

Steering Collective Action Against Climate Change Crisis

Dr. Santosh Bharti

Associate Professor, Department of English, Delhi College of Arts and commerce

Affiliation: Delhi University, bharti.jnu@gmail.com, Delhi College of Arts and College, Netaji Nagar, New Delhi, India

How to cite this article: Santosh Bharti (2024) Role Of Digital Marketing In Creating New Entrepreneurs: A Case Study In Southern Odisha. *Library Progress International*, 44(3), 14500-14505.

ABSTRACT

This research paper will look into the phenomenon of climate change and the role of individual nations as well as international platforms on addressing this crisis before it escalates into deep, irreversible damages to planet earth. The reported cases of rampant forest fires, flooding, and famines in developed and developing countries across the globe have underlined once again the severity of challenges before us. In the United Nations-led COP26 summit, held in Glasgow, Scotland during October 31- November 13 this year, different countries have reiterated their commitment to reducing carbon gas emissions, although the target years offered by major countries like the USA at year 2050, China year 2060 and India at year 2070 makes one wonder if the targets are realistic enough to arrest global warming and the extreme weather patterns that arise from it. While the efforts of countries like India to switch to renewable energy for cooking and transportation purposes via electricity and hydrogen fuels are appreciated, it remains to be seen how effective they would turn out to be considering higher than expected spikes in average temperature world wide.

Also differences between the developed and developing countries on the cost of implementing zero-carbon emissions measures on local economic structure and, thereby, associated human welfare has led several developing countries, including India and China, to demand compensation from the industrially developed nations as despite housing smaller populations, they have been major contributors to global warming. It is important that an agreement is reached on this between the two groups to decisively implement the changes in the nick of time since an inter-governmental panel IPCC has said in its Sixth Assessment Report, "Climate Change 2021: The Physical Science" that no more precious time can be lost in 'prevarication' or in finding new excuses not to act. It has urged all the countries to decarbonise their economies to reduce green house gas emissions below the 2010 levels to 45 to 50 per cent by 2030 while reaching zero emission levels by 2050.

Developed countries have a lot to contribute besides offering financial compensation to poorer nations; with their advanced research and development sector they must also come up with innovative carbon-capture technologies to clean the environment and other innovative techniques to help lesser developed countries to transition to a decarbonised economic model. Despite the efforts towards a smooth transition, it would be realistic to expect major changes in human behaviour that would have a telling effect on general human welfare in the near future. The researcher will trace the efforts of global community leaders towards evolving effective social and economic policies for such a transition.

Keywords- Climate Change Crises, Climate Collapse, Role of Developed Countries, India, Mitigation, Policy making and Individual Responsibility.

The Climate Change Crises

The United Nations-led Intergovernmental Panel on Climate change (IPCC) has released the Emissions Gap Report 2021, *The Heat is On*, which reveals that economic reforms towards addressing the climate change are slowing down markedly in individual nations despite the promises made by their political leaders in year 2015 at

Paris Agreement which is a legally binding international treaty signed by 192 nations, including the 27-nation economic and political block of European Union. The slackening of pace in executing the necessary reforms is worrisome for the scientists already alarmed by acceleration in global warming. Anthropogenic factors i.e. the pollution caused by human dietary, social and economic activities are the prime reason for excessive heating of Earth, and these if not controlled well in time, can endanger the survival of not just humans, but also other species via sudden and intense weather patterns causing droughts, flooding, hurricanes and extreme temperature variation during summers and winters. According to United Nation's Environment Programme (UNEP) Executive Director Inger Anderson, concerted and proactive political willpower is the need of the hour as the climate change is no more a problem in future, but a phenomenon whose devastating impacts we are experiencing across the globe now. The IPCC climate science survey which has been approved by governments of 195 nations, says that fossil-fuel emissions are driving unprecedented planetary changes that threaten the entire ecosystems on which human beings and other species rely on for sustenance, and that these changes could spur catastrophic disasters impacting the very life on Earth. The survey indicates that unless countries seriously adhere to an unconditional commitment towards fulfilling nationally determined contributions (NDCs) for reducing greenhouse gas emissions, the world could heat up by about three degree Celsius by the end of this Century. The IPCC scientists have issued a clarion call to the global political community for decisively and aggressively pushing in carbon emissions cutting measures in the economic structure of their countries by launching non-hydrocarbon-based, renewable energy fuels to lessen the accumulation of CO₂ in Earth's atmosphere and, thereby, reduce the extent of global warming.

