

Environmental Refugees and Climate Change Phenomenon

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Abstract

The paper reviews the recent attempts to recognise the status of climate change refugees in the world. The climate change phenomena is recognized as a hoax by the people and thus these people are not recognized by the United Nations in the definition of 'refugee'. In the first section of the text, the researcher will mention about the problem of climate change and its impact on people and sustainable development. The researcher mentions about the climate change phenomena and how it is not a hoax but a very serious problem in the current society. The researcher addresses the issue of climate change and the natural disaster that occurred at Andaman and Nicobar Islands and the surrounding areas due to the movement of tectonic plates. The researcher also states various measure taken by the government of India to combat the climate change issues and also the steps taken by the government during the natural disaster of 2004. The researcher also gives various suggestions and recommendations going forward.

The paper seeks to answer the question: *Whether climate change is happening and whether environmental refugees should be recognized and included in the definition of refugees?*

KEYWORDS: Environmental Refugees; Migration; Earthquake; Climate Change; International Conventions.

Problem Statement

The paper addresses the issue of Sustainable Development caused due to Climate Change affecting the rehabilitation of