

## Review Article

## Climate Politics: Contemporary Trend to Achieve Energy Security and Environment Sustainability – Case Studies of INDIA and BRAZIL (1972 To 2018).

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**Abstract:** Every Nation of the world gigantic or diminutive strives to be energy sovereign, since the whole economy of any given country runs on the two wheels of Energy and Environment. The fear of depletion and absence of varied sources of energy is the fear of cold winters for the Northern and Southern countries advanced as well as developing economies of the world. Energy Security is everything: economies, defence and regime survival wrapped into one, topped up with the huge looming environmental trepidation. However, Energy use and environmental damage are inversely linked to each other. Economic growth needs energy. Competition and innovation is the key to meeting this need. On the other hand rampant use of fossil fuels, massive scale of deforestation has led to a chain effect called 'Climate Change'. Thus the number of CoP held year after year only makes the vague future more apprehensive. Countries like Brazil have initiated their Green Energy Programs with introduction of ethanol after the oil embargo of 1972-73. India is yet to follow suit with its huge reliance on oil imports. The Oil age is drawing to an end very soon, with no alternative left than to look to other alternate sources of energy. Seven out of eight of the largest corporations of the world are oil companies. This warrants the study on energy security and environmental issues to be dealt by countries like India and Brazil which are a home to the world mega diversity areas like the Amazon forest, the Western Ghats and the Himalayas.

**Keywords:** Energy Security, Environmental Politics, Climate Change, Energy Independence, Oil Embargo, Oil Age, Green Politics and Debt-for-nature.

This paper makes an attempt to bring out the similarities and disparities between the two nations namely India and Brazil on the lines of Environment and Energy Security Issues. As was evident right from the time the first Global environmental summit that took place in Stockholm in Sweden that the world was moving at a great pace towards environmental deterioration. At that time countries like India and Brazil with their respective heads of state made their presence felt at the Summit. Today, Brazil known as an emerging country, a newly industrialized country (NIC) and as a member of the BRICS economies shares a prominent position along with India in the climate politics by playing host twice for the World Summits on Environment where climate change was the main agenda. Climate politics is now gaining significance as seen in the European Union countries like Finland where voters have cast their ballot on 21<sup>st</sup> April 2019 and climate change dominated the campaign over shadowing other topics.

The focus of this paper is to put forth the challenges and opportunities for sustainability in relation to environment and energy in the less economically developed regions of the world. Fundamentally, this is because it is here that the majority of the world's poor reside. This is not to suggest that sustainability is mostly a problem for the poor. Indeed, most pollution, for example is a result of affluence, not poverty. Furthermore, the prospects of sustainable development in any one location as in the past are shaped by forces and decision-making which are often situated at great distances away such that it is impossible to consider the developing world in isolation from the wider global community. Similarly the worst affected countries by climate change are the island nations like Seychelles. Speaking from more than 400 feet below the surface of the Indian Ocean, Seychelles President Danny Faure made an impassioned plea on Sunday

Quick Response Code



Journal homepage:

<http://www.easpublisher.com/easjehl/>

Article History

Received: 15.06.2018

Accepted: 09.06.2019

Published: 24.07.2019

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14<sup>th</sup> April 2019 to protect the world's seas. In a first-ever live speech from an underwater submersible, Faure called the oceans the 'beating blue heart of our planet'. He further added, 'it keeps the planet alive, it keeps us alive, and it is clear to me that it is under threat like never before'. The Seychelles, a chain of islands off eastern Africa, faces an existential threat from climate change and rising sea levels. The country, along with other small island nations, is expected to bear the brunt of global warming, including the loss of fresh water, land erosion, dying coral reefs and the increased frequency of extreme weather events.<sup>1</sup> Back home in India, Mousuni Island of the Bay of Bengal, which is one of the last outposts of Indian democracy, nearly 6,000 out of 28,000 voters have a bizarre problem- they have a voter card, but many have lost forever, the plot of land that is mentioned on their cards as their permanent address. On Sunday 19<sup>th</sup> of May 2019, residents of this island in the south-western part of the Sunderbans voted despite knowing that no politician has a solution to their unique problem.<sup>2</sup>

When one looks at the past records of environment summits and energy security issues with specific reference to India and Brazil, they have evolved around the early period of 1970's during the political tenure of President Emilio Medici (1969-74) and Prime Minister Smt. Indira Gandhi (1966-1977). It was at this time that the world witnessed the first Environment Summit in Stockholm in Sweden which gave birth to the UNEP (United Nations Environment Programme). Back home in India the famous Chipko movement of 1970 also known as the Forest Conservation movement took its birth during this period in Reni village of the Chamoli district of Uttarakhand.

