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Analysing India's Adaptability Towards Climate Action Goal Under SDGS

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Abstract
Climate change is one of the global concerns affecting the entire ecosystem. To deal with this issue, United Nation adopted 17 Sustainable Development Goals (SDGs) in 2015, setting targets for 2030 and made uniformly applicable on both developed as well as developing countries. Amongst the 17 SDGs, 13th goal calls for urgent action to combat climate change in India, as climate change is undermining the achievement of nearly all SDGs. However, SDGs were fixed leaving behind the unique capacity of nations and their socio-cultural and political heritage. As a result, a uniform goal in the form of SDGs is found to be unsuitable for India. The major challenge about the existing SDGs is that they talk about the goals rather than the empowerment to achieve the targets set by it. While SDGs have remained a goal for all the nations across the globe a crucial aspect of empowerment has been missing out from it. Therefore, the author will analyse this precise issue of SDGs and unique capacities of nations across the globe in specific the position of India. The author will further highlight the challenges in implementation of Climate action goal under SDGs within India and will recommend suggestions at the policy and execution level for the same.

Keywords: climate change, sustainable development goals, empowerment, unique capacity of nations.

1. Introduction

Climate change is perhaps the biggest challenge facing the world today and poses potential threats to the environment. One of the promising routes by which climate change could mitigate is to introduce the concept of sustainable development.

A significant step towards bringing both developed and developing nations on similar path of sustainable development was the introduction of comprehensive global targets and indicators of Sustainable Development Goals (SDGs). The Member States of United Nation (UN) General Assembly adopted the Sustainable Development Goals consisting of 17 goals (Figure 1) and 169 targets in 2015 (THE 17 GOALS, n.d.) through Paris Agreement signed by 196 countries at UN Climate Change Conference (COP21) in Paris, France (United Nations, 2015).

Figure 1: Sustainable Development Goals (THE 17 GOALS, n.d.)

The concept of development has its importance with respect to its transformed approaches to the social and economic (Fayomi, O., Okokpujie, I. P., & Udo, M., 2018). Brundtland Commission Report, also called 'Our Common Future' (Our Common Future: Report of World Commission on Environment and Development, n.d.), introduced the definition of sustainable development in 1987 by the World Commission on Environment and Development (WCED) as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Our Common Future: Report of World Commission on Environment and Development, n.d.). The definition has two focal points (Hedenus, F., et al, 2016); Firstly, the word "needs" refers to the basic requirement of the world's deprived,

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to which priority ought to be given. Secondly, the possibility that the condition's ability to fulfil the current and future demands will be strained by the innovation and social association.

The evolution of the SDGs birthed from numerous attempts of the UN to improve the quality of life for everyone, both the wealthy and the poor, around the world. Preceding the SDGs, Millennium Development Goals (MDGs) in 2000 was one of their initiatives to address the development gap around the countries back then. The MDGs had following eight objectives (World Health Organisation: WHO, 2018), that is to be achieved by 2015:

- Eradicate extreme poverty and hunger,
- Achieve universal primary education,
- Promote gender equally and empower women,
- Reduce child mortality,
- Improve maternal health,
- Combat HIV/AIDS, malaria, and other diseases,
- Ensure environmental sustainability,
- Global partnership for development.

However, there were several shortcomings, the MDGs could not effectively achieved. Such as lack of intermediate objectives, obsolete data, non-participation of private sectors; lack of societal and investment support which further led to the establishment of SDGs. Though sustainable development is a global concept, but every country has its own challenge in attaining it.

Talking about India, one of the authors has highlighted that India has memorably been described as a 'premature power' by the country's former foreign secretary and chief climate negotiator, discussing the disconnect between India's relative global power and measure of domestic well-being (Dubash, N., 2012). It can also relate to the dual identity of India with respect to climate change, where on one hand India is the 3rd largest emitter in Greenhouse Gas emission (GHG) (Friedrich, J., n.d.) in 2023 (Figure 2), it became the 5th fastest growing economy with US $3.9 trillion GDP (World Economic Outlook, 2024) amongst G20 countries (The group of twenty members, n.d.). GHG consist of water vapour (H2O), carbon dioxide (CO2), nitrous oxide (N2O), methane (CH4), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) and Ozone (O3), CO2 is the most common GHG emitted and has total impact on global warming. India has witnessed a rapid growth of 6.7% of CO2 in 2023 (International Energy Agency, 2023), and energy sector including electricity generation is the biggest contributor (Dubash, N., 2012) towards these emissions. However, poverty, unemployment, inflation, environmental sustainability, etc. always remains the cause of concern to India.

