2020. The government's ambitious target is to make India a fully electric vehicle nation by 2030, offering tax exemptions to personal EV owners and converting all government

buses to electric. Public procurement of EVs, including retrofitting conventional vehicles, is a key strategy to drive EV growth and reduce the carbon footprint of the transport sector which is a major CO₂ emitter in India. Introduced in 2011 as a facet of the National Mission on Electric Mobility, Faster Adoption and Manufacturing of Electric and Hybrid vehicles (FAME), is a governmental initiative designed to incentivize and propel the uptake of electric and hybrid vehicles within the country. This strategic move aligns with the broader goal of fostering a circular economy, a framework that, when applied to sectors like construction, industry, and transportation, possesses the potential to curtail GHG emissions by diminishing both the carbon and material footprint. Such circular economy strategies not only serve to address the adverse effects of climate change but also contribute to diminishing the nation's reliance on fossil fuels. Under this scheme, an effort has been made to provide incentives to manufacturers and buyers of electric and hybrid vehicles. Under this FAME scheme, work has been done to move towards the goal and achieve the target in various phases.

2.5 Carbon Pricing Consideration

Carbon pricing is an economic tool through which industries, households, and governments are motivated to reduce carbon emissions and invest in clean energy. Carbon pricing is a cost imposed on the carbon emitted by an industry or a price set for emissions. Similarly, the carbon tax is a price that is imposed by the government on polluters for the emission of one metric ton of carbon dioxide. Carbon trading is a market-based approach under which emitters trade their assigned quota of emission limits units.

The Carbon Credit Trading Scheme 2023, introduced by the Ministry of Power, aims to create a domestic market to track carbon credits and trade these credits. This policy is the right step towards compliance and establishment of the Indian carbon market. Apart from the Carbon Credit Trading System, the Government of India has introduced the Draft Green Credit Program Implementation Rules 2023. Under this green credit program, the focus is to be expanded from greenhouse emissions or reduction to tree plantation, water conservation, and sustainable agriculture.

2.6 Waste Management and Circular Economy Initiatives

As per India Brand Equity Foundation, unlike the take-make-dispose economy, circular economy is a concept under which resources are restored and regenerated and reused. The concepts of recycle, reuse, repair, and recycle are used under the circular economy. To become a low-carbon country, India must emphasize the implementation of the circular economy. The Indian government is doing excellent work in the areas of waste

management and circular economy. The government has created policies for managing plastic waste, managing e-waste, and recycling metals to promote sustainable economic growth.

According to Bherwani *et al.* (2022) circular economy strategies can help reduce greenhouse gas emissions by lowering the carbon and material footprint of various sectors such as, construction, industry, and transportation. During its G-20 presidency, India has ardently championed four pivotal facets of the circular economy: namely, the steel industry, extended producer responsibility (EPR), the circular economy itself, and the establishment of an industry-driven coalition dedicated to resource efficiency and circular economy principles. The anticipated dividends for India encompass the generation of green employment opportunities, the mitigation of climate change impacts, heightened resource efficiency, and a concurrent reduction in reliance on fossil fuels, all stemming from the embrace of circular economy practices.

3.RENEWABLE ENERGY AND SUSTAINABLE DEVELOPMENT GOALS IN INDIAN PERSPECTIVE

Renewable energy is vital for India to meet its sustainable development goals, aligning with the country's dedication to sustainable energy and addressing climate issues. The Indian government acknowledges the significance of renewable energy in tackling critical social, economic, and environmental issues. Outlined below are the endeavors and progress in the realm of renewable energy, viewed from an Indian perspective, with a focus on how they align with the SDGs.

3.1 SDG 7

The 7th SDG is dedicated to ensuring universal access to affordable and clean energy. The Indian government has taken substantial measures to achieve this objective, placing a significant emphasis on electricity generation through solar and wind energy sources. Actively participating in the promotion of solar energy, India collaborates through the ISA with other countries, facilitating the establishment of solar energy parks and the integration of solar panels on rooftops, thereby strengthening the nation's renewable energy capacity.

Furthermore, a key focus lies in enhancing energy accessibility and mitigating health and environmental risks in rural areas. Initiatives like the Pradhan Mantri Ujjwala Yojana play a vital role in this regard by facilitating the transition from traditional fossil fuel-based chulhas (stoves) to LPG, offering a cleaner and more efficient cooking solution for households. Additionally, India acknowledges the urgent necessity to

combat pollution resulting from fossil fuel usage, prompting a rapid shift towards the adoption of e-vehicles, a crucial step towards reducing emissions and promoting sustainable transportation alternatives throughout the country.

