

# SUSTAINABLE DEVELOPMENT: A PATHWAY FOR CLIMATE CHANGE ACTION

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## INTRODUCTION

“The world has enough for everyone's needs, but not everyone's greed.”<sup>i</sup>

Nearly the entire world's population has been impacted by the COVID-19 epidemic, and even the world's most powerful superpowers have been brought to their knees by this force majeure. Despite the fact that the corona virus's precise origins are still unknown and that China is frequently blamed for it, the pandemic has shown us all that the environment cannot be taken for granted in the never-ending rush for development and progress. Effective action must be made to ensure that development occurs in concert with the environment, not in place of it. The notion of "sustainable development," which the United Nations and several nations across the world have been promoting for the longest time, is based on this very principle.

Different individuals from around the world have given their own definitions of the phrase "sustainable development." The Brundtland Report, also known as Our Common Future, offers the definition that is most frequently used, which is as follows:

Sustainable development is defined as growth that satisfies current demands without jeopardizing the capacity of future generations to satisfy their own needs.<sup>ii</sup>

In plainer terms, the concept states that resources from all across the world should be used for growth while yet leaving enough for future generations.<sup>iii</sup> The idea states that just the amount that is actually essential must be used, as opposed to the user having to use every resource accessible to them.<sup>iv</sup> Additionally, it means that the global community must work to prioritise the use of renewable resources above non-renewable ones. The dangers of resource exploitation and/or waste led to the perception that such development was necessary. The "must-have, must-buy" mentality has caused significant environmental problems for the modern global

population from the beginning of time. If we continue along this path, our children and our most valuable possessions will suffer just as much as or even more. The United Nations took action in 2015 and created 17 Sustainable Development Goals ("SDGs") after realising the urgent need to promote a sustainable type of development. The SDGs, also known as the Global Goals, are a set of 17 interrelated objectives that serve as a "blueprint to build a better and more sustainable future for all."<sup>v</sup> The SDGs, which were established by the UNGA in 2015 and are part of a UN Resolution known as the "2030 Agenda," are meant to be accomplished by the year 2030. The above-mentioned Goal No. 13, or "Climate Action," will be the main emphasis of the current study article. The official language of the same is to "Take urgent action to combat climate change and its impacts"<sup>vi</sup> Climate action, thus, refers to taking the proper "action" or "actions" to combat the current global climate change. The goal comprises goals that must be met by the year 2030, just like the other SDGs. Numerous indicators are used to gauge the same's development.

Let's attempt to understand why climate action is necessary in the first place and, consequently, why the current research is also necessary before we begin our conversations on how this SDG No. 13 has been doing in various nations.

## OVERVIEW OF THE RESEARCH PROBLEM

Even if the outgoing president of the most powerful nation, the United States, chooses to reject it, climate change is real and poses several risks that are currently hidden but will become obvious in the future. According to data made public by the UNDP, global greenhouse gas emissions are significantly greater now than they were in 1990. Our climate system is already changing permanently as a result of the threat of global warming, and if we do nothing, the effects might be irrevocable. It is noteworthy to note that 2019 was the second-warmest year on record.<sup>vii</sup> Not only that, but the 2010–2019 time period was also the hottest in recorded history. Furthermore, according to the current state of affairs, the end of the century should see an increase in global temperatures of no less than 3.2°C.

The numbers above create a dreadful picture. In addition to this, the average yearly economic damages from disasters linked to climate change are in the trillions of dollars. Not to mention

the effects of geophysical disasters on people, which are 90% of the time, it's the weather. Between 1998 and 2017, this tragedy trained 1.3 million individuals and harmed 4.4 billion people.