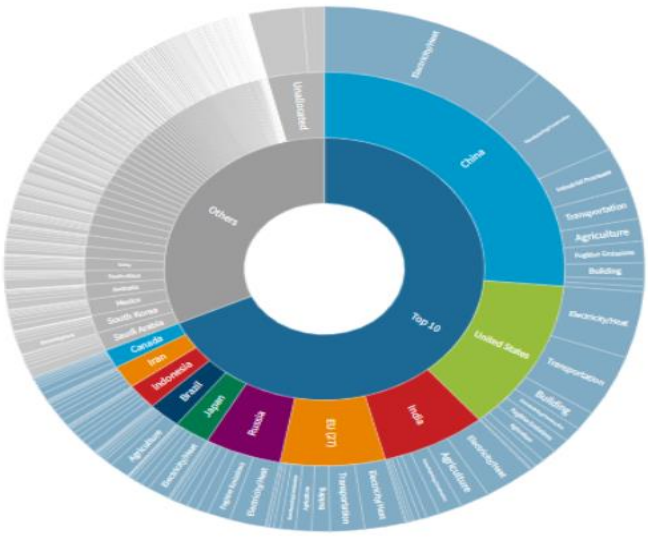

Figure 2: World's top 10 GHG emitters (Friedrich, J., n.d.)

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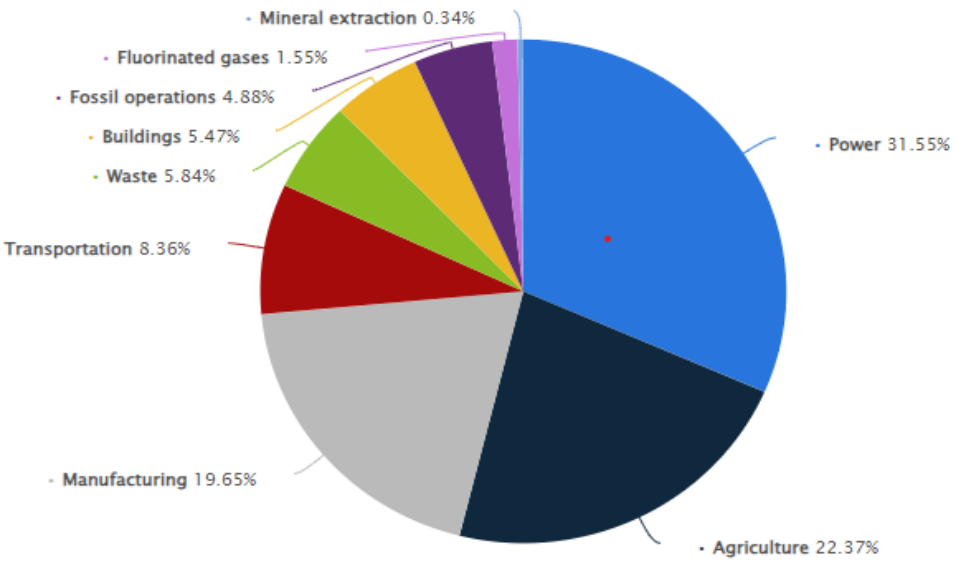

Figure 3: Distribution of greenhouse gas emissions in India in 2022, by sector (Statista, 2024)

Amongst the various economic and social challenges, climate change became the inescapable reality for India which required an urgent action. To mitigate the problem of climate change, the United Nations Framework Convention on Climate Change (UNFCCC) focused on SDG 13 (THE 17 GOALS, n.d.) which highlights **"Climate Action"** and sets long term goals for all the nations (United Nations, 2015). However, the question before us is that has there been any significant progress in India since 2015 towards achieving sustainable development? When we talk about climate change, the progress is relatively slow as there has been major increase of carbon dioxide (CO2) in the atmosphere in the last decade and India became the 3rd largest GHG emitter globally (Bhattacharya. S., 2024).

