

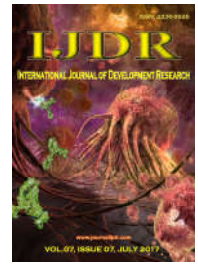


Available online at <http://www.journalijdr.com>

IJDR

ISSN: 2230-9926

International Journal of Development Research
Vol. 07, Issue, 07, pp.13626-13633, July, 2017



REVIEW ARTICLE

Open Access

ASSESSING INDIA'S CLIMATE CHANGE ACTION AND ROUTE TO SUSTAINABLE DEVELOPMENT

***Rajesh Sahu**

PhD Research Scholar, Politics and International Studies, Pondicherry University

ARTICLE INFO

Article History:

Received 14th April, 2017
Received in revised form
24th May, 2017
Accepted 26th June, 2017
Published online 22nd July, 2017

Key Words:

Climate Change,
India's Climate Action,
Human Security,
Renewable Energy,
Sustainable Development,
Climate Justice.

ABSTRACT

An exploratory and analytical outlook of India's climate change activity and ecological homogeneity for sustainable development is the fundamental objective of this paper. It is an endeavor to illuminate climate change impact and its consequences into the dominion of India. The concept further elaborated to achieve climate justice and to enlighten the path for a sustainable future. Because, human and their security has been vulnerable, as well as every other species living inside Earth atmosphere, has been anguish by the changing of weather events and its devastating corollaries even before. Further, development and modernization has been the compulsion of the developing country and also for the developed world without consideration of the mother earth.

*Corresponding author:

Copyright ©2017, Rajesh Sahu. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Rajesh Sahu. 2017. "Assessing India's Climate Change Action and Route to Sustainable Development", *International Journal of Development Research*, 7, (07), 13626-13633.

INTRODUCTION

The 21st century is inconsistently hostile due to the non-traditional and new dimensions of security menace. As a result of the stern development, devastating consequences like climate change, environmental degradation, climatic abruptions, unnatural phenomenon and other difficulties has been taking place in the society. What has acquired by the human being in the name of development is presently a prevalent question? The matter of concern for every nation's policymakers, scientists, leaders, writer, governments, and other think tank is the overwhelming implications of climate change and environmental security. This paper is looking through an analytical way and elucidating India's action towards climate sustainability in the existing scenario. India's footstep headed for sustainable climate is an inspiring factor for other developing world and far more challenging for its own development setup. As Earth's climate is rapidly changing and its catastrophe and devastating effect have never been seen

hundreds of thousand years before. Today climate change is a major intimidation to each and every living creature sustaining upon earth. It is a substantial and long-term disparity in the statistical distribution of weather-related events for a long period of time, which is ranging from decades to hundreds and thousand years. The term climate change came into existence in the early part of the nineteenth century by the French scientist Jean-Baptize Joseph Fourier (Giddens, 2009). He found that the energy reaches earth surface from the sun, in the form of sunlight, is obsessed with some fragment of the gaseous elements, dust particles and greenhouse gasses and very less portion radiated back into the cosmos. He was determining the fact in a theoretical approach that the variance between energy coming into the earth surface as sunlight along with which going out from earth atmosphere as infrared radiation, some of its portion has imbibed by certain gases and dust particles present in the atmosphere, in theory, the planet should be frozen (Giddens, 2009). The French scientist then set on the enigmatic process of earth's atmosphere and defined that earth atmosphere act like a blanket, holding some portion

of heat into the ambiance and through this manner, the planet is forming condition living like for every species. The scientist also points out that carbon substances and most prominently carbon dioxide act as a heat-trapping gas and it is increasing the earth surface's temperature in an excessive manner, which is equivalent to a blanket on the environment. The major gases of the atmosphere like nitrogen and oxygen have not many effects on the environmental process and so. But the greenhouse gasses like carbon dioxide, water vapor, methane, and ozone are creating vulnerable to the life on earth such as humans, animals, plants and other flora and fauna. The scientists use the technique of ppm or 'parts per million' to measure the greenhouse gasses present in earth atmosphere and one ppm is equivalent to about 0.0001 percent (Giddens, 2009). This small portion can give rise to an enormous impact on the environment, which is produced by human industry and their use of fossil fuels and perilous developmental activity that indiscriminately impacting upon the environmental sustainability.

Anthropogenic activity has been crossing its limit through the consumption of fossil fuels resources and excessive practice of land, water as well as vegetation, which rigorously threatened the natural process of the ecosystem. Anthropogenic activity includes deforestation, over production, agriculture, excessive use of land, massive use of crude oil that has largely contribute to the augmentation of the carbon dioxide and other GHG gasses which causes climate change. Natural resources of the earth and human ethical value are decreasing day by day with the name of urbanization, development, and modernization. Presently, the MNCs, Big Business Organizations, and Other High-Level Companies have been attentive towards their personal benefits, by any cost without pondering of nature, whether the price is human or natural. Climate governance is a major part which has been playing by most of the governments and intergovernmental organizations from over past two decades (Bulkeley and Newell, 2010). Currently, climate security is a necessary and significant phenomenon in the society of the world. It means the protection and control of climatic threat posed by humans and other living and non-living creatures on earth's atmosphere. The present day need of society is to protect and secure environment from precarious developmental activity and materialistic human desire. Climate security is essential for the control of past climatic pollution and to secure and check the present day environmental risk for the safeguard of current generations' rights and the future generations' privileges and needs.