The Paris Agreement, based on the United Nations Framework Convention on Climate Change (UNFCCC) and agreed by member states at the 2015 United Nations Climate Change Conference (COP 21) in Paris in December 2015, took into consideration the enormous effects of climate change. The agreement united all countries in the battle against climate change and in adapting to its impacts in order to limit the rise in global temperature this century below 2° C. In a study published in May 2015, it was determined that nations may achieve the sustainable development objectives and targets outlined therein by themselves with the help of a very ambitious climate agreement made in Paris in 2015. The study goes on to say that the SDGs must be achieved in order for climate change to be addressed. It is also important to note the strong connections between "economic development" and "climate change," notably in relation to energy, gender equality, and poverty. In order to reduce harmful effects on the environment, the UN supports public sector action. In 2018, the Intergovernmental Panel on Climate Change released a special study titled "Global Warming of 1.5°C" (IPCC). It described the effects of a 1.5 °C increase in global temperature over pre-industrial levels and associated worldwide pathways for greenhouse gas emissions. It also underlined the potential of avoiding some of these effects by keeping global warming to 1.5 °C as opposed to 2 °C or greater.<sup>viii</sup>

According to the aforementioned report, this would then necessitate a reduction in global net human-caused CO<sub>2</sub> emissions of roughly 45% from 2010 levels by 2030 in order to reach "net zero" around 2050. This would require "rapid and far-reaching" changes in land use, energy production, industry, construction, transportation, and urban planning.<sup>ix</sup>

As the aforementioned publications also point out, the USA withdrew from the deal after a change in administration in the United States, marking the withdrawal of a major superpower from arguably the most important step made in the direction of climate action.

The research topic of the current study is defined by the ever-worsening condition of climate change, the waning commitment of world superpowers to decreasing the impact of climate change, and the requirement to emerge from them to combat climate change with innovative and effective ways.

## THE IMPACT OF CLIMATE CHANGE AND ITS LINKAGES TO OTHER AREAS

In actuality, climate change has an impact on individuals from all areas of life. As a result, the SDG 13 on Climate Action has an impact on people from all areas of life. In reality, as will be seen later, it will be accurate to argue that climate action is intrinsically related to the other SDGs.

The influence of climate action on the eradication of poverty across the globe is one of the most significant multidisciplinary functions, and hence a key focus of the current study. In this sense, SDG 13 and SDG 1, which asks for "no poverty," are intrinsically interwoven. Through climate action, steps would be taken to create sustainable development, which would comprise development that leaves adequate resources available for everyone to use.

It will guarantee that everyone has access to acceptable living circumstances, adequate food, and adequate healthcare. Moving a step further, SDG 10—which addresses reducing inequality in the world—also has connections to SDG 13 in this way. "Reduce inequality within and among countries" is the entire title.

SDG 17 (on "partnerships for the objectives") is another SDG that has a strong link. The United Nations adopted 17 Sustainable Development Goals in 2015. One of them is to "Strengthen the mechanisms of implementation and revive the global partnership for sustainable development." 17 goals under the Goal must be accomplished by 2030 and are divided into five categories: money, technology, capacity building, trade, and systemic challenges. Twenty-five indicators will be used to gauge progress toward goals.

The UNGA adopted Sustainable Development Goal 7 as an additional SDG in 2015. "Ensure access to cheap, dependable, sustainable, and contemporary energy for everybody," reads the mission statement. This objective and SDG 13 are connected.

Regarding the aforementioned, it is evident how the fight against climate change will redefine other linked fields of social and economic study, making the current study even more pertinent to the times.

## **A REVIEW OF RELATED RESEARCH AND DEVELOPMENT**

The SDG 13 outlines the following goals that must be met.

- 1) Boost global adaptability and resistance to climate-related dangers and natural catastrophes.
- 2) Include climate change mitigation measures in national planning, strategy, and policies.
- 3) Enhance climate change education, awareness-raising, and institutional and human capacity for impact reduction, early warning, and adaptation.
- 4) Implement the pledge made by developed-country parties to the UNFCCC to a goal of mobilising \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation, and as soon as possible fully operationalize the Green Climate Fund through its capitalization.<sup>x</sup>

### ***International Status***

The majority of research on these mentioned targets has been institutionalised. Internationally, intergovernmental organisations from all over the world have conducted useful research in this field; the researcher will draw useful conclusions from this research in the current study. The majority of these studies have been actively carried out by UN organisations, including the Open Working Proposal for Sustainable Development Goals and numerous UNDP programmes, among others. Other key studies have arrived from reputable western universities, and these will be thoroughly examined during the length of the current study.

### ***National Status***

India-specific research has also been institutionalised. The United Nations has done wonderful work determining how well nations are doing in terms of achieving the goals outlined in SDG 13. Other institutionalised research includes studies conducted by the government, NITI Ayog assessments, and Environment Ministry studies. Even if it is limited, the work done by individual researchers with reference to the particular topics stated above is noteworthy.