To study the above problem, the author has used the qualitative and descriptive methodology of research to provide a diverse perspective of policies on adaptive capacity of SDGs on climate change within India. This paper is separated into four parts. Part II of the paper discusses the development of SDGs and the adaptive capacity of India, Part III explains the impact of climate change on India, Part IV talks about India's initiatives on climate action goal and the challenges in its implementation and Part V of the paper encapsulates research issue in conclusion and gives suitable recommendations.

2. History as Prologue: Early Indian Perspectives on SDGs

2.1. Learnings from MDGs

The SDGs build on the success of the Millenium Development Goals (MDGs). The eight MDGs were adopted in 2002, by the Member States of UN General Assembly, as a framework to operationalize the Millenium Declaration which was articulated as 'collective responsibility to uphold the principles of human dignity, equality and equity at the global level' and to eradicate the poverty and destitution (Getting started with the sustainable development goals: A guide for stakeholders, 2015). The MDGs concentrated on the various aspects such as extreme poverty, poor incomes, persistent hunger, gender disparity, lack of access to healthcare, education, and clean water and sanitation deficiencies. Even though they made significant progress towards a number of these goals, many nations fell short, particularly in the areas of severe poverty and environmental sustainability.

2.2. SDGs and its shortcomings

The SDGs are a part of various multilateral initiatives to shift the world towards sustainability. Intergovernmental efforts formally began with the 1972 UN Conference on the Human Environment at Stockholm (United Nations, 1972). The word 'sustainable development' (THE 17 GOALS, n.d.) was introduced in 1987 in "Our Common Future" A report of World Commission on Environment and Development", popularly known as Brundtland Commission Report (United Nations,

1987). The concept of 'intergenerational equity' was formally adopted at the UN Conference on Environment & Development, 1992, known as 'Earth Summit', in Rio De Janeiro, Brazil (United Nations, 1992). The Earth summit led to the beginning of the climate change negotiation process. This resulted in the establishment of the UN Centre for Sustainable Development and the drafting of national policies by various nations, ultimately leading to its end at the 2002 World Summit on Sustainable Development in Johannesburg. Due to the Summit's relative failure, attention returned to the goal of ending poverty.

Later, the SDGs were adopted by the Member States of UN in 2015 during the 2030 Agenda for Sustainable Development with an aim to achieve them within 15 years (THE 17 GOALS, n.d.). These SDGs were a governing outline to achieve a sustainable future after the expiration of Millenium Development Goals (MDGs).

The MDGs dealt only with developing nations and could not captured the three dimensions of sustainability i.e., Social, Economic and Environmental. To broaden the scope of these goals, the SDGs were implemented to address the implementation barriers as well systematic barriers to sustainable development and to provide a balance between the three dimensions of sustainability. The UN viewed these SDGs as an "integrated and unified", thereby supporting various priorities and opportunities for all nations in terms of achieving them. But the SDGs suffered with various shortcomings and have not considered certain barriers - such as inequality, inappropriate consumption and institutional structure and capacity.

The Paris Agreement under SDG 13 sets long term goals for all nations to substantially reduce global greenhouse gas emissions to hold the rise in global temperature below 2 degrees Celsius and pursue efforts to limit it to 1.5 degrees Celsius (United Nations, 2015). The agreement looked these goals as a global commitment from all countries to reduce their emissions and work collectively to adapt the climate mitigation. Talking about India, the paradox between the objectives and their outcomes of SDGs in India is because the implementation of SDGs varies from country to country and depends upon the country's adaptive and assimilative capacity.

The term adaptive capacity is defined by the IPCC as "The ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences" (Eds. M.L. Parry, et al, 2005). In India, the adaptive capacity varies by state, geographical region, and socio-economic status. From the perspective of political economy, there are inequal distribution of powers between the corporate sector versus the consumers; between the state versus indigenous communities; and the between countries in the global north versus global south. Taking an example of United States, whose entire lifestyle depends heavily on high levels of fossil fuel consumption, are the most resistant to such commitments. To achieve the sustainable development, it requires a major shift in production and consumption choices, and more towards environment friendly tools which furthers impose high costs on those groups that have enjoyed the fruits of environmentally unsustainable production and consumption (Lele, S., 2013).

