

Climate Change : A Major Factor For Inducing Human Migration

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Abstract- Climate change has suddenly put the entire world under pressure of how to exist on the planet earth. This year witnessed temperature rise and extreme weather disturbances like forest fire, hurricanes, melting of glaciers and ice at north and south poles etc. The much awaited report is unequivocal that there is no ebb to human induced greenhouse emissions. Studies show that today 1% of the world is barely livable hot zone and by 2070, this portion may go up to 19%. Billions of people at present call this place their home. Where will they go????? Multidimensional researches are going on at various International organizations and Institutes show that at present 1% of the earth surface is so hot that it can hardly support any life. It is estimated that by the year 2070 this percentage may go upto 19%. This extra 18% is presently inhabited billions of people and the problem is rehabilitation of such a huge population by then.

Key words: climate change, refugees, migration, UNHCR, rehabilitation.

Introduction- Climate change is not a novel phenomenon and has been several times previously witnessed by history. The major difference between the previous climate change and the present one is that previously it was all natural, but the current climate change is unprecedented as its origin is clearly anthropogenic. It is the most alarming crisis of our time which is the driving force for displacement of populations in search of safe place. The consequences of climate change are already being paid by the entire human race, but the vulnerable people living in environmentally fragile areas are severely affected. The climatic hotspots are the most prone places as they cope with multiple climate change impacts. The stateless, refugees and the internally displaced people (IDPs) are the frontliners of climate emergency. The population inhabiting the climatic hotspots is highly vulnerable to climate emergency. The continuous effect of disaster over disaster leave such communities impoverished of all the primary needs and expose them to all forms of miseries. Researches have shown that extreme weather conditions are the main factor for migration of populations.

According to a report of New York Times, the planet will become warmer than ever before in the coming 50 years. The paper writes that the study of history shows that the ancient civilizations inhabited the places with places having narrow range of temperature fluctuation, as it was good for agriculture. According to a study published in the journal Proceedings of the National Academy of Sciences, US, temperature of the planet Earth will see a greater rise of temperature in the coming 50 years as compared to the last 6,000 years back. By the 2070, more of the earth's surface will be like the Sahara desert which at present covers less than 1 percent of the earth's land surface could cover nearly a fifth of the land, potentially placing one of every three people alive outside the climate niche where humans have thrived for thousands of years. A 2017 study in Science Advances found that by 2100, temperatures could rise to the point that just going outside for a few hours in some places, including parts of India and Eastern China, "will result in death even for the fittest of humans."

Historical Record- History has witnessed that the major force leading to sudden displacement or migration of populations is natural disaster. Few decades back the International forums have become more conscious over the issue of climate change and a worldwide concern is going on to tackle climate change. They are trying to frame a pattern, especially of human migration occurring as a result of change in climate like- rain, availability of cultivable land, rise in temperature etc.

From the known history of the civilization extreme weather conditions are the result of climate change, not only in the recent past and at present also. Tracing back the written history in 1896, a Swedish scientist Svante Arrhenius was the first to anticipate that as there will be change in atmospheric CO₂ levels, temperature of the earth's surface will also show a related change due to greenhouse effect. In 1938, Guy Callendar showed that CO₂ increase in Earth's atmosphere is responsible for global warming. Work on correlation of atmospheric CO₂ and temperature rise of earth's surface is done by researchers from the Indian Institute of Technology, Kharagpur (IIT KGP). It is predicted that the pattern of human migration that has taken place in history (at the time of Indus Valley Civilization) is very similar to the one that would take place — or is already been happening. The areas most affected are the coastal regions which are low lying and many small islands have submerged due to rise in sea level.

The Internal Displacement Monitoring Centre (IDMC) collected data of climate refugees in 2018, and the displacement trend was on rise. Analysis of the data showed that:

- *By the end of the year, some 1.6 million people displaced by disasters were still in camps or places out of their homes.*
- *At 2.678 million people, India had the highest number of people displaced by disasters and extreme weather events.*
- *Of the total new 28 million internally displaced people in 148 countries, 61 per cent were due to disasters, 39 per cent were due to conflict and violence.*
- *Storms displaced 9.3 million people and floods 5.4 million.*
- *Similarly, more countries reported displacement due to disaster than conflict and violence: 144 for disasters and 55 for conflicts and violence.*

“Climate change is destroying our path to sustainability. Ours is a world of looming challenges and increasingly limited resources. Sustainable development offers the best chance to adjust our course.”

Ban-ki-Moon

Such hard and harsh environmental changes force people to leave their niches not only due to environmental reasons but also due to large number of social, political and economic conditions prevailing in the region.

Human trafficking is a very inhuman act in this era of human rights at top priority and climatic disasters add up to such problems. According to the Overseas Development Institute: “There could be up to 325 million

extremely poor people living in the 49 countries most exposed to the full range of natural hazards and climate extremes in 2030.” Michael B Gerrard, Andrew Sabin, Professor of Professional Practice and Director of the Sabin Center for Climate Change Law, at Columbia Law School, US said: “At least 21 million people globally are victims of human trafficking, typically involving either sexual exploitation or forced labour. This form of modern-day slavery tends to increase after natural disasters or conflicts where large numbers of people are displaced from their homes and become highly vulnerable. In the decades to come, climate change will lead to a large increase in the number of people who are displaced and thus vulnerable to trafficking.”

United Nations High Commissioner for Refugees and his Role

This agency is dedicated to people who are displaced forcibly or are stateless due to some other reason, framed by UN Refugee Agency. The primary function of the agency is to provide humane conditions to the refugees with the help and support of United Nations. The UNHCR strives to ensure that every refugee can seek asylum in another state, and to return home voluntarily, along with protecting his human rights.