The report, which is a part of the UNEP's 12th Edition, says deepening of extreme weather patterns – which have been attributed to the build-up of anthropogenic greenhouse gas (GHG) emissions in the atmosphere – are adversely impacting local populations around the world by killing or displacing them, and triggering huge economic losses. According to the UNEP, the odds are one to one that the planet will be warmer by 1.5°C in the next two decades, and unless rapid, large-scale reductions are made in GHG emissions on an immediate basis, the goal of restricting the heating of planet to 1.5°C or even 2°C by the end of 21st Century may become impossible to reach (UNEP 2021:16)¹. The UNEP Executive Editor Inger Anderson claims that the climate action so far has been limited to “weak promises, not yet delivered”. “Even the strong pledges by nations to cut down on carbon emissions would do no more than shave off 7.5 per cent of the predicted 2030 emissions, whereas reductions by 30 per cent are required to slow down global heating to 2°C and 55 per cent for 1.5°C”, says Anderson. (UNEP 2021: 15).

Despite the tall targets and slow pace of reforms in phasing out hydrocarbon fuels from economic structure, the world had an unlikely aide in Corona Virus epidemic: the extensive lock-downs during much of the year 2020 and first half of year 2021 on account of Covid-19 pandemic led to a global dip in fossil fuel emissions to up to 5.4 per cent. Although data is not yet available for all the GHG emissions in 2020, the reduction in GHG emissions is anticipated to be smaller than the drop in gases released from burning of hydrocarbon fuels (UNEP 2021: 17). With global warming manifesting in erratic and severe weather patterns across the globe, the Intergovernmental Panel on Climate Change (IPCC) has shared its observations in a report, *AR6 Climate Change 2021: Physical Science Basis*”, published in August 2021: the report documents the latest updates in the scientific knowledge about the phenomenon of global warming, as well as the new assessments and projections on its trajectory in the foreseeable future. It confirms what we have feared all along: global warming is creating real, drastic and long-lasting changes in the natural ecosystem, and that human beings can no longer ignore it considering the huge costs severe weather patterns impose on the safety of human lives and their overall well-being. The report exhorts significant countries like the United States, China and India to not wait for the ideal conditions before introducing the necessary reforms: in the absence of resolute, clearly defined political agenda in ushering in the necessary changes in transportation, electricity production and, in cooking and heating of homes, it questions what it sees as hollow promises of reaching net zero target in carbon emissions by year 2050. The net zero plan involves developed countries like the United States of America, and China to keep their GHG emissions lower than what

¹ United Nations Environmental Programme (UNEP), “Emissions Gap Report 2021: The Heat is on- A World of Climate Promises not yet delivered”, Nairobi. Available at <https://www.unep.org/resources/emissions-gap-report-2021>

could be cleaned by carbon capture technologies or their terrestrial carbon sinks of oceans, atmosphere, natural soil and forests.

In the United Nations-led COP26 summit, held in Glasgow, Scotland during October 31- November 13 this year, different countries have reiterated their commitment to reducing carbon gas emissions, although the deadline offered by major countries like the USA at year 2050, China year 2060 and India at year 2070 raise questions if these targets are realistic enough to arrest global warming and the extreme weather patterns that arise from it. While the efforts of countries like India to switch to renewable energy for cooking and transportation purposes via electricity and hydrogen fuels are appreciated, it remains to be seen how effective they would turn out to be considering higher than expected spikes in average temperature world wide.

The COP26 summit was crucial for its focus on accelerating global action, especially individual nations' Nationally Determined Contributions (NDC) towards mitigating global warming and adaptation to a new world of erratic weather conditions. Under the NDC climate action plan, individual countries are to discuss every five years their NDCs and set aggressive and realistic targets for mitigating the GHG emissions that contribute to global warming and cause severe climatic conditions. The summit, which is a natural progression of Paris Agreement (2015) which has been ratified by 191 countries, has member countries discuss the status of their NDCs in terms of the progress made towards meeting the targets; yet what makes the collective action inconsistent is the varied levels of commitments towards achieving the set goals in terms of effective policies and their execution on account of limitations of adequate funding, poor capacity-building skills, and domestic political will.