## OBJECTIVES OF THE STUDY

- 1) To evaluate how the Indian Government's measures have affected national progress toward SDG 13 goals.
- 2) To determine if India can learn from other nations' achievements of the SDG 13 objectives worldwide or vice versa.

## METHODOLOGY

The present study's preliminary technique may be summed up as follows. First, the researcher conducted in-depth theological study to determine the current situation in nations throughout the world in relation to actions made to meet SDG 13 objectives. The cornerstone or foundation of the current investigation is also formulated by the same. The researcher reviewed the policies, laws, and other cooperative actions done by various governments throughout the world in this area. Due to the distinctive ways that each type of system works, In addition to the federal or central governments of the various nations, the researcher also paid attention to the province governments.

Such a fundamental formulation will serve as the foundation for the researcher's comparison of the study's goals.

Such fundamental assessments will assist the researcher in understanding and determining the current situation in relation to achieving SDG 13 as well as the actions that must be made now and in the future.

## ANALYSIS

The purpose of the next part is to outline the domestic and international measures done to combat the threat posed by climate change. The section examines the changes that have occurred in India since the International Solar Alliance (ISA) was founded in 2015. After doing the same, the research will also take into account European and Asian initiatives that have had a significant influence on combating climate change.

## CLIMATE ACTION AND STEPS TAKEN IN INDIA

Being one of the environmentally varied countries has not benefited India; rather, a recently released research indicates that, if current patterns continue, the country may see an increase in average annual temperature of 4.4 degrees Celsius by the end of 2100.<sup>13</sup> According to the report, this is anticipated to have a significant impact on the agricultural sector and has issued a warning that certain crops, such as rice, maize, wheat, and others, on which the majority of Indians depend, may even see a decline of 7 to 10%. If this is accurate, India may experience both a food crisis and population growth at once. The phenomenon is not normal, though new to the subcontinent, where water levels have been steadily rising since 1960s. Accompanied by the Himalayan glaciers' consistent retreat throughout the same period. Local organisations have urged a comprehensive strategy that not only addresses carbon emissions but also protects water supplies, agricultural products, and other resources in order to address the massive issue that continues to elude all such efforts. The advancements that have occurred since the International Solar Alliance will be covered in this section.

### *Investment in Solar Energy*

Since the Paris Agreement was signed in 2015, India has been at the centre of a global solar revolution, and opportunities have opened up that might lead to a switch to solar energy by the end of the target year, 2022.<sup>xi</sup> The solar power drive has experienced both success and setbacks, but it has still been a significant step toward the urgently needed switch from dirty, fossil fuels to clean, green energy sources. Solar energy expenditures have increased significantly, but at 81 GW, they are still far behind the nearly 300 GW of electricity produced by fossil fuels.

### *State-Level Developments*

Despite its lofty pledge, it looks that India will surpass its goal by the end of 2022. Even though there are many solar plants in India's Western and Southern areas, the recently installed solar-powered grid in Rajasthan, which now has a basic capacity of 25 GW, is anticipated to reach its full 50 GW capacity by the end of 2021, which equals nearly one-third of the 2022<sup>xii</sup> goal. Additionally, there are many plants with a combined capacity of 2.5 to 5 GW, bringing the state's total capacity to 70 GW.<sup>xiii</sup> However, governments in other states have correctly recognised the danger posed by thermal power plants, which has prompted them to pursue a

two-pronged strategy, namely, increasing the reach of solar or clean energy stations while concurrently aiming to reduce fossil fuel-based plants. To support this strategy, the Gujarati government has chosen to scrap the process of renewing licences for power stations that have been producing electricity using fossil fuels. The amount of energy produced is predicted to decrease by 7 to 12%<sup>xiv</sup> as a result, while alternative energy sources like solar and hydropower are predicted to generate 13 to 17 percent of the state's total energy needs, leaving the government with extra energy that can be sold for profit.<sup>xv</sup>