As climate change is caused by volcanic eruptions, biotic process, variations in solar radiations receiving by earth plate tectonics etc. and to prevent these influencing factors a well-planned climate security policy is required for the betterment of humankind and society. Climate is a worldwide phenomenon and its security is essential for the life sustenance on earth. Climate is changing due to the anthropogenic activity and our traditional belief of security like the military and economic which has no longer relevance as the world is not fixed and it is constantly changing. As far as the security is concerned we can call climate security as the 'Global Security' because climate change is not perceptible or prefer to any one region or state but its effects are global. Presently industrialization and development are flowing in the same direction based on the fossil fuels technology. And, this trend was started in the western part of the sixteenth century and has

influenced all over the world and has had been destroying the globe by its unethical and untenable value of progression (Gaan and Mahanandia, 2016). Today, modernization which is a part and parcel of development which also refers to the advancement of science and technology by the use of earth resources and all the life on earth from humans to a small ant, in a mechanical way without understanding and aware of the consequences and catastrophes of that action. This notion of development had followed by all the non-western countries after the post 2nd world war period as a part of modernization and westernization. During the last four epochs, the western world has emitted a massive amount of carbon dioxide in the atmosphere (Gaan and Mahanandia, 2016). In that course of time, the developing countries of the third world began to start their industrialization process. The western developed and industrialized countries led by the U.S. have prior to assumed three-fourth space avail to all human beings impartial or fair in terms of carbon dioxide emissions (Gaan and Mahanandia, 2016). Climate is interlinked with various ecosystems, therefore, a change in one can create and effects other interrelated ecosystems as well. For example, human being, animals, plants, food security, agricultural production and resources, availability and use of freshwater, health conditions, forest, coastline region, wealth, and economy of states, flora & fauna, etc. are interlinked with each other, so if one of these ecosystems gets affected then it influence everyone's ecosystem and sustainability.

As climate is changing synonymously its consequences is also increasing with wide-ranging impacts including sea level rise, melting glaciers, ice, and snow, earth extreme heat events, rainfall, and floods, storms, fires, and droughts etc. and scientific discoveries found that the principal reason for changing weather events is the tremendous use of fossil fuels like oil resources, natural gas, and firewood which is releasing GHG gasses into the atmosphere. These gasses especially responsible for the catching of sunlight and heat inside earth ambiance, when it goes back to the cosmos, a huge amount of destruction is transmitting in earth ecosystems. A small portion of the rise in earth's temperature can cause severe effects in weather events. The atmospheric temperature has never crossed above the limit of 300 ppm between thousands of years and in the 19th century. Currently world CO₂ level is about approximately 406 ppm, a level never extended in 400,000 years. The earth temperature is rising and its average temperature having risen up to 1.4⁰ F over the past century. Now, it is likely to go up or increase almost about 11.5⁰ F over the next century (Parida, 2016). In 1907 the world average temperature has risen by 0.74 degrees (Giddens, 2009). It does not appear to be a great deal but earth normal atmospheric heat for the period of 1907 was about -0.92⁰ F, which also known as coolest November. In 2015 earth's average temperature was about 0.96 degree or 1.73⁰ F which also known as the warmest November in the history of mankind.

Existence and Reality of Climate Change

Scientists and scientific community have a broad-based agreement on climate change and its existence. They all are agreed that climate change is a real phenomenon and have to work together to protect the environment and prevent its devastating effects. The scientific think tanks and various world governments along with their agencies are supporting and working for the solutions and techniques to curb the menace and effects of climate change.

The agency which is working on climate issues and sustainable developments are such as American Association for the Advancement of Science (AAAS), The National Aeronautics and Space Administration (NASA), The National Oceanic and Atmospheric Association (NOAA), American Meteorological Society (AMS), The United States Environmental Protection Agency, Centre for Climate and Energy Solutions (C2ES), MNRE or Ministry of New and Renewable Energy in India and so and so. All these agencies observed and stated that climate change is real and its effects are harrowing and rigorous human activities are the primary cause behind it. These organizations are also suggesting and providing informations and ways to curb as well as to control the torments of the climate threat. The United Nations and its associated agencies are also from time to time providing knowledge and establishing conventions and agreements on the issue of climate change. But some people deny the reality of climate change but they are not scientists and their voice has been disgracing by climate scientists, scientific think tanks and at large by the international community. These know it is happening and is real, as GHG gasses and excessive use of coal substances are making the atmosphere unbearable and increasing earth's temperature. So it is real, as Earth is burning and weather patterns have been fluctuating along with unhealthy weather events like flooding, wildfires, glaciers melting, superstorms and droughts etc. and we all are paying the price in our day to day life, livelihood, fresh water scarcity, food and other related events. IPCC is one of the world most influential voice and carries out an investigation on the problems and threat to earth atmosphere. The key aspects of IPCC are to furnish scientific information, technical and socio-economic information that are significant to understanding the scientific basis, the possible effect of climate change, information at all levels of slowing down or control earth's radiation by policy adaptation and mitigation strategies for the better conditions of life on earth. The IPCC report 2007, has estimated that more than 2500 experts' scientific reviewers, almost 800 contributing authors, and 450 key authors are working on IPCC that belongs to about 130 countries. The IPCC has appraises and evaluated the latest scientific documents and information, socio-economic knowledge and data pertinent to climate change, but it does not undertake any arrangement of research.