3.2 SDG 9

The SDG 9 pertains to the domains of industry, innovation, and infrastructure. In the Indian context, this goal is intricately tied to ongoing and upcoming initiatives aimed at fostering the renewable energy sector. India is significantly transitioning its energy sector towards renewable sources, driven by the global push for sustainability. In the past decade, the country has greatly increased its renewable energy capacity, particularly in solar and wind power, aiming for 500 GW of non-fossil fuel energy by 2030 and net-zero emissions by 2070. This shift is supported by government initiatives like developing solar parks, promoting Compressed Bio-Gas (CBG), and integrating renewables into smart cities. With 100% FDI allowed in the sector, India is attracting significant investment. This transition not only creates a cleaner environment but also promises economic growth and job creation, positioning India as a leader in the global renewable energy market.

As per Saur Energy Bureau, The Solar Energy Corporation of India Limited (SECI) is presently overseeing the advancement of solar power initiatives, collectively amounting to around 19,860 megawatts (MW). Within this portfolio, it is anticipated that roughly 2,270 MW from various projects will become operational by the culmination of the fiscal year 2024 (March 31, 2024). Prominent among these ventures is the Rajasthan Tranche-III Grid-Connected Solar PV Power Projects with a cumulative capacity of 400 MW and orchestrated by Green Infra Renewable Projects Limited. Similarly, the Rajasthan Tranche-III Grid-Connected Solar PV Power Projects, developed by NTPC Renewable Energy Limited, contributes an additional 470 MW to this burgeoning landscape. Furthermore, a section of the ISTS-VI connected projects, constituting 1,200 MW, is currently underway, with an anticipated completion of 300 MW by the end of the year 2023. Besides current projects, a multitude of new ventures are actively underway to propel the development of renewable energy across the country. India is propelling its industrial landscape through the 'Make in India' initiative, a concerted effort to boost the nation's manufacturing sector. This strategic push not only augments industrial growth but also aligns with the principles of sustainability by encouraging the production of renewable energy equipment such as, solar rooftops and chargeable batteries within the country. This not only promotes self-reliance but also generates substantial employment opportunities, contributing to the socio-economic fabric of India.

3.3 SDG 11

The SDG 11 focuses on “Sustainable Cities and Communities”, highlighting the crucial significance of sustainable urban development and the creation of inclusive, well-planned communities. In India, where rapid urbanization is a prominent trend, aligning with the principles of a circular economy is essential to achieving the objectives of SDG 11. The circular economy approach, which emphasizes resource efficiency, waste reduction, and sustainable practices, is actively being pursued by the Indian government. Efficient waste management stands as a foundational element within the framework of building sustainable urban environments, and India has implemented various policies to address this concern. However, meeting the ambitious targets of SDG 11 in the Indian context is challenging, primarily due to a substantial portion of the population residing in slum areas.

To enhance India’s progress towards SDG 11, it is imperative for Indian cities to initiate efforts aimed at diminishing and ultimately eradicating slums. Given that a significant portion of urban economies relies on labor from economically disadvantaged individuals, it is essential to integrate them into the urban fabric by offering cost-effective rental accommodations and affordable housing options. Bridging this urban-rural divide and uplifting marginalized communities are pivotal requirements for achieving sustainable cities and communities in India, calling for a comprehensive and inclusive approach.

Table 2. Initiatives and actions of Indian Government towards renewable energy

Globally 4 th position in overall Renewable Energy Consumption.
42% Cumulative installed capacity from non-fossil fuels; 50% targeted till 2030.
Renewable power generation nearly increased by 3 times from 61 billion units (BU) to 180 BU since 2014-15.
Solar Power installed capacity increased approx. 30 times from 2.6 GW to 70.10 GW since 2014.
Wind capacity increased 2 times from 21 GW to 42.6 GW since 2014
About \$78 billion investment since 2014 (\$10.27 billion FDI)
3rd highest RE capacity addition of 63 GW in last 5 years
Innovative policy intervention such as, ISTS waiver, RPO trajectory till 2029-30, Green Open Access Rules introduced

3.4 SDG 13

The SDG 13 underscores the need for collective action to confront climate-related challenges. A pivotal strategy in mitigating climate change revolves around curbing carbon and GHG emissions. The Indian government, recognizing the gravity of the issue, has instituted instrumental policies like the National Action Plan on Climate Change to address this pressing concern

comprehensively. Moreover, a spectrum of initiatives is in progress to augment the production of renewable energy utilizing a variety of approaches. The government is taking a holistic approach by not only advocating for sustainable modes of transportation but also intensifying public awareness campaigns to promote the adoption of clean energy sources. Aiming for a transformative shift, the Indian government has established a formidable goal of positioning the nation as carbon-neutral by the year 2070, reflecting a strong commitment to combating climate change on a global scale.