The adaptive capacity also depends upon whether India has the range of technological options available for such adaption unlike other European countries, does it have the resources available and equally distributed across the population and whether India has that support of structural institutions to implement the SDGs.

Also talking about the 17 SDGs, it has been noted that if goals are pursued independently, taking a particular action to achieve one goal may have unanticipated consequences on other goals. According to the research, most goal areas are interconnected, many objectives may contribute to several goals, and there are significant trade-offs between several goals and targets. Say for an example, adaption and mitigation of climate change may impact on the economic growth, with disproportionate impact on poor (SDG 1), making it more difficult to achieve and sustain beyond 2030 (International Council for Science (ICSU), 2015). Also, as per the WMO's United in Science report (Aditi Tandon, 2023), out of 17 SDGs, climate change affects 8 SDGs i.e., SDG 2 (Zero Hunger), SDG 3 (Good Health and Wellbeing), SDG 6 (Clean Water and Sanitation), SDG 7 (Affordable and Clean Energy), SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate Action), SDG 14 (Life Below Water) and SDG 17 (Partnerships for the Goals).

A closer collaborative relationship between the policy and scientific communities, as well as other stakeholders, is necessary to address the conceptual and implementation challenges that the SDG framework poses. Global research

programmes like 'Future Earth' (Home, n.d.) are designed to encourage scientists to work together to address these problems in collaboration with stakeholders and policymakers, as well as more generally to provide the information required to promote changes towards sustainable development.

As previously discussed, that the success of SDGs is partly dependent on the targets and goals with existing international agreements and political processes making it broader and more complex. The SDGs were made applicable on all countries; therefore, the application of each goal will vary from country to country. Currently, India is facing various challenges in implementing the sustainable development such as scarcity of indicators to measure the outcomes, financial support, monitoring and measuring the progress. Before implementing the SDGs, India needs to be empowered and technically available. It would not be justified to expect the same outcome from India irrespective of its demographic capacity, unlike USA and China.

3. Climate Change

Climate change has been identified as one of the major crises facing the global community (Aminzadeh, S. C., 2006, Wewerinke-Singh, M., 2019, Alabi, S. A., 2010). According to **Article 1** of United Nations Framework Convention on Climate Change (UNFCCC):

"Climate change means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods." (United Nations, 1992)

Climate change refers to a statistical shift of climate variables at a regional or global level over considerable periods. Over millennia, climatic variables, including global mean temperature were relatively stable, but in the last few decades, catastrophic changes have been observed (Christiansen, T., & Voigt, T., 2008). It is one of the biggest challenges and years long political debate amongst the countries. India is one of the most vulnerable nations in the world to climate change and one of the major GHG emitter. The country is already undergoing climate change, its effects, such as rise in sea levels, flash floods in Jammu (Climate Change, 2023, July 27th), cloud burst in Uttarakhand and Himachal Pradesh (Climate Change, 2023, July 27th), forest fires in Himachal Pradesh due to extreme heat waves (Mahale, S., 2024, January), drought (Press Trust of India, 2024 February 29), chronic flooding of Brahmaputra River in Assam (Asian Development Bank, 2023), and related detrimental effects on health and livelihoods. The population of India, which is divided across 28 states and seven union territories, is around 1.44 billion (India population, 2024) as per the report of 2024, making it the largest country in the world. India has a huge landmass, and different regions of the country experience different patterns of precipitation (Khan, M. D., et. al, 2019).

Under 2015 Paris Agreement, Goal 13 talks about "take urgent action to combat climate change and its impact" to address the issue of climate change and to bring environment sustainability. As per **Article 4** of the said agreement (United Nations, 2015), each country shall communicate an updated national climate action plan known as Nationally Determined Contribution (NDC) in every five years. NDC shows the commitment of every country towards the global target to reduce greenhouse gas emissions. In accordance with the Paris Agreement, India submitted its first NDCs in 2015 (Government of India, 2022), which included eight targets for the years 2021-2030 (Government of India, 2022).