During the tenure of President Joao Figueiredo (1979-1985) and once again Prime Minister Smt. Indira Gandhi ((1980-1984), the decennial meet took place in Nairobi- Kenya, without much accomplishments. However at this juncture massive deforestation continued in the great Amazon rainforest and in India too, which paved the path for the 1992 Rio de Janeiro (Brazil) Environment summit thus giving a philanthropic launch to the UNFCCC (United Nations Framework Convention on Climate Change) and the famous Agenda 21 during the tenure of President Fernando Collar (1990-1992) and Prime Minister P.V. Narasimha Rao (1991-1996) in India.

A decade later the 2002 Johannesburg (South Africa) Environment summit was hoisted when Fernando Henrique Cardoso (1995-2002) was the President of Brazil and back home Shri. Atal Bihari Vajpayee(1998-2004) was heading the nation, subsequently the Rio+20 2012 Summit also called the '**People's Summit**' was attended by two hundred civil society groups took part in the nine day event where '**Sustainable Energy For All**' was the issue that received the greatest personal attention. At this time Brazil was under the President ship of Dilma Rousseff(2011-2016) and in India under the leadership of Manmohan Singh(2004-2014). The UNCSD (United Nations Conference on Sustainable Development) 2012 had the nations come together to shape how we can reduce poverty, advance social equity and ensure environmental protection in an ever more crowded planet to get to the *Future We Want* which was the theme of the Summit. During these two decades the world had seen some big environmental changes, including rapid growth of population, land degradation and biodiversity loss. Thus 'come re-invent the world' was the call given to the People's Summit. All the above leaders played a very decisive environ-politic role in shaping the future of their respective countries.

However a closer look at Brazil today indicates its downward trend with the incumbent President Jair Bolsonaro slacking on the environment policies and the crucial role played by its former heads of state in leading Brazil to its present pinnacle. Whereas on the other hand the back home our incumbent Prime Minister Shri. Narendra Modi has forged ahead with all the fervour the efforts to bring about drastic changes in field of Environment and Energy, thereby been conferred the United Nations Top Environmental Award 'Champions Of The Earth' by UNEP in the Policy Leadership Category for his exemplary leadership in championing the cause of environmental conservation and mitigating climate change. His outstanding Vision, Actions and Mission included: International Solar Alliance, Elimination of single-use plastic initiatives in India, Contribution to Environment Conservation as the Chief Minister of Gujarat, India's efforts and leadership during COP21 which was deeply appreciated globally, Unprecedented growth in Renewable Energy and going a step ahead in discussing climate change and been an advocate of climate justice, which places a collective responsibility on the entire humankind to ensure that our future generations inherit a clean and green planet.<sup>3</sup>

#### **The Tie-up between Energy and Development:-**

We have come a long way from the first UN Environment Summit held in Sweden, than Nairobi and subsequently in Rio de Janeiro in Brazil. This UN Conference on Environment and Development (UNCED) of 1992 and its Agenda-21 barely mentioned energy's relationship to development at all. A decade later in the 2002 Johannesburg UN World Summit on Sustainable Development (WSSD), **Energy** was central to the world's development considerations.

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<sup>1</sup> The Times of India dated 15<sup>th</sup> April 2019.

<sup>3</sup> The Times of India dated 3<sup>rd</sup> October 2018.

Energy issues currently are very much at the focus of international environmental and development deliberations. On the other hand, **Energy crisis** can be defined as a great disruption in the supply of energy resources to an economy. Naturally, it will seriously affect the price situation. The 2012 Rio+20 summit also sought to put Energy on a higher dais keeping in mind the pressing issue of Climate Change and the subsequent rise in global temperatures due to the rapid usage of fossil fuels, The key to energy security lies in diversification. A wider approach is required that takes into account the rapid evolution of the global energy trade, supply-chained vulnerabilities, terrorism and the integration of major new economies into the world market.

#### **BRAZIL's Environmental Policy:-**

Brazil is probably the first developing country that initiated a programme of laying down laws that govern environment. In fact, the different states within Brazil too laid down specific laws in this regard. On 9 November 2009, Sao Paulo Governor Jose Serra signed Law No.13.798 the Política Estadual de Mudancas Climaticas or the State Climate Change Policy. The law commits the state to reduce its carbon dioxide emissions by 20 percent by 2020 using 2005 emissions as a baseline.<sup>4</sup> The environmental policy began to take shape only in mid 1970s. In 1973, the Special Secretariat for the Environment (SEMA) was created as an agency of the Interior ministry. The main task of SEMA was to establish norms for environmental protection and to curb some of excesses of the production sector. Environmental policy was strengthened only in 1981, with the enactment of Law 6938 which.<sup>5</sup>

#### **Energy Scenario: -**

Brazil is the 8th largest total energy consumer and 10th largest producer in the world. The U.S. Energy Information Administration (EIA) estimates that in 2013, Brazil was the eighth-largest energy consumer in the world and the third-largest in the Americas (North America, Central America, the Caribbean, and South America), behind the United States and Canada. Total primary energy consumption in Brazil has increased by more than one-third in the past decade because of sustained economic growth. The largest share of Brazil's total energy consumption is oil and other liquid fuels, followed by hydroelectricity and natural gas. Preliminary statistics show Brazil was the 10th largest energy producer in the world in 2013. In addition, Brazil has increased its total energy production, particularly oil and ethanol as a fuel has played a pivotal role in the Brazilian economy.