Sustainable Development, Human Security, and Climate Justice

The Brundtland report of WCED or World Commission on Environment and Development in 1987, defines that "sustainable development is that development which meets the needs of the present without compromising the future generations ability to meet their own needs" (WCED, 1987). It interrelated in a most significant manner with the economic development of the countries, can be entitled as a course of development which encompasses converging human development goals with the security and protection of natural ecosystem such as natural resources, ecological and environmental conditions, in relation to the survival of the society depends. It contains two most important aspects of the essential requirement and needs of the poor and the idea of constraints imposed by state and other social associations for the security of the environment. The essence to intertwine sustainability with economic development is to make a unique bond between human action and the natural world which will make certain the prospects for future as well as present

generations' quality of life. Sustainable development also indicates the security and quality of natural life of human being and other species living on earth. Security is an essential paradigm in the era of 21st century mostly due to the hazards of climate change. Mahbub-ul-Haq in his most valuable handiwork of UNDP human development report instigated the concept of human security and speak of about the necessary condition of human growth. For him, the security of mankind and their homes, streets, jobs, communities and environment were just as essential as traditional security. But today, mankind is frequently liable for the changes in climatic conditions and their own sustenance. Due to climate change numerous malady like HIV/AIDs, West Nile virus, monkey pox, SARS, BSE, Lyme and Ebola disease, are evolving and crossing in a more frequent manner to humans because of environmental imbalance and intensification of farming (Ganju, 2016). So, there is an emerging consensus that alterations in the natural environmental cycle are killing us and threatening human sustainability through unexpected diseases. According to the latest report of WHO an unhealthy environment and ecology are responsible for almost one in four of all global demises and about 12.6 million people dying every year due to living or working in an unhealthy and unnatural environment (WHO, 2016). As per the sources, the environmental aspect such as air, water and soil pollution, climate change, chemical exposure and ultraviolet radiation play a decisive role and causes more than 100 disease and injuries to the species living on earth.

At present, from automobiles which has demolished and contaminated U-235 crystals, refrigerator coolants have marked as well as an outspreading hole in the ozone layer, popcorn flavorings have killed individuals by way of lung disease, subsequent to eco-footprints (Soni, 2015). As a consequence and analogous actions, our natural system and oceans are in dire straits, our groundwater is reducing and less grounded, and our future generations and even after some years we cannot see the forest for trees will disappear from our ecology. Gaseous substances not only from fossil fuels but also from the flatulence of cows are making climate change. So, it is very necessary to think of our sustainability on earth which is only be possible by accomplishing climate justice. Climate Justice refers to the thought and actions towards the progress and safety of environment through a sustainable manner, by giving the rights and resources to our forthcoming generations. Justice can be acquired only when we are realizing our responsibility and duty towards the environment and its sustainability as well as stand and work for the safety of ecology. It can be succeeded by sharing knowledge between communities and in local, national and international level the people must take the lead in shaping effective solutions. It similarly refers to an open worldwide doorway to leap forward technologies for the transformation on the road to sustainability, for instance, effective biological solar dishes and innovative and fresh organic energy storage systems (Shue, 2014). The justice of climate or ecology can also be attained trough investing in the future, by the companies which are a critical job to accomplish. But, it can possible if our political leaders can influence and give a new direction to commercial group and financiers for an unbiased less dependent coal financial upcoming substance is the only viable alternative (Shue, 2014).

Environmental fairness raises the chances of robust allegiances which has continued by most of the nation's altogether and

playing their role through the international accords and it is very much necessary for accomplishing justice to the ecology. Most of the people believe that together with an indigenous population throughout the globe, conversion of changing climate is a crucial and serious concern and being necessary to culminate its risk in an inordinate manner emphatically than before. It means greater accountability and commitment of government is an essential factor for accomplishing climate justice. A strong legal framework is essential and can contribute the conviction to make sure the credibility, flawlessness, permanency and operative application of environmental policies and associated strategies (Shue, 2014).

Climate Change and its Effects on the Sustainability of India

The network of species is the links that maintain the steady nature on the planet. Each and every species is a link through the invisible chain that forms perennial natural cycles that recycle so that there is no waste or pollutions (Soni, 2016). And like this manner, all planetary resource and wealth are preserved. It took hundreds of thousand years to formulate the resources like forests, rivers, aquifers, oceans and seeds. So, how do we deal with this evolutionary resources which cannot be restored and reinvented by human engineering? The destruction and excessive use of such resource are irrevocable. Human interference with the living planet and its processes must be non-invasive and must be flow by a 'conserve and use' standard or principle. Indian metropolises like Mumbai and Delhi exist predominantly with unprotected conditions in the direction of innumerable risk posed by climate change such as growing sea levels and pollution of air respectively in this city. Potential growths in terms of rigorousness of storms as the high temperature, melting of glaciers and water surface of sea level hikes. Furthermore, climate change has the offering to disturb the monsoons fall, intensifying the possibility of rain water or catastrophe in the natural pattern of monsoon. India is awfully threatened by climate change and its impact is severe in every part of its domain. India is a major developing country and has the 2nd largest population in the world after China. We know that more population means more consumption and more depletion of earth's resources that causes rapid growth in carbon dioxide and GHG gasses in the atmosphere. India is the fourth largest emitter of carbon dioxide and other greenhouse gasses in the world (Make in India). As per the 2015 report is concerned India is accounting for 6 percent of global GHG emissions. The sustainability of the environment in India is excessively in danger.