- To propagate a healthy and sustainable way of living through mass movement for 'LIFE'- 'Lifestyle for Environment'.
- Reducing its GDP's carbon intensity from 2005 levels by 45 percent by 2030,
- By 2030, non-fossil fuel-based energy resources will account for about 50% of installed capacity for electric power, with the help of technology transfer and low-cost international financing, such as from the Green Climate Fund (GCF).
- Additional forest and tree cover by 2030 to create carbon sink of 2.5-3 billion tonnes CO2 equivalent.
- The other goals are related to climate-friendly growth routes, technology and capacity building, climate change adaptation, climate change finance, and sustainable lifestyles.

The Indian government has implemented mitigation legislation that addresses certain of the rights of the Indian community, such as access to energy and the promotion of human liberty, although it does not always uphold all fundamental rights. The rights that will be impacted are either those that Supreme Court of India has determined to be an integral part of **Article 21** (Fundamental Rights, 1950) such as the rights to livelihood, health, and other basic necessities, or those that are fundamental rights under the Indian Constitution, including the **Article 21**. If the State violates fundamental rights without according to "procedure established by law," it is unconstitutional. Since there is no legal system by which persons can be denied their rights in the context of climate change, a breach of the rights constitutes a constitutional offence (Rural Litigation and Entitlement Kendra vs. State of Uttar Pradesh, 1988, M.C. Mehta vs. Union of India, 1987, Maneka Gandhi v. Union of India 1978).

4. India's initiatives to combat Climate Change

Internationally, at Rio Earth Summit in 1992 (United Nations, 1992), the concept of "Common but Differentiated Responsibilities" (CBDR) was adopted. According to Principle 7 of the said summit:

"In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command". (United Nations, 1992)

Similarly, UNFCCC also states that parties must act "on the basis of equality and in accordance with their common but differentiated responsibilities and respective capabilities" to maintain the climate system. Although all countries are accountable for the sustainable development globally, but each country has a unique set of skills that it may contribute to mitigate the climate change.

Later, in 2002, India acceded to the Kyoto Protocol, although neither the Protocol nor UNFCC obligate the Government of India to reduce its GHG emissions (Kyoto Protocol, 1997 December 11). The administration is adopting several voluntary actions, though, to moderate the rise in GHG emissions. The Convention recognises that "economic and social development and poverty eradication is the first and overriding priorities of the developing nations".

Nevertheless, the introduction of renewable energy and investments in Clean Development Mechanisms (Kyoto Protocol, 1997 December 11) is one of the measures taken by India. With the introduction of the concept Sustainable development at Stockholm Conference, 1872, as it became an integral part to combat climate change, India has also passed various laws protecting the environment such as:

- Water (Prevention and Control of Pollution) Act, 1974;
- Air (Prevention and Control of Pollution) Act, 1981;
- Environment (Protection) Act, 1984;
- National Green Tribunal Act, 2010.

Irrespective of the abovementioned laws, none of the legislation have talked about climate change and its concerns. It is an undeniable truth that India needs a Climate Change Law like Sweden, UK, New Zealand and France. Although India secured 7th position in climate mitigation progress in 2024 (Figure 3), but its dependency on fossil fuel for generating energy is largely driven by coal and therefore, requires energy transition.

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Figure 4: Climate Change Performance Index (Report, 2023 December 8)

The government of India has also introduced various energy regulations and instituted new ministries and administrative departments. Such as to mitigate climate change Government of India has also adopted the **National Action Plan on Climate Change (NAPCC)** (National Action Plan on Climate Change, n.d.) in 2008 to promote the understanding of climate change, adaptation and mitigation. It comprises of eight core missions in specific area such as solar energy, enhanced energy efficiency, green India, sustainable habitat, water, himalayan ecosystems, sustainable agriculture and climate change. Mostly all the states have drafted their State Action Plan on Climate Change (SAPCC) inconsonance with NAPCC, however as being highlighted before, NAPCC is not a law and just an initiative taken by India towards climate mitigation.