Similar advances have taken place in southern India, where the climate is thought to be better for solar energy, at a decent location, if not better. One of the most important advances occurred in Tamil Nadu, when one of the biggest solar plants in India was made possible by a Public-Private Partnership effort. In addition to its potential, the plant is anticipated to need the least amount of maintenance. Furthermore, it is anticipated that the plant would totally replace fossil-fuel based electricity within the next few years, with enough supply for about 125,000 families in the region.<sup>xvi</sup>

### ***Initiatives by the Union Government***

When compared to its forerunners, the United States and China, India is on the verge of becoming the third nation to reach the 10 GW threshold in a very short period of time. However, the epidemic that is still going on has put the work on hold for 4 to 6 months before it can be continued at a much lower capacity. However, recent initiatives in cooperation with the private sector and other states have led to a 10% decrease in greenhouse gas emissions. 20 The union government has accelerated the green energy movement by providing rewards and subsidies to private players that are prepared to establish solar power facilities and create jobs for residents of that area.<sup>xvii</sup>

A delay brought on by the pandemic has delayed India's prediction of fewer emissions till the end of 2030, even though current projections suggest India is likely to surpass the goal energy output from renewable resources by mid-2022. Furthermore, according to forecasts, 65% of all energy will come from solar sources, with the remaining 5% coming from other unusual sources like hydroelectric power plants, windmill energy, mechanical devices used by small farmers at the moment, etc. Even while the statistics reflect healthy development, the governments have neglected to instal surveillance panels in earthquake- and flood-prone



locations, among other things. Appointing individuals tasked with identifying places that may be likely to have soil erosion is one potential remedy for the problem.

In addition, observatories already installed in nation's dams would be a practical choice going ahead for monitoring rising sea levels, particularly for flood-prone regions of Tamil Nadu, Odisha, and West Bengal.

## **CLIMATE ACTION AND STEPS TAKEN IN OTHER COUNTRIES**

Despite the fact that the International Solar Alliance is a relatively young organisation, nations in Asia and Europe have started addressing climate change even before the organisation was founded in 2015. An overview of the climate change programmes of France, the United States, and New Zealand is provided in this section.

### ***In New Zealand***

Environmentalists from New Zealand and Europe support New Zealand's climate change strategy, which has been rated as one of the most practical measures. One of the main goals of the policy is to cut emissions by 30%, which is not only in line with the 2015 Paris Agreement but also anticipates 2025 as the target year as opposed to the program's 2030 goal. The national cabinet has updated the Climate Change Act, 2019, which aims to lower emissions from the industrial and agricultural sectors, in addition to a number of other programmes. Additionally, the aforementioned amendment puts forward a practical review procedure in an effort to advance realistic objectives by the end of the targeted year 2015, which anticipates a zero-carbon economy.

### ***France***

The International Solar Alliance, which was originally an Indo-French idea, gave the European Council high expectations that France would become the hub of green energy, at least in Europe. However, a number of internal and external reasons have repeatedly slowed down the French government. Another issue that has damaged France's reputation across Europe shows that the French government authorised projects that directly increase carbon emissions. Despite using comparatively less coal than other countries to satisfy its energy needs, France's

emissions report indicates that the target set for the year 2018–19 was not met, which has expanded the gap between expectations and reality even more.

In addition, a bold but hurriedly enacted policy that mandates charging cars powered by carbon fuels was met with large street protests in Paris, which has only made matters worse. A comprehensive strategy must be implemented to address this, including subsidies for individuals wanting to move from carbon-powered to electric vehicles.<sup>xviii</sup>

## USA

The acts of the outgoing head of state, President Trump, have disappointed international leaders, especially third world countries that depend on the US for loans in order to fund such clean-energy initiatives. The US is one of the most looked upon nations for nearly any global policy choice.

The press secretary made a number of statements, but the only solace was a goal of a 19% reduction in emissions by 2025, which amounted to nothing in terms of the Paris Agreement's regulations. However, given the current state of affairs, President-elect Joe Biden is anticipated to rejoin the Paris Agreement in 2015, which will be followed by a number of changes to their approach to climate change.