The economic slow down on account of Covid-19 pandemic has put further constraints on implementation of NDCs. This situation is worse for low-income or still developing countries where the population aspires to achieve the human well-being levels at par with those of industrially and economically developed countries. The popular resistance against uprooting of the conventional and well-established hydrocarbon fuel based economic structures, as well as the realisation that the developed nations despite their small populations have contributed a lot more towards the GHG emissions have made it difficult for leaders of the developing nations to introduce the necessary but tough reforms at home. They, however, can be helped by the industrialised nations towards making the necessary transition via grant of financial aid and innovative technology towards reducing the methane gas emissions and towards helping the population adapt to extreme weather patterns: financing transition to low-carbon economy as well as mitigating climate change crisis by sharing innovative technology and tools to adapt to erratic weather conditions on account of global warming will protect both lives and livelihoods in the developing countries which incidentally also host larger populations.

India was one of the member nations at the COP26 summit which discussed their NDCs especially after the Corona Virus pandemic during year 2020, as well as set tougher goals for reducing emissions by 2030.

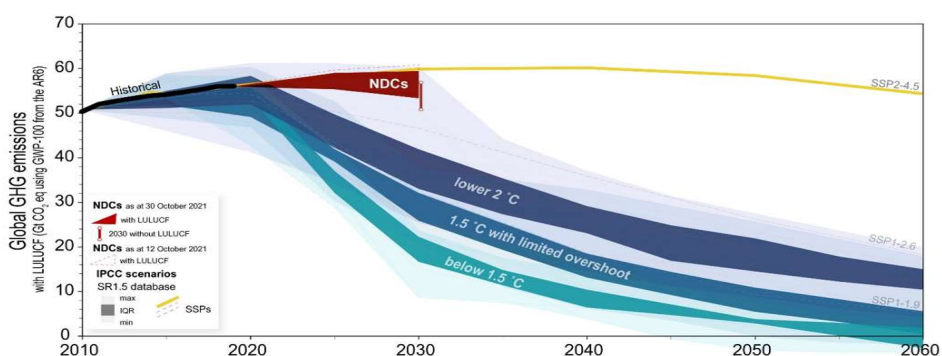


Figure taken from UNFCCC²

² United Nations Climate Change, (2021), "COP26: Update to the NDC Synthesis Report", United

The above chart reveals an informed trajectory of global emissions from the benchmark year of 2010 to year 2060 under various scenarios as measured by the Intergovernmental Panel on Climate Change Special Report on the basis of agreed NDCs. It shows that if all the 193-member states deliver the targets agreed under the NDCs, the GHG emissions in 2030 would still exceed the emission levels in year 2010 by above 14 (13.7) per cent. According to the IPCC estimates, CO₂ emissions globally must fall 45 % by year 2030 to limit the increase in planet heat to no more than 1.5 °C, while a 25 % reduction by year 2030 is necessary to restrict the global warming to 2°C. In the scenario where GHG emissions are not reduced by year 2030, they would need to be lowered drastically and at a higher cost to human well-being to adjust for the delay towards reaching net zero emissions. There are many developing countries whose NDCs are ambitious but which require substantial financial and technological support from the advanced nations for their realisation.

India's Role in addressing Climate Change

India has pledged to reach net zero carbon emissions by year 2070 via implementation of a five-point (Panchamrit) action plan which will entail the country steadily increases the share of renewable energy resources in its fuel basket for electricity generation, transportation and for cooking and heating purposes. Quoting Prime Minister Narendra Modi about the 'Panchamrit', he proposed: "First- India will take its non-fossil energy capacity to 500GW by 2030; Second, India will meet 50% of its energy requirements from renewable energy by 2030; Third, India will reduce the total projected carbon emissions by one billion tonnes from now till 2030; Fourth, by 2030, India will reduce the carbon intensity of its economy by less than 45%; Fifth, by the year 2070, India will achieve the target of Net Zero". These "Panchamrit", he claimed will be an "unprecedented" contribution of India to climate action (Modi: 2021)³.