4.1. Key initiatives of Indian Government towards Climate Action goal

1. International Solar Alliance (ISA)

India is witnessing the hottest climate in 2024 and has become a place nearly uninhabitable for humans. But it is undoubtedly the best season for solar farms in India. ISA is a solar power development project in collaboration with France and was launched in 2015. The alliance was formed with solar-rich countries to reduce the dependency on non-renewable sources of energy like fossil fuels.

2. One Sun, One World, One Grid Project (OSOWOG)

The OSOWOG project was proposed in 2018 and UK jointly launched this project in partnership with ISA and World Bank group. This project aims to provide energy to about 140 countries by a common grid that transfers solar energy by addressing global energy problems.

3. Net Zero emissions by 2070: A green energy transition

It was announced by India in COP26 of UNFCCC held in Glasgow in 2021, succeeding with first Long Term Strategy for Low Carbon Development (LT-LEDS) in 2022 at COP27. In December 2022, India introduced a "net zero emissions" bill in the Rajya Sabha significantly to convert the net zero target into a legislation. But the bill has not advanced through the legislation process in 2023 and its likelihood of approval in parliament is relatively low. In the Lt-LEDS, India targets the power, industry, transport, building, and urban sectors via sector-specific action areas. However, the LT-LEDS falls short of offering clear policy guidance on how the government plans to attain net zero. It does not outline any routes for emissions or indicate the degree to which the policies and actions covered in the LT-LEDS will result in the necessary reductions in emissions by 2070.

4. Global Biofuels Alliance (GBA)

It is an initiative taken by India as leading producers and consumers of biofuels to drive development and deployment of biofuels. It aims to make biofuels as a key to energy transition (New Phase of Leadership on Energy Transition, n.d.).

5. Solar Power Revolution

India is currently experiencing a significant transformation in installing solar panels towards green energy. The country is at 4th rank in the world in solar power capacity and is pushing itself to achieve 500GW of renewable energy capacity by 2023. Production Liked Incentive (PLI), Solar Park Scheme, PM-KUSUM, Rooftop Solar Programme, International Solar Alliance (ISA), etc., have been adopted to mitigate climate change (Solar Overview, n.d.).

6. National Green Hydrogen Mission

In 2022, India has set its target to become energy independent country by 2047 and achieve Net Zero by 2070. Green Hydrogen is considered to be a promising step towards energy transition and making India a leading producer and supplier of Green Hydrogen globally (National Green Hydrogen Mission, n.d.).

India has been actively participating in the implementation of the sustainable development goals as part of its national development objectives. The revolutionary phrase "SABKA SAATH SABKA VIKASH" or "COLLECTIVE EFFORT, INCLUSIVE GROWTH" introduced by the Prime Minister Narendra Modi is considered as the main slogan for India's national development agenda (Devi, K, 2017). India in COP 28, held in Dubai in 2023, discussed its adaptation and mitigation efforts to tackle climate change. Prime Minister, Shri Narendra Modi focused on availability and accessibility of climate finance to developing countries. India and Sweden have also co-launched the Phase II of the Leadership Group of Industry Transition (LeadIT 2.0) for the period of 2024-26, towards industry transition and transfer of low-carbon technology (Ministry of Environment, Forest and Climate Change., 2023).

Despite several measures, India's position on climate change is not positive. It is imperative to state that under **Article 21** (Fundamental Rights, 1950) provides every person has a right to healthy environment and **Article 48A** (Directive Principle of State Policy, 1950) empowers the States to protect and improve the environment. The conflicting policies and interests within India are causing serious obstacles to ongoing mitigating efforts. Also, India is rich in biodiversity whereas at the same time its high reliance on traditional sources of energy methods is indispensable to meet the energy demand. With the rapid increase in the demand for energy and carbon intensive materials, the environment sustainability has become extremely vital for the country. Therefore, implementing the SDGs and meeting the targets of climate action is a challenge for India, as SDGs are more suitable for the developed nations, which may be inappropriate and can cause excessive societal cost for India.

4.2. Challenges of India in implementing SDG 13

1. **Power plants and agriculture:** India's majorly produces electricity by burning of coal. It releases enormous amount of CO2 into the atmosphere while producing electricity. Coal has one of the greatest carbon intensities of all fuels; burning coal produces twice as much CO2 as burning petrol for the same amount of energy. Coal has been recognised as one of the least environmentally friendly energy sources as a result.