As compared to the major economy of the world, India's global emissions are very low before 1990. By the year 1990, India is responsible for 4 percent of energy-related emissions whereas China and United States was responsible for 15 and 16 percent respectively. The per capita emissions of India is nearly 2 tons, while the United States and China respectively have responsible for 20 tons and 8 tons per capita emissions. According to the Global Commission on Economy and Climate, India's future could be destabilized if a single negative economic choice or decision will be formulated, prominent to stragglings townships that stand in an awful condition with overcrowded and adulterated, terrestrial land resources is poorly contaminated over the overwhelming agrarian rehearses, forest demolished and wiped out with an inefficient energy structure. (GCEC). The panel of IPCC found that gas emissions, anthropogenic activity, primarily carbon

dioxide, raised up to 71 percent between the years 1970 to 2014. The other emissions sectors are like transport, buildings, energy productions, land use, forestry, and agriculture. Almost all governments are focusing on the implementation of the carbon sink and storage technology in energy supply sector, as the past three decades has been accountable for at least 145 percent growth in gas emissions (Gaan and Mahanandia, 2016). Due to the impression of changing the atmospheric weather, monsoon inside South-Asia is severely threatened and accountable for rain-fed wheat cultivation in a big way and its people will suffer in an excessive manner as in near future the cereal production will seriously drop. Industrial growth and development are essential features for any of the countries development, for the greater advancement of development, for making employment, and the excellence of human being life. But it is crucial and important to cross-check the inappropriate and unsuitable measures for the security and betterment of atmosphere. Currently, in every part and corner of the world, the utmost essential concern is about the threat of climate change. The only disparities between the policymakers and governments are how the anthropogenic or human- induce emissions can be the switch to alter their emissions in a sustainable manner in a positive way.

According to the report, climate change is ruthlessly disturbing vulnerable developing country and the poorest nations in a huge manner in terms of agricultural production and sustenance. As the summer monsoon is essential for India and liable to 70 percent of annual rainfall in Indian cereal production and agricultural action. About 58 to 60 percent Indian people are subject to the agricultural activity for their day to day livelihood. In India, the central part will face a plunge in winter rainfall between 10 to 20 percent by 2050's, while on the other hand, semi-arid region of western part of India estimated that it will experience greater than regular rainfall. There would be a disaster in the output of production because of the rising temperature as well as the seasonal crops arrangements and a major reduction in 'Rabi' with compared to 'Kharif' season crops will be realized in Indian agriculture. The scientific community and its current consensus report shows that the availability of fresh and potable water resources will decline in a massive amount as well as with sea level rise and melting of glaciers can cause water anxiety between 75 to 250 million people by 2020, greater than before human experience. By the year 2050, most of the state will face the shortage in the availability of fresh water like from East and South-East Asia, Central to South will mostly be projected to failure in large river basins. Indian mountains and glaciers are experiencing the climate effects on a huge scale such as Himalayan Glaciers of India melting in a large proportion and the river Ganga and Yamuna also are in trouble. Currently, due to the effects of weather conditions and melting of the Hindu Kush and Himalayan glaciers range, sea level has risen of about 40 cm. As per the available data which clearly shows that the 'Gangotri' glacier is falling apart nearly about 28 cm every year. The coastal belt area is hugely suffering due to the impact of Marine water expansion instigated by the fluctuations in climate.

The coastal zone which is mostly affected are Maharashtra, Gujarat, and Goa which stand in front of a serious threat that is nothing but the present growth of sea level. If continuously temperature will rise than Goa will be the worst affected area in India because melting of glaciers and increase in the sea level will influence its large percentage of infrastructure, land

area and many of its beaches along with other tourist places. In addition to that, coastal belt state will be sternly touched, like Orissa and its marine life and species living by the side of coastline environment. Similarly, it also affects the availability of potable and fresh water resources and upsurges the salinity of sea water which will form inadequate circumstances and make fresh water crisis. There will be a growth in Glacier Lake in India which will Outbreak Flood in the Central and Eastern Himalayan region and affect most of the areas with devastating downstream flooding. At present, human beings are basically liable for the nuisance of the human generations as because their deeds has been fabricating the threat of climate change. Earth surface temperature is rising day by day that worse the human health, their well-being and reducing their time on the planet. As per the calculations, it is estimated that in India and most of the nations the number of deaths had increased due to extreme heat and temperature rise and additional life-threatening weather events. The WHO informed that due to the increase in temperature a number of diseases are taking place on earth which has never appeared before like malaria has come up in Nepal and Bhutan.

