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Analytical Aspects of Climate Change

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Abstract

Over the centuries humans are tried to change climate according to their suitability. Present scenario of climate change in alarming condition. Scientific community always take challenge to solve this problem. Due to modern development and expansion of materialism in society causes maximum emission of carbon which is harmful for our earth. Nature-balance is disturbed by our over used its resources. Some major factors responsible for climate change e.g. population blast on earth, social factors, economic vulnerability and impact on agriculture. Because all these are vice-versa depended on regular climate cycle. India's geographical location and its unique climatic condition makes our country a favourate tourist destination. We must help to protect and develop this with less pollution, population control, natural fuel consumption like use of solar energy, ozone layer protection and maintaining fertility of land. For this we can do eight action plans + eight solutions. So that we solve this problem. Otherwise we face to 8 factors of climate change and six direct factors which affecting our nations climate. Let us develop planet as its own form as our moral responsibility

Keywords: *Climate Change, Social Factors, Economic Vulnerability, Carbon Emission*

Introduction

Over the centuries humans have tried to change the weather, people have prayed, danced, seeded clouds and used other strategies to get more rain, to stop the rain or to increase or decrease heat. Seldom have we tried be change climate the average weather conditions. But we have unintentionally changed climate and we are changing it today also. The scientific community's assessment of climate has not prescribed governments to take radical steps to arrest climate change. However it is also not true that the government are totally down paying the threat of global climate change. There is a response to the glowing menace, yet it is slow to answer the challenge of climate change.[1]

Understanding of Climate

Climate forms the basis to exist on earth. The development of life forms and human civilization would not have been possible without a complex climate system. To most people climate seems a simple process. However it is a complex system, involving many physical, chemical and biological interactions among air, water, ice, land, surface, plants and animals.

It is significant and lasting change in the statistical distribution of weather patterns over periods ranging from decades to millions of years. It may be have change in average weather conditions or the distribution of events around that average (eg. more or fewer extreme weather events) this change may be limited to a specific region or may occur across the whole Earth fluctuations,

shorter than a few decades cannot be called Climate change such as El Nino.

Population Affecting Climate

It is true that human population growth is a major contribution to global Warming given that humans use fossil fuels to power their increasingly mechanized lifestyle, increasing number of people demand more oil, gas, coal and other fuels. All these natural resources on burning spew enough CO2 into the Atmosphere.

According to United Nations population fund (UNFPA), human population grew from 1.6 billion to 7.1 Billion in the end of this Century. During this time emission of CO_2, the leading green house gas grew twelve fold.

It is estimated that World population will surpass 9 billion over next 50 years. Environmentalists are worried about the availability of the planet to with stand the added land of green house gases entering the atmosphere and destroying the eco system below.

According to World Watch Institute (WWI), environment think that "the challenges facing are global civilization are to curtail climate change and slow population growth. Success on these two plants would make other challenges, such as reversing of the deforestation of Earth. Stabilizing water bodies and protecting plants and animals diversity much more manageable". The same institute also warns if we cannot stabilize climate and cannot stabilize population, there is not an eco system on Earth that we can save.

Noted Naturalist David Attenborough believes that humans are a plague on Earth that needs to be controlled by limiting population growth. He writes that he was born into a World of just two Billion people. Today there are seven billion people. Human population density is a factor in every civic problem.

Today the situation is such that we value over self interest more than our environment.

Values and Climate Change

We are living in a country of consumerism.

Today people value status image and personal achievements more than others and environment. Mostly people are pursuing extrinsic values such as personal growth, self interests. They aim at I, me and myself. This kind of values leads to materialism which again leads to climate change.

On the other hand intrinsic values contribute to sustainable development. People are not able to understand that Economic growth is disastrous for climate change rather it should be associated with sustainable development.

Social factors: Many of the factors that characterized the developing countries and contribute to their high tended vulnerability to climate change include rapid population growth, Endemic poverty hunger along with poor health and low level of education. When people are socially disadvantaged this vulnerability is exacerbated.

Economic Vulnerability: Important economic processes heightened developing countries vulnerability to climate variability – particularly globalization, trade and equity, structural adjustments accompanied by complex market reforms and market liberalization, have aggregated the socioeconomic situations of many developing countries. The integration of markets has subjected the Economies of many developing countries to a more fierce competitive market for which they are not equipped to handle. The global macroeconomic events have some grave implications for poverty trend in developing countries.[3]

As discussed, growth cycles and volatility in developing countries since the 1960's have been greatly influenced by policies in industrialized countries that determine the global macro economic conditions such as interest rate, capital flows and commodity prices.

Economic down turns in the developed countries have been associated with recession economic crisis and poverty increase in many developing countries and the current global crisis threatens to be the most dangerous in many decades.

Climate Change Implications and Agriculture

Agriculture is the most vulnerable to climate change due to it's high dependence on climate and weather because people involved in agriculture tend to be poorer compared with the Ur-

ban residents. more than 60% of population is directly or indirectly relying on agriculture as a source of livelihood in Asia pacific region. Climate change is already making impact on the lives of the people particularly the poor. It is already evident in a number of ways. Consistent warning trends and more frequent and intense extreme weather events as droughts, cyclones, floods and hailstorms have been observed across Asia and Pacific in recent decades.

The short term losses in the form of reduction in livelihoods and income due to impact of climate change on agriculture as well known. The short term costs of extreme climate events such as droughts, floods and cyclones can have major consequences for human development. In Asia majority of population lives on US $2 a day.