Agriculture is the second-largest source of emissions in India. The rice and paddies produce a large amount of methane which is one of the components of GHG.

2. **Inadequate finance:** In 2009, the developed countries committed to jointly provide US $100 billion per year by 2020 under UNFCCC to address the needs of developing countries. At Paris Agreement held in 2015, **Article 9 of the Paris Agreement** (United Nations, 2015) stipulates that developed countries shall provide financial resources to assist developing countries with respect to both mitigation and adaptation towards its obligations. Although the developed countries did not fulfil their commitments, it was decided to extend the financial support to 2025. India being a developing country having fiscal deficit of 5.8 percent in 2023-24 which is estimated to be 5.1 percent in 2024-25 as per the Union Budget 2023-24 (Mishra, P., et. al, 2023) has highlighted the issue of climate finance at COP26 held in Glasgow, 2021, that the climate actions are largely been financed from its domestic sources, including the government's fiscal instruments and policy intervention (India has Taken Lead to raise the issue of Climate Finance at International Forums, July 2022). According to the said Budget 2023-24, the Ministry of Environment, Forest and Climate Change has been allocated Rs.3,079 Crores towards setting up of renewable energy to tackle climate change (Mishra, P., et. al, 2023).
3. **Environmental challenges:** Frequent alteration of environment such as heavy rainfall, extreme heat waves, drought and cloud burst, has impacted the human health, livelihood and economy of India undermining the SDGs and its associated targets.
4. **Lack of Intergovernmental Institution:** The federal government mainly focuses to implement national policies, enacting laws at the national level, and directing international conferences, agreements, and treaties pertaining to climate change.
5. **Environmental (Protection) Act, 1986** does not address issue of Climate change specifically it only talks about pollution which is only the factor and not the result. Even core statutes like Air Act and Water Act does not refer to the climate change. Not even the Constitution mentions the word climate.
6. **Consumer behaviour and climate concern are not coherent**: The environmental sustainability can only be achieved if the citizen of India is sensitive towards their fundamental duty mentioned in Article 51A(g) (Fundamental Duties, 1950).

5. Conclusion & Suggestions

India has made significant strides towards installing renewable energy capacity, ranking fourth in the world in 2022, but its reliance on fossil fuels is still growing as a result of forcing coal and gas-fired power plants in order to meet the spike in seasonal electricity demand.

Since the adoption of SDGs in 2015, India has not been able to achieve the climate action targets irrespective of its growing economy. The rapid increase in climate change and global warming can cause a major threat on human life. India is witnessing various challenges in adopting SDGs as stated previously has made SDGs unrealistic and ineffective for India.

The emission in climate is certainly a cumulative contribution which is a decisive benchmark of the responsibility of each member country to combat climate change. Therefore, SDGs demands to develop a strong framework capable of fundamentally altering as per the response of Indian cities to the climate change. These developments will be fuelled in part by governance and technical innovation and in part by the development of effective implementation mechanisms. Therefore, India's global commitments towards net zero target should not be just seen as a diplomatic tick box, perhaps be an energy transition towards sustainable end of life.

Suggestions

1. India needs to phase out the fossil fuels along with the global commitment made by COP28. India requires overall energy transition and a shift towards clean energy.
2. Put an end to developing coal power capacity and create a sustainable and inclusive strategy for early retirement of the current capacity. This involves accelerating the deployment of renewable energy sources and storage options to guarantee that demand peaks during the year may be firmly fulfilled.

3. India needs a robust energy efficient regime on alternative fuels such as biofuels, CNG, LNG, Electric Vehicle in the vehicle.
4. Investments in renewable energy in generating electricity should be increased.
5. India should have an intergovernmental body, balancing the economic growth with decarbonisation.
6. Imposition of Carbon tax (Pradyot, M., Chopra, R. K., 2023) on user of fossil fuel is a need of hour. It is based on the 'polluter pays' principle and is a strategy to make users of vehicle to compensate for the damage caused to environment.

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