#### **INDIA's Energy Security Issues: -**

For some incomprehensible reason, energy security has traditionally not been a prominent issue on our radar screens. In fact even in the aftermath of the first major global oil crises of 1973, when the price of oil topped the US \$60 to a barrel mark, India did not wake up from her slumber. Today, energy dependent India imports up to 73 percent of her energy requirements. India is expected to grow by at least 6 percent every year for the next 10 years. This means that India's energy needs will grow annually at an average of 4 percent as against a global average of 2 percent by 2015, therefore, India will have to import 85 percent of her energy needs. India, already the 6<sup>th</sup> largest in terms of global energy consumption, along with China, Japan, and the US, will become one of the largest importers of oil and natural gas. Not until the middle of the last decade did the phrase 'energy security' found notable mention in our public discourse.<sup>6</sup>

However, Indian policy makers have initiated numerous policies to address India's growing energy needs. For example, India is pushing for the creation of 15-45 days of emergency reserves in Rajkot, Mangalore and Vishakapatnam. India is also diversifying beyond oil to access other energy resources such as nuclear power, coal, natural gas and renewable energy resources as well as stepping up exploration activities within its borders. However, this quest for energy security is being impeded by India's sometimes tense relations with energy suppliers, energy transit countries and energy competitors. For e.g., just as India and China have for centuries engaged in competition for leadership in Asia, the developing world and status on the world stage, so the need for energy security has now raised the possibility of further competition and confrontation in the energy sphere. India's tense relations with Pakistan also have an added dimension with the question of a gas pipeline from Turkmenistan or Iraq to India, which will have to traverse Pakistani territory. Nationalism and oil are proving to be a volatile mix. Resolving territorial disputes and improving relations with traditional adversaries will become increasingly important for India if it is to meet energy import needs by peaceful means.

India's case is critical, since the population projected growth is expected to rise from 1.2 billion to 1.5 billion by 2030 and a commitment to annual economic growth of 8 percent, India's emission could increase more than three times by 2030. India is setting targets. However, its arguments are the burden must fall on countries responsible for global

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<sup>4</sup> For greater details see Art. 32 (1).

<sup>5</sup> Baer, Werner ., 2008 (6<sup>th</sup> ed) The Brazilian Economy; Growth and Development, Colorado: Lynne Rienner publishers.p.337

<sup>6</sup> Surya Narain Yadav., 2010, Energy Security and Environment Sustainability, New Delhi, Global vision publishing house, pp.76-79.

warming, not developing nations only beginning to grow. India says it accounts for only 3percent of energy-related carbon dioxide emissions since 1890. India has said it does not believe the forecast of 2.7 degree C rise because there will be technological developments in the coming years that will curb the increase. India stresses on the urgent need for *Climate Finance* and it wants whatever accord comes out of Paris to be reviewed every 10 years; whereas, Brazil like the US, favours a five-year cycle.<sup>7</sup> However, back home India wants to switch to battery power by 2030.<sup>8</sup> In the field of solar energy Kurnool in Andhra Pradesh is the world's largest solar park with a capacity of 1,000MW. Meanwhile, signalling a faster transition towards electric vehicles, the government is expected to mandate the sale of only electric three wheelers from April 2023, while all new two-wheelers with engine capacity up to 150cc driving out of showrooms will have to be powered by electricity from April 2025.<sup>9</sup>

#### **Constraints on Future Energy Systems:-**

Prevailing geo-political dynamics (geopolitics constraint), Ever changing economic outlook(economical constraint), Financial and investment climate(financial constraint), Human capacity in developing countries(social constraint), Low capacity for technology innovation in developing countries(technology constraint), Who are the real financial beneficiaries of future energies, One Can't jump to renewable, but transition must be innovative given coal based economies like India. In the words of UN Secretary Gen. Ban Ki-moon, 'Achieving sustainable energy for all is not only possible, but necessary. It is the golden thread that connects development, social inclusion and environmental protection. Working together we can provide solutions that drive economic growth, expand equity and reduce the risks of Climate Change'. This paper concludes by stating that there exists a strong nexus between development, energy security, environment sustainability and climate change. The crucial role played by the heads of the state will go a long way in reshaping the energy-environment status of the countries involved.

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