Although Climate Change is a global phenomenon, its effects are manifest in individual nations in the form of extreme climatic fluctuations, and the resultant natural calamities like floods, famines, hurricanes, and extremely short but sharp spurts of summers and winters. It also has implied costs in the form of losses to human welfare conditions via damaged crops, excessive or very little rain fall leading to a change in water-table, and loss of lives, property and livelihood on account of sudden flooding, snowfall, hurricane movement or famine. Unlike industrialised nations which have smaller populations, more financial muscle and enhanced technological capability and resources to address any natural or man-made crisis, developing countries suffer from high levels of poverty, large and poorly educated populations, and insufficiently developed social and economic structures. This along with ill-equipped indigenous technology and R&D sectors impairs their ability to shield the local population from the impact of a crisis. Like any other country, India's Climate Change policy is shaped by its international and domestic compulsions which are articulated through its two key documents-National Action Plan on Climate Change (NAPCC) adopted in year 2008, and India's target Nationally Determined Commitments (INDC) submitted to the UN Framework Convention on Climate Change (UNFCCC) in year 2015. While the NAPCC reflects India's domestic priorities via incorporation of its view on ecologically sustainable development and framing of policies to implement these objectives on ground, the INDC states India's Climate Change action plan following the Paris Climate Change summit held in December 2019. NAPCC reflects the national political awareness that steering action against Climate Change crisis is a multi-faceted approach that requires synchronisation in several inter-related domains like conservation of India's natural heritage by preserving its forests, mountains and other ecosystems, maintenance of urban green spaces, making significant

Nations Framework Convention on Climate Change. Available at <https://unfccc.int/news/cop26-update-to-the-ndc-synthesis-report>

³ Modi, Shri Narendra (Prime Minister, India), *National Statement by Prime Minister Shri Narendra Modi at COP26 Summit in Glasgow*, 2nd November 2021. Ministry of External Affairs. Government of India. Available at <https://www.mea.gov.in/Speeches-Statements.htm?dtl/34466/National+Statement+by+Prime+Minister+Shri+Narendra+Modi+at+COP26+Summit+in+Glasgow>

changes in the key sectors of energy generation and preservation, infrastructure and industries, and the farming sector to ensure a sustainable development- based economic model in the long run. In fact, the United Nation has acknowledged several of India's inter-related policies and coordinated actions via adoption of 17 Sustainable Development Goals (SDG). India's National Mission plan is oriented towards promoting harnessing of Solar Energy, enhancing energy efficiency across industries, offices and household spaces by creating mechanisms for reducing the wastage of energy across various inter-related sectors, creating eco-friendly, sustainable and energy-efficient infrastructure in transportation and in designing of households and offices in urban areas, conservation of water, preservation of fragile Himalayan and other natural ecosystems, increasing the forests' footprint across villages and cities by creating more green spaces, promoting organic and sustainable farming practices, and development of a strategic Knowledge-based service industry that is able to generate new employment opportunities to absorb the surplus labour while creating cheap but high-value technological solutions to address the concerns of local trades and industries⁴.

Low Hydrocarbon emissions and Energy Security are two equal goalposts for the NAPCC to achieve its objective of addressing climate change crisis: India is already making a shift from its reliance on fossil fuels to clean and renewable sources of energy like solar and wind power, and nuclear energy in electricity production, and new transportation policies that favours electric vehicles in passenger and commercial space by offering incentives to manufacturers of electric vehicles, and enforcing stricter pollution-control emission norms for automobile manufacturing companies that produce petrol and diesel-based passenger and commercial vehicles. India intends to convert all the vehicles in the country to electricity-powered engines by year 2030. It also seeks to reduce its reliance on fossil fuels for power generation by laying emphasis on tapping of solar power, hydro-power and nuclear energy: such a shift is likely to augment India's energy security while reducing polluting fossil fuel emissions to prevent further risks of global warming. India describes this "co-benefit approach" as integral to its Climate Change strategy. While keeping its focus on harnessing of its own resources in a manner that prevent release of hydrocarbon pollutants, India through NAPCC acknowledges that any decisive action on Climate Change can not be steered alone: it must be driven in sync with simultaneous, collective efforts as part of a global Climate Change regime to effect deep, long-lasting changes in the volume of hydrocarbon emissions, and thereby, reducing the scale of green house effect.

In the run-up to the Paris Climate summit, and under the leadership of Prime Minister Narendra Modi, India has decided to adopt a pro-active and forward looking approach in its climate change strategy: This is reflected in the country's INDC. India is relying on its ancient civilisational values of humans living in synergy with nature to help push several key social and economic reforms: it has committed to goals that are unprecedentedly ambitious for a developing country. According to the National Mission on Enhancing Energy Efficiency, the energy intensity in India's economic growth by year 2030 will decline by 33-35% in comparison to year 2005, which means energy expenditure will be significantly lower for every dollar earned by India as part of its GDP growth. As one of world's largest emerging economy, India already has a large energy footprint, and any changes on account of energy efficiency reforms would contribute significantly towards the global fight against the climate change. INDC has set a target of generating 175 GW of renewable energy by year 2030 on the basis of a successful National Solar Mission, and the indications are that this target may well be met a decade early. India may increase in its renewable energy output target to 227GW by year 2030: considering that the country has already managed to reach the production capacity of 21 % of the set target, it is quite probable that another goalpost of Renewable Energy contributing 40% of India's total electricity output may be achieved several years early on. To reduce the component of coal-based thermal power in its energy basket, India has imposed high cess duty on coal to the tune of Rs 400 per tonne, the proceeds from which will be diverted to Clean Energy Fund. The country has also decided to not commission any new thermal plants which are not of the most efficient ultra-supercritical category⁵.