The IPCC and WHO reported that the negative sway of weather variation is more superior on people's physical condition than others. The World Bank accepts the fact that even 2⁰ C rise in temperature could cause the risk of hunger between 100 to 400 million peoples, as well as scarcity and availability of potable water for 1 to 4 billion people (IPCC, 2007). The former IPCC chairman, R K Pachauri deliberated that the impact of climate change can dwindle the cereals production in India. He asserted that temperature growth can disturb the sustainability of ecology in India and also assessed that the proliferation of 0.5⁰ C in wintertime could be the reason for 0.45-ton decline per hectare wheat production in India. Each year India is producing the wheat at an average rate of 2.6 tons per hectare. He stated that the total agricultural land in India will decline very soon and also the present accessible must forgetting nothing might be there for a long period of time. The Indian farmer has to walk around alternatives crops patterns suitable to the condition of weather.

The Union Finance Minister Mr. Arun Jaitley in his budgetary speech assured to empowering of a proficient committee on the issue of climate change and recognition of various measures to curb the menace. In 2017 budget, he has announced the information that about 7,000 railway stations will access power from solar panels as well as in the mid-term of 2017 will perceive the dawn of the second phase of solar park development for generating an extra capacity of 20,000 MW electricity. Even if in Indian budget climate change was not being paid proper attention by the finance minister but he has enhanced the share by about Rs. 300 crore to Rs. 2,657 crore in the current year (2017-18) for the environment ministry. However, it is sure that our ecology is not in balance-witness and shows numerous problems- the huge industrial activity, gigantic loss of species, massive consumption, mega waste, construction of large cities and amalgamated this with global warming and a population explosion. People believe that with the science and technology we can control and beat the climate threat. But we should not forget that our technology and development produced a risk to human society by dumping trash on the planet and by manufacturing waste of the planet (Soni, 2016). Whereas the planet which is the largest production system in the world has not left any junk or waste in its realm.

India and its Constitutional Laws on Environmental Security

In our Indian constitution, some articles are there which defines the safety and security of the environment. For example, Article-21 which talks about right to life and includes the environmental protection within its purview. Like that Article 48-A of the Directive Principles of State Policy enforces an obligation on the state to secure, protect and improve our environment and save it from any adverse effects. There is also provisions in Indian constitution that the citizens of the country should care and protect the environment. Article 51-(g), which comes under the chapter comprising Fundamental Duties of the Constitution, refers to the obligation of every citizen of the country to protect the natural environment and its sustainability. India's father of Nation, Mahatma Gandhi, accentuated the concept of trusteeship for the betterment of human conditions so that every activity in the society becomes transparent as well as the mode of just and fair manner. In almost all the countries in the world like Germany, South Africa, Bolivia, and Kenya, commission to examine and review their laws on the basis of the inter-generational equity principle has been established. (Parikh, 2016). Likewise, our constitutional obligation under Fundamental Duties is destined to inculcate a spirit of trusteeship in every citizen of the country. The compulsion of trusteeship lead to objectivity, responsibility and encourages self -disciplines to care for Nature's rights. Nature should be saved for our future generations, then only we acknowledge the profound meaning of our old sayings: 'we do not inherit the earth from our ancestors: we borrow it from our children.'

Current Measures and Actions of India towards the Sustainability of Climate

Suspicious of the intimidations carry out by environmental change plus over emphasis being going on to ecological resources, environs and its sustainability with a multifaceted ecosystem which is a gradually enchanting center point in terms of action policy in India. As of now, India has been prominent to more than about 95 multilateral environmental accords (Gaan and Mahanandia, 2016). Nowadays India is playing a pivotal role in the sphere of alternative sources of energy which is protecting and securing the ecosystem and the species living on the earth. In June 2008, prime Minister of India Mr. Narendra Modi publicized initially the nationwide action plan on climate change, which identified 8 core "National Missions" continually during the course of 2017 (Centre for Climate and energy solutions). As per the year (2012-2017), Indian Government aims to accomplish inclusive economic development with an average of 8 percent annual GDP growth rate and has voluntarily decided to diminish its intensity rate of emissions by GDP of 20-25 percent in excess of 2005 stage by the year 2020 with India's Copenhagen pledge (Make in India). It also going to generate 300,000 MW of electricity by renewable sources of energy. Indian Prime Minister has initiated to scale up fresh renewable or clean power generation and also commenced an alteration in India's posture in transnational accords towards changing the environment. The first step had taken towards environment was to rename the Environment Ministry to The Ministry of Environment, Forests and Climate Change. Further, it has reformed the Prime Minister Committee on Climate Change which was established on June 5, 2007, by UPA government and it coordinates India's National Action Plan for Valuation,

Acclimatization, and Alleviation of environmental hazard with intermittent disciplinarian significant course of action in the domestic field. This committee currently focusing upon new ingenuities towards wind power, managing of the coastal prone zone, physical safety and atrophy to power generation and others (C2ES). It also enables inter-ministerial cooperation and monitor policy in the relevant field. Indian economy is by this time moving to a less reliant coal economy and sustainability track into the direction of lower firewood intensity and its GDP growth rate which is anticipated to decrease additionally by lower use of coal. The per capita emission of India in 2031 will still be lower than that of developed world per capita emissions in 2005 level, which will be expected to about 4 tons of carbon dioxide.

Various programs and associations are there in India for sustainability of environment as well as for the fortification of the ecosystem. These activities help to form and develop abilities of community associations to make use of the natural resource in a sustainable manner and their proficiency, as well as capability, can be further developed. Numerous programs and action are there on Environment such as non-timber forest produce related livelihood, improved soil health, and its fertility to ensure agriculture based livelihood and advancement of low-chemical agriculture. India is making full efforts to achieve sustainable development along with rural development into its domestic policy. A number of policy instruments remain being put into practice thru the sphere of clean environment, water supervision, pollution control, preservation of natural resources and coastal zone regulation zone, green ranking for integrated habitat assessment, clean energy, forestry, joint forest management classification of ecosystem and energy efficacy labelling and fuel efficiency standard and so on. The Indian government on December 12, 2015, in Paris under the auspicious of UNFCCC reached a landmark accord. The brave new agreements are built by the stitching up of 'self-defined' national contribution of all parties. It combines bottom-up national pledges for climate actions with top-down rules for review, transparency and collective considerations of overall adequacy, represents a paradigm shift from earlier attempts to craft a global climate agreement. The objective of Paris climate accord is to hold on global average temperature prior to pre-industrial time which is below 1.5⁰ C.

As India is accountable for nearly 6 percent of global cumulative GHG emissions, mostly carbon dioxide but in terms to per capita emissions it was very much lower than the other 10 countries and who had very much ahead of India. India has devoted to reducing its carbon dioxide intensity per unit emissions GDP by 33-35 percent over 15 years of time earlier to 2005 levels. It also makes strategies to produce and develop its electricity capacity to 40 percent by non-fossil fuels energy sources within 2030. It indicates that India will make a further step in the sector of renewable energy and will have to generate 175 GW energy by 2022, which comprising 5 GW from small hydropower, 10 GW from biomass, 60 GW from wind energy and at last 100 GW from solar power energy sources. Moreover, it will improve and upswing green sphere by the mode of increasing forest in its domain by 5 million hectares to curtail the threat of climate change and make India as a green sphere of equal measures within 2030. In COP 22 consensus the basic rules was to operationalize the Paris action plan on climate change and make improvement and progressive action towards pre-2020 policy implementation. It

was joined mostly by different governments, NGO's, civil societies, industries and others. In connection with other developing nations of the world Mr. Anil Madhav Dave, minister of state in India and department of Environment, Forest and Climate Change, played a pivotal role in a constructive manner to make certain that climate actions and undertakings are based on the formula of equity and Common but Differential Responsibility (CBDR) for accomplishing Climate Justice. Currently, all the developing and developed countries following CBDR doctrines as acknowledged by Paris accord action plan and focused on the way to operationalizing it in the rulebooks concerning to technology transfer, finance, capacity-building, transparency arrangements, mitigation and adaptation strategies. One of the utmost essential functions under this proclamation was the mobilization of \$100 billion every year and other assistance to developing countries by developed nations to achieve the 2020 action framework (MNRE, 2011-17). Further, for developed world this proclamation straight away demanding for cutting their emission intensity to attained their Kyoto commitment on or before 2020. An enormous share and options offer by Prime Minister Modi in his suggestion cum proposals, to access electrifying lights in between 2019, which covers 400 million public access electricity in India to those who have no access to electricity for their day to day use, through solar – powered lamps. So, it is the necessary and very crucial time to take the rightful decision. By picking out the healthy option it may possibly take pleasure in a fresh and additionally secure system of financial development that can evade most of the problems which other developing world is being faced, particularly china have been withstanding (Stern, 2015). Between the following 15 to 20 years, intensely outline the future of India and India's charisma into the sphere of the whole world.

India's Renewable Energy and Sustainable development

Sustainable energy refers to that sources of energy which create less or even no dirt to the environment and with convenient collateral impacts, in essence to ecological effects. Further, the technological care for sustainable energy includes advancement for energy efficacy and renewable energy technology sources that are solar energy, wind energy, wave energy, bioenergy, hydroelectricity, geothermal energy and tidal power etc. (Dobson, 1990). In India, thermal power is the largest power source and have production in almost all the part in India, which contains oil, natural gas and mostly coal. Thermal power stays on the line and has a foremost portion in terms of power sources that is nearly 67 percent. Potentially it has ample amount of coal resources, which are located in the region of eastern India that is about 70 percent, along with that hydrocarbon reserves mostly found in the western part of its domain. India has rich in coal energy sources and out of total coal sources it reserves about 220 bt, while in relation to crude oil holdings it has about 733mt. On the other side, it has very near to the ground in case of natural gas reserves capacity which is expected to around 750 BCM. Out of overall production of coal in India, just about 21 percent is keen to cook properties, along with highly plasticized for steel engineering and foundries (Omprasad, 2016). Except cooking coal, all other coal effluents are generally used for steam formation and power generation by industries for its economic and commercial purpose. India for its domestic activity importing almost about 81 percent of oil from a number of oil reaching countries.

It has estimated that in the case of primary sources of energy use India has 34.4 percent and in the end of 2015 period, it has almost 6.5 percent fusion of natural gas energy (Make in India, 2016). India has intended for a far-reaching policy with long-term objectives for the ability of nuclear energy and expected to produce 20000 MW by 2020 and to succeed this goal India marks an eminent strategy to advance fast breeder reactors in addition to making the use of thorium reserves in its own land. Currently, greater than of at least 1/5th of the electrical energy generation by India's power station is misused for the duration of diffusion and dissemination, with compare to the United States only 10 percent. The negligence of electricity in India consist of mugging along with embezzlement in billing, misuse of the electricity meter, and assortments. This kind of incompetence has predominantly firm consequence for the underprivileged section in rural societies. Another pertinent point is irregular power distribution for cultivation, lead to electricity pumps remain to leave behind night time, swamping the grounds, waiting for power and water, burning out pumps as well causing soil erosion.

In India, about 15 percent of energy production move towards renewable sources. It is estimated that India can produce 20-30 MW of electricity per sqm by the form of solar energy (MNRE, 2011:10). India is in the position of fourth-largest power among nations in terms of wind power potential that share the room of about 28 GW out total renewable sources and accounted for 61 percent out of overall alternative power generations. It also responsible for 14 percent of its total power capacity. By the year of 2022, India has set an ambitious target for securing 60,000 MW electricity power generations from wind energy (Make in India, 2016). India is standing on the 7th spot in terms of producing hydroelectric power in the world and have the 3rd position in terms of total numbers of dams on the earth. Hydropower energy source has hugely available in India and it has potentially rich and capable of its production, which is about 600 TWH. Out of the over-all hydroelectricity productions capacity in India that is about 294 GWH, over that almost 37950 MW has been generated up to the mark and moreover about 12550 MW electricity are under process. In India's northeastern part have a huge potential of hydropower generations with about 117 GWH, which organizing around 40 percent of total hydropower potential in the country (Omprasad, 2016). In general, we can state that about 87 percent of hydropower electricity power still require being produced for fulfilling its need. India's stand is very meaningful in the case of present-day renewable energy sources that is nearly 44.820 GW, out of that it has further 9 GW of solar power set up capacity potential at the end of 2016.

The Idea of Empathy and Environmental Sustainability

As a part and parcel of environmental structure we should be very much thoughtful and be taking action in the vicinity excluding, to begin with, human evolution, we have instigated to have a snowballing influence at present that is not just local but global (Moran, 2006). Numerous conventions, treaty, and arrangements have been carried out by several governments and they are more sympathetic towards nature. They are making numerous policy to achieve their economic targets rather than the sustainability of ecology. Governmental programs like the green buildings, green dams and green projects, have nothing 'green' in them, as they are simply a tag mark to showing the world (Parikh, 2016). This logical

explanation can also put into the concept of sustainable development, which looks like so equitable and reasonable that everyone trying to link up with to justify their action is non-threatening, but in practical circumstances, it is just the act of exhibiting in front of the world. So, here comes the concept and idea of empathy which is far different from sympathy. Empathy in its simplest, awareness of the emotions and feelings of others whether it is people, nature or environment. It is a most important feature of Emotional Intelligence, the connection between self and others, as by this we individuals understand what the emotions of others are and how they are subjected to certain things like we were feeling it ourselves. Empathy towards environment also intends that action and efforts for the betterment of nature and its sustenance, in a practical manner and not just by mere words. It can be achieved through on occasion of compromise our luxurious life for the ecology. In ancient time people were more empathetic, worshipping nature and Mother Nature becomes part of their existence, for example in Kalahandi (Odisha), Dongria Kondh, a 'primitive' tribe in the region of Niyamgiri worships trees, believe that they find their life in that environment and also they worship the existence of god at the mountaintop plateau, the place of starting point of river, and rich in biodiversity, as they have faith that their holy being or deity which they have called as Niyamraja resides there in that surroundings. So, at this time the only approach to marking a better policy for the people is to be aware of the firmness and urgency of the environment by all the governments -local, national and international. And it can be possible when each and everybody will feel the significance of environment, be more empathetic towards mother earth, which we can possibly calculated by the equation e.g. Environmental Health=My Health. Planetary Heath=My Health (Ganju, 2016).

Conclusion

India facades precarious selections in relation to the development of the metropolitan area, the practice of its land-dwelling activity and the configuration of its power arrangements. Certainly, these investments will indeed in large measure regulate as well as define how the existing epoch will be the 'Indian epoch'. India's Investment in capitals, urban area, resources and land-dwelling practice have very long-term impacts so determinations at the prevailing situation are the essential part and transformational development is vigorous. Wise investment here means to connotations, for instance, for obstruction, contamination, ecosystem, the livability of towns, physical fitness and nourishment etc. Since customary longstanding past style of town planning, from top to toe old-fashioned coal attitudes, and a spontaneous or hit and miss attitude to the rural terrestrial use of acreage. Though India has considerably less per capita emissions than that of china and far away from rich nations, its dimensions and expression create it as persuasive and extremely vulnerable like the developed nations. Contemporary economies believe in progress as well as increasing consumptions and not in a healthy steady state. Growth can be exchange by building new and additional efficient and holistic networks that persistently evolve into a steady state with more self -organization. Present-day, an effective and democratic solution is possible only if we make respecting the three pertinent spheres actions-working towards a healthy earth, an equitable society and for the general public to be proper and true to themselves. Buddha had acknowledged the three identities such as the sangha that refers to society and free debate or democracy, the dharma