## CONCLUSION

After briefly analysing the ambitious strategy in Asia and the performance of the largest economies in Europe and North America, it can only be concluded that these regions need to improve if they want their neighbours to follow suit. India, on the other hand, has managed to outperform other economies while facing several hurdles, not just in terms of investment but also in terms of public engagement and awareness.<sup>xix</sup> Even though the national capital and numerous other important cities in India have had poor air quality, people's awareness of the issue and a large decrease in firecracker use have helped the days after Diwali see somewhat better air quality. The attention needs to move to increasing sea levels, therefore climate change initiatives in India and overseas shouldn't be limited to the field of renewable energy. In order to utilise the rising water levels for drought-prone areas, a number of modifications are needed to their water policy. The attention needs to move to increasing sea levels, therefore climate

change initiatives in India and overseas shouldn't be limited to the field of renewable energy. In order to utilise the rising water levels for drought-prone areas, a number of modifications are needed to their water policy. 29 Additionally, there are many arid, <sup>xx</sup>drought-prone locations in both India and the US where drinking water is becoming scarce. For residents of these places, Israeli filters may provide a quick fix. These water filters have the capacity to transform brackish water into drinkable water, while being pricey given India's efforts in the field, and a prospective alliance might provide some relief in both of these countries. After a few years of planning and implementation, India appears to be performing better in the area of green energy than many other G7 and G20 nations, and it can show the way forward by monetizing its plan, which will help the struggling economy while also achieving the objectives set forth by the International Solar Alliance.

## ENDNOTES

<sup>i</sup> Mohandas Karamchand Gandhi.

<sup>ii</sup> *Sustainable Development*, IISD <https://www.iisd.org/about-iisd/sustainable-development>.

<sup>iii</sup> Protect India's Forests and Urban Green Spaces, says India's Climate Change Report

<sup>iv</sup> Sustainable Development, what it is? Definition, History and Evolution, importance and examples, youmatter, <https://youmatter.world/en/definition/definitions-sustainable-development-sustainability/>.

<sup>v</sup> Sustainable Development, what it is? Definition, History and Evolution, importance and examples, youmatter, <https://youmatter.world/en/definition/definitions-sustainable-development-sustainability/>.

<sup>vi</sup> United Nations (2017) Resolution adopted by the General Assembly on 6 July 2017, Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development

<sup>vii</sup> Climate Action: Why it matters? UNITED NATIONS DEVELOPMENT PROGRAMME, [https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/13\\_Why-It-Matters-2020.pdf](https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/13_Why-It-Matters-2020.pdf).

<sup>viii</sup> Judson Jones, Brandon Miller, How our planet has changed over time, CNN, <https://edition.cnn.com/interactive/2019/09/world/climate-change-before-after/>.

<sup>ix</sup> Id

<sup>x</sup> Sustainable Development Goals, United Nations, <https://www.un.org/sustainabledevelopment/climate-change/>.

<sup>xi</sup> Bilal Abdi, India's top 10 states by installed solar power capacity, The Economic Times

<sup>xii</sup> Shaura Bajaj, Rajasthan solar policy sets target for achieving 25 GW capacity by 2020-21, MERCOM, <https://mercomindia.com/rajasthan-solar-policy-target-achieving-25gw-capacity/>.

<sup>xiii</sup> Id

<sup>xiv</sup> Express News Service, Gujarat govt not to issue permits for new power plants, Financial Express

<https://indianexpress.com/article/india/gujarat-coal-thermal-power-plants-vijay-rupani-solar-carbon-emission-adani-clean-energy-5975547/>.

<sup>xv</sup> Id

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<sup>xvi</sup> World's Largest Solar Power Plant Launched in South India, Financial Tribune, <https://financialtribune.com/articles/energy/55173/world-s-largest-solar-power-plant-launched-in-south-india>.

<sup>xvii</sup> Country Summary: India, Climate Change Tracker, <https://climateactiontracker.org/countries/india/>.

<sup>xviii</sup> Louise R, France's 'Imported Emissions' are 70% higher than domestic CO2 output, reports find, EURACTIV, <https://www.euractiv.com/section/energy/news/frances-imported-emissions-are-70-higher-than-domestic-co2-output-report-finds/>.

<sup>xix</sup> <https://www.financialexpress.com/industry/technology/what-is-galmobile-how-israeli-technology-netanyahus-fascinating-jeep-can-solve-water-woes-in-modis-india/753243/>.

<sup>xx</sup> <https://theprint.in/environment/morning-after-diwali-delhi-air-quality-severe-but-better-than-last-years-relief-likely/544876/>.