⁴ Saran, Shyam (2019), "India's Climate Change Policy: Towards a Better", Ministry of External Affairs, Government of India. Available at [https://mea.gov.in/articles-in-indian-media.htm?dtl/32018/Indias Climate Change Policy Towards a Better Future](https://mea.gov.in/articles-in-indian-media.htm?dtl/32018/Indias%20Climate%20Change%20Policy%20Towards%20a%20Better%20Future)

⁵ Saran, Shyam (2019), "India's Climate Change Policy: Towards a Better", Ministry of External Affairs, Government of India. Available at [https://mea.gov.in/articles-in-indian-media.htm?dtl/32018/Indias Climate Change Policy Towards a Better Future](https://mea.gov.in/articles-in-indian-media.htm?dtl/32018/Indias%20Climate%20Change%20Policy%20Towards%20a%20Better%20Future)

Conclusion

At international level, India has played a prominent role towards ensuring success of the Paris Climate summit: this was evident in Prime Minister Narendra Modi's efforts towards pushing for adoption of the landmark Paris Agreement. India's proposal for setting up an International Solar Alliance for promoting solar power has also been appreciated worldwide.

Overall, India is striving for a clean energy future for its 1 billion-plus population: it is successfully drawing up on its ancient civilisation values to push sweeping socio-cultural and economic reforms to promote reforestation, and new clean energy-friendly market policies. The policy interventions under its Energy Conservation Act regulate 15 energy-intensive industries, while the Energy Conservation Building Code is applicable on creation of new urban infrastructure. Already 32 states in India have framed their own policies and are implementing their State-specific Action Plans on Climate Change(SAPCC). In addition to this, there is an active and vibrant Indian civic society which is disseminating more and more awareness on the threats of Climate Change and how individuals can make a difference in alleviating this threat.

India is expected to emerge as a model nation for other countries for its proactive engagement towards addressing climate change crisis at both domestic and international level. Individual countries must rise up to meeting this global existential challenge which is likely to impact all in varying ways and degrees. Any failure at individual nations level or as global international community would condemn the humanity to a dangerous future of life uncertainty. Data shows that the young generation is more aware of the crisis at hand, and it seems likely that they would play a decisive role in every nation's efforts towards steering action against the climate change crisis.

REFERENCES

Harris, Paul G. (2009), *The Politics of Climate Change: Environmental Dynamics in International Affairs*, London: Routledge.

Hulme, Mike (2009), *Why We Disagree about Climate Change: Understanding Controversy, Inaction and Opportunity*, UK & New York: Cambridge University Press.

Intergovernmental Panel on Climate Change (2001) "Climate Change 2001: the Scientific Basis", Intergovernmental panel on Climate Change: Cambridge University Press:1-873

United Nations Environmental Programme (UNEP) (2021), "Emissions Gap Report 2021: The Heat is on- A World of Climate Promises not yet delivered", Nairobi. Available at <https://www.unep.org/resources/emissions-gap-report-2021>

United Nations Climate Change, (2021), "COP26: Update to the NDC Synthesis Report", United Nations Framework Convention on Climate Change. Available at <https://unfccc.int/news/cop26-update-to-the-ndc-synthesis-report>

Modi, Shri Narendra (Prime Minister, India), *National Statement by Prime Minister Shri Narendra Modi at COP26 Summit in Glasgow*, 2nd November 2021. Ministry of External Affairs. Government of India. Available at <https://www.mea.gov.in/Speeches-Statements.htm?dtl/34466/National+Statement+by+Prime+Minister+Shri+Narendra+Modi+at+COP26+Summit+in+Glasgow>

Saran, Shyam (2019), "India's Climate Change Policy: Towards a Better", Ministry of External Affairs, Government of India. Available at <https://mea.gov.in/articles-in-indian-media.htm?dtl/32018/Indias+Climate+Change+Policy+Towards+a+Better+Future>