Hence climate shocks can begin powerful downwards spirals in human development. Climate shocks affects as they wipe out crops, reduce opportunities for employment, increase food prices and destroy property. Rich people can cope with shocks through private insurance or depending on their savings, the poor have no alternative but to reduce consumption nutrition, sell their productive assets on which their recovery depends.[5]

Climate Change Impacts and India

Climate change could accentuate pre exiting conflict patterns. By itself, climate change may not sufficient to cause large scale security problems for this south Asian nation. However India is already exposed to potential internal and external conflicts, climate change will likely heighten this pre-existing conflict patterns.

For e.g. in India twenty eight states have been affected by naxalism in one form or the other. This movement is a reflection of the lopsided economic development in India. As resources become scarce and population increases, various conflicts will take place on resource allocation and distribution. Climate changes will intensify dislocations. Naxalites will likely to attract more adherents as the stress of climate change mount.

India's relations with Pakistan will further complicate because of disputes over water. If their are major water shortages in both countries due to draughts, water could become a further source of conflict India and China can also deepen their tusele if climate attempts to build dames in Tibet and reduce water flows to the Brahamputra and its tributaries that receive water from Chinese side.

These are fears that, as India become of the leading emitters of carbon : its efforts to deal with the problem will be compromised by its concern not to disrupt familiar patterns of ecogrowth. There is already pressure upon India and China by the develop countries on deadlines for controlling carbon emission. As China and India compete for oil and gas and new sources of energy, they will need additional resources and this could become a source of contention if other countries have accepted plans for curtailing production of hydrocarbons.[6]

Climate Change and Refugees

Climate change is a comparatively recent development in comparison to the more traditional ideas associated with refugees, such as persecution based on race, religion, nationality or membership. Here is some points shows the ways in which refugees can be created by climate change. They are as follows –

Displacement of people due to changing sea levels – It is estimated by the IPCC indicate that by the end of this century the global sea level will rise some where between 28 and 43 centimeters as a result of thermal expansion and malting of glacier and ice caps (IPCC 20079 : 409). This is a conservative estimate. Actual indicators may vary from 40 to 150 centimeters within the same time frame (Black 2008). The small island states are more likely to suffer disproportionate consequences especially in terms of land loss.'

Many countries with low lying costal areas are similarly under threat. The Ganges – Brahamputra – Meghna delta, which stretches from India and Bangladesh to Nepal, China, and Bhutan, is home to approximately 129 million people. Rising sea levels, last flooding and resulting salt contamination of previously arable land has seen

Bangladesh suffer more than most of the other countries.

The previously vast rice fields and agricultural land, which provided vast resources and employment opportunities to the local communities, have been replaced with export-based shrimp farms due to salt contamination. IPCC has predicted that a rise of 45 centimeters would displace 5.5 million people and submerge over 10% of Bangladesh, the number of migrants will increase (IPCC 2001:569). This will add to Indo Bangladesh tension as India remains reluctant to absorb the high flow of climate refugees.[7]

Climate refugees also result from glacial lake flooding. This is more prominent in Himalaya region which has forced local people to migrate. It is estimated that by 2080, there will be between 50 million, 200 million displaced people owing to direct impact of climate change.[8] (Nichalls 2004; but cf. Black 2001 :7:8)

These are the solution to control climate change process.

- Keep fossil fuels in the ground.
- Iswenst in renewable energy.
- Switch to sustainable transport.
- Help us keep our homes easy.
- Improve farming and encourage vegan diets.
- Restore nature to absorb more carbon.
- Protest forests like Amazon.
- Protect the oceans.
- We are working on these 8 actions to help and tackle the climate crisis for present and future.
- Save energy at home.
- Walk, like a take public transport.
- East more vegetables.
- Consider you travel.
- Throw away less food.
- Reduce, revise, repair and recycle.
- Change your home's source of energy
- switch to an electric vehicle.

These six factors are responsible for affecting climate.

- Pressure and wind system
- Attitude
- Relief features
- Latitude
- Ocean currents
- Distance from the sea (continentality)

These are the direct manmade climate change effects which gives our living challenge are following

- Rising maximum temperature
- Rising minimum temperature
- Rising sea levels
- Higher ocean temperatures
- An increase in heavy precipitations (Heavy rain and hail)
- Increase in the proportion of violent tropical cyclones.
- Increase in aridity and droughts.

Conclusion

Now the time to awakened human society to maintain the nature according to its own form. Ideal living situation always like to follow the climate as it is. Government must takes steps according to nature demand society. Responsibilities of mankind should be defined in favour of nature protection so that the main pollution control will be maintained to balance population, natural fuel consumption, (solar energy) ozone layer protection and fertility of land. In case of India we need more efforts to maintain climate cycle because we destroying. This so fast in past years. So it is essential that we must take our mother nature worship as we did in our ancient times so we maintain the environment and nature according to our needs and feel the blessings on this planet. Climate change impact in India is observed in internal and external matters. Like the problem of naxalism and refugees these days increases it causes various disformity in society. Thus we need to take 8 solutions and 8 actions to maintain the climate pattern. Otherwise we face 10 effects of natural climate change and six factors which are affecting our nation's climate

which is unique in world. This is an awakening and warning time for us to maintain and conserve our climate as our moral duty.

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