which set out the ethical responsibility and a value system that goes with the freedom to choose, to avoid inequity and ahimsa that says philosophy of non-violence towards all living beings on the earth. Thus, we require an ethical value system based on natural wisdom to accomplish what is essential. In India the most pertinent field of dispossession are educational and healthcare services, access to safe drinking water, suitable nourishment of children, gender discrimination, and proper sanitation, the right to information and energy and environmental security. The WCED aims to assimilate 'Environmental Sustainability' and sustainable development, into every nation's policy and rear loss of natural resources. It is very necessary to inform and aware the people about the present day requirement and relevance of environmental threat and rising call for a sustainable and clean environment, environmental economics is fast appealing a topic of public interest and common understanding for all individuals as well as nations. For the sustainable environment, we should think and act accordingly and in support of mother earth, as well as the imperative to use our natural resources very wisely.

India distinguishes the threat which has had effects on earth, but it most possibly ineffective to act towards ecosystem, the necessity to safeguard forest beside that check other forms of landscape degradation. For example, it desires to care for aquatic and ecosystems in a sustainable way and limits its growing reliance on import of foodstuffs from outside world. As nature is the common treasure for humanity so that we should consume according to the spirit of 'sharing and caring' and an adequate amount of resources to be left for our future generations while we must not forgetting 'anything is beyond human endeavor'. We can acquire sustainable development through our reasonable action by concentrating on the requirement and necessity of the underprivileged section of society and best possible operating of limited resources of biodiversity, water, air, energy and land-dwelling by superfluous collaborative action. Also, the energy consumption by India is being renewable and is possible only if its apparatus to be renewable, like the battery storage for solar energy. Right from the beginning, children need to flourish with a sense of responsibility for their societal and planetary identities, which is an integral part of their existence. The progenies of today can alter the transformation and make a fresh change, there is no question about it. It is there as well as the planet of everybody who is living and caring on earth. As former UN Secretary-General Ban-Ki-moon lays down that: there is no plan B'. As always, the perennial question remains: To B or not to B. So, no more talks, no more agreements, no allowing of fossil fuel companies because this is the time to act boldly and decisively for the planet as well as for our present and future generations.

REFERENCES

- Bulkeley, H., & Newell, P. 2010. *Governing Climate Change*. New York, NY: Routledge.
- Dobson, A. 1990. *Green political thought*, London: HarperCollins.
- Dutt, G., & Gaioli, F. 2008. Negotiations and agreements on climate change at Bali, *Economic and Political Weekly*, Mumbai, January.19-25, PP.11-13. <http://www.jstor.org/stable/40276916>.
- Gaan, N., & Mahanandia, B. 2016. Climate Change and imperatives for Sustainable Development in India, *Journal of World Focus*, 37(10), 14-23.
- Ganju, V. (September, 2016). Health and Climate Change, Seminar, PP.25-30.
- Giddens, A. 2000. *Runaway World*. New York, NY: Routledge.
- Giddens, A. 2009. *The Politics of Climate Change*. (pp. 1-22). Cambridge, UK: Polity Press.
- IPCC, 2001. *Synthesis Report, Third assessment, Working group III, Summary for Policymakers*, Paris: IPCC, WMO.
- IPCC, 2007. *Synthesis Report, Fourth Assessment, Joint Working Groups, Summary for Policymakers*, Paris: IPCC, WMO. Retrieved from http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm
- IPCC, 2014. *Synthesis Report, Fifth Assessment Report, Joint Working Groups, Approved Summary for Policymakers*, Paris: IPCC, WMO.
- Make in India, 2016. Retrieved From <http://www.makeinindia.com/sector/oil-and-gas>.
- Michaels, P. J. 2004. *Meltdown*. (pp. 1-17). Washington, DC: Cato Institute.
- MNRE (Ministry of New and Renewable Energy) 2011. *Strategic Plan for New and Renewable Energy Sector for the Period 2011-2017*. The government of India, New Delhi.
- Omprasad, G. 2016. Sustainable Development Goal No.7 and India's Energy Security: A status report, *Journal of World Focus*, 37(10), PP.62-67.
- Parida, K. P. 2016. Sustainable development and ecology in recent times: A global concern and policy options, *Journal of World Focus*, 37(10), PP.75-80.
- Parikh, S. (September, 2016). Nature's Right, Seminar, PP.22-24.
- Shue, H. 2014. *Climate Justice: Vulnerability and Protection*. New York, NY: Oxford University Press.
- Soni, V. (September, 2016). The Problem, *Seminar 685*, PP. 14-16.
- Soni, V. 2015. *Naturally: Tread Softly on the Planet*, India: HarperCollins.
- Stern, N. (January, 2015). Managing Climate Change, *Seminar 665*, PP.98-101.
- Sustainable Development, 2015. *Agenda for Reconfirming Rights, Recognizing Limits, and Redefining Goals*, New York. <https://sustainabledevelopment.un.org/post2015/transformingourworld>.
- World Commission on Environment and Development (1987). *Brundtland Report, Our Common Future, Summary of policymakers*, UNGA.
- www.sswm.info/sites/.../UN%20WCED%201987%20Brundtland%20Report.