4. DISCUSSION

Through this probe, an effort has been made to overview the stand of the Indian government regarding the encouragement of renewable energy usage and moving towards a carbon-neutral economy. It explores various initiatives enfolded by the Indian government on its path towards laying the foundation stones of a carbon-neutral economy. The paper discusses the National Action Plan on Climate Change, electric mobility, and the tie-ups and collaborations made by the Indian government in shaping the nation running on renewable energy such as, the ISA. This inquiry affirms the pledges taken by the strategists in aligning with the ambitious targets of SDG taking steps towards waste management and decarbonisation through circular economy and providing carbon credits for CCUS. Overall, the paper accentuates the gravity of collaborative efforts to square up climate-related challenges and achieve a sustainable future. The paper also highlights the setbacks. India confronts in meeting the ambitious targets of the SDGs, categorically in the milieu of urbanization and slum areas. The findings presented here are highly relevant for policymakers, researchers, and other stakeholders interested in climate change and sustainable development in India. The paper provides a comprehensive overview of India’s initiatives to tackle climate change and advance renewable energy underscored by highlighting key initiatives such as, FAME policy and other initiatives. It underlines that while India has made magnificent progress in promoting sustainable development, much work remains to be done to achieve a carbon-neutral economy. To build on the progress made so far, it may be useful for India to consider the following recommendations:

4.1 Continue to Invest in Renewable Energy

India has made commendable progress in promoting renewable energy, but there is still a long way to go for the attainment of a carbon-neutral economy. Continued investment in renewable energy sources such as, solar and wind power will be critical to diminish GHG and alleviate the repercussions of climate change. The progress so far is mentioned below in Table. 2.

The Ministry of New and Renewable Energy, India, describes that we stand in the 4th position in overall renewable energy, with 42% of cumulative installed capacity from non-fossil fuels, however, the target is 50%, since 2014, the renewable power generation has increased by 1.5 times, solar capacity has been increased by 25 times and the wind capacity by 2 times. As per NS Energy, The Bhadla Solar Park is a magnificent development initiated by the Ministry of New and Renewable Energy along with Rajasthan Solar Park Development Company Limited which will be generating nearly 2.25 GW of solar power.

4.2 Promote Circular Economy Strategies

The circular economy approach, which emphasizes resource efficiency, waste reduction, and sustainable practices, is actively being pursued by the Indian government. Promoting circular economy strategies in all sectors of the economy could help mitigate GHG emissions while fostering sustainable development.

4.3 Address the Challenges Unbounded of Urbanization

Rapid urbanization is a protuberant trend in India, and aligning with the principles of a circular economy is essential to achieve the objectives of SDG 11, addressing the challenges of urbanization, particularly in slum areas, will be critical to achieve a sustainable future.

4.4 Enrich International Cooperation

Climate change is a worldwide problem that requires collective action. India should continue to enrich international cooperation and collaboration to address climate-related challenges and promote sustainable development.

4.5 Reuse of Carbon Deposited in Carbon Sinks

We know that carbon is an elemental requirement for many industries. Wherever the word "organic" is attached there is the presence of carbon such as, in organic farming, organic cosmetics, etc. So, the country should look for some innovations to extract carbon from the atmosphere and collect it in sinks for further utilization into industries such as, chemical industries, fuel generation, cosmetics, carbon mineralization etc. These are some of the recommendations that could help India build on the progress made so far and achieve a more sustainable future.

5. CONCLUSION

Through this study, a comprehensive exploration has been conducted into the diverse array of initiatives embraced by the Indian government on its path towards establishing a carbon-neutral economy. As the global community faces the escalating challenges posed by climate change, SDG 13, dedicated to climate action, rightfully takes center stage in endeavor to achieve a future marked by sustainability. India, aligning itself with this urgent global objective, has meticulously crafted policies and action plans, prominently demonstrated by the National Action Plan on Climate Change, to steer the nation towards a more environmentally sound and climate-resilient trajectory. Efficient utilization of renewable power resources stands as a pivotal stride towards achieving carbon neutrality.

The Government of India is actively engaged in noteworthy endeavors aimed at harnessing these resources effectively, recognizing their paramount importance in the transition towards a sustainable and environmentally conscious energy landscape. India is significantly curbing carbon emissions while fostering sustainable growth. The ambitious vision of achieving a carbon-neutral nation by 2070 epitomizes India's unwavering commitment to combat climate change, seamlessly aligning with the SDGs and embodying a spirit of responsible global citizenship.

In essence, the expedition towards a carbon-neutral economy necessitates a multi-dimensional approach, encompassing policy development to active engagement with renewable energy. It is hopeful that the multifaceted measures undertaken on the road to achieve carbon neutrality will not only yield success but also culminate in fulfilling our endeavours for the greater welfare of humanity.

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CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest.

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