The agency caters and focuses on the following areas:

Legal and Policy Matter. Provide legal guidance and support to the displaced people during climatic disasters and climate change, and arrange for international relief to protect their rights.

Function. Focusing on environmental problems and coming up with the root causes of displacement and why people are displaced.

Environmental footprint. Improving environmental sustainability for future generations by reducing greenhouse gas emissions and checking global warming at large.

UNHCR plays a leading role in helping the people who are affected by climate change and forced to leave their place internally and feel difficulty in coming back safely. The team of UNHCR, when approached helps such people by supporting them to register for government relief program and documentation related to it. They also provide them food, shelter and hygiene. UNHCR has taken up the work of raising awareness about climate change among people and also address protection for disaster displaced refugees at multidimensional level and bringing it to the global platform. Since 2015, UNHCR is a standing invitee to the Platform on Disaster Displacement (PDD) and is also a member of its advisory group. It has collaborations with organizations such as International Organization for Migration, Platform on Disaster Displacement, United Nations Office for Disaster Risk Reduction, United Nations Development Programme and many other key actors, to respond to these challenges and help protect the rights of refugees globally. All these organizations work in coherence, to educate people by knowledge sharing, running awareness camps, support by providing legal guidance. There is a regular monitoring unit for disaster risk reduction, climate protection, clean and environment friendly energy and environmental sustainability.

Climate Migration Pattern

There is a wide disparity between the climate migration pattern in developed and developing countries across the globe. It is of no doubt that the economic imbalance is the soul force behind it.

Pattern of Climatic Migration in Developing Countries

Studies show the relation between change in climate and human migration at international as well as domestic level, whether the conditions are natural or manmade.

1. Migration to safer place which are more stable and can reduce the risk of exposure to recurrent flood or drought.
2. Members of a family migrate to different flourishing places for economic resources and from there support their family members left behind and try to cope up with financial calamity.
3. Migration helps in increasing household assets and earning thereby helping the families to cope up the adversities caused by climate change.
4. Migration leads to reduction in the number of dependents in a house, especially during natural calamities like drought or lean season, which increases food security for the members of the family left behind.
5. Lastly, on the commencement of favorable condition the returning migrants bring with them new technologies and skills back to their communities. This helps in improving their financial status and helps them to recover from setbacks.

Extensive investigations have been done to study the impact of climate change on human migration pattern. The work is carried out at anthropological level, surveys are carried out on how the climate change and migration related. The research work largely emphasizes on “agricultural pathway”, in this it has been observed that how factors like extreme temperature fluctuation, variation in rainfall pattern, etc. impacts migration. Apart from all such reasons the emigration is still restricted depending on various factors as- to who will emigrate, from which place and to which destination. *“In one statistical study in Mexico, Raphael J. Nawrotzki et al. found that longer droughts and periods of anomalously high temperatures increased the propensity for rural-urban migration yet had relatively little impact on other forms of migration.”*

Strong correlations have been observed between climatic anomalies and pattern of migration, but the effect is not uniform and depends upon various socio-economic and demographic factors. The climatic calamities expose vulnerabilities of the society underlying. There is still a vast divide existing between the rich and poor, the poor lack the impetus to move due to social and financial constraints. *“Jesse Ribot et al. found that narratives of impending climatic changes themselves, quite apart from actual experienced impacts, have engendered anxiety regarding the future potential for productive livelihoods in rural Senegal.”*

The climate-migration linkages are studied mainly for agricultural pathway, as they are severely affected population, but studies are also done on pastoral-nomadic livelihood forms and in coastal areas which are prone to sea-level rise, the forest population and the urban masses as well. Findings are as e.g., in pastoralist systems, climate displacement is less as the nomadic herders constrains their mobility due to fear of loss of livestock. Furthermore, many low-lying delta regions remain favorite migration destination zone despite their exposure to storms and sea-level rise because of the richness of water resources present there.

Pattern of Climatic Migration in Developed Countries

Mostly, the research focuses on climate migration in developing countries, but in the recent years focus has been done on developed countries also. Main reason for less focus on developed countries is their financial strength and less dependency on environmental changes as the populations are highly urbanized. Yet there is an example of North America, where a high level number of migration is observed among masses for the past four decades at places which faces dryland problems in plains as well as the mountain regions

Conclusion

Climate patterns have been changing globally over the last century, triggering extreme weather events including hurricanes, heat waves, famines and droughts. Working continuously on extreme weather events, the Intergovernmental Panel on Climate Change (IPCC) has projected that, at the current rate of climate change, global temperatures are likely to average 1.5°C above pre-industrial levels at some point between 2030 and 2052. Though the data shows a slight increase, which is under the range of daily variability, yet this rise of 1.5°C will result in cascading impacts on ice sheets, ecosystems, and productive systems that will fundamentally alter habitability when spread over the entire land surface of the planet. The effects will not be uniform, we know that the high latitudes are warming at twice the rate of the rest of the world while dry lands are expanding day by day, the deserts are spreading, coastal areas submerging; forests catching fires, mountains are being eroded

Climatic condition can be seen as the envelope in which all economic and living activities takes place, and these extreme weather changes could spell significant disruptions for modern society, without differentiating between the economic divide. Though nature has bestowed all its creations with varied degree of adaptability, but such extreme weather conditions will force the human population for migration. As we know in the coming time more of the earth will become barren and uninhabitable, there will be severe problem of space to accommodate the entire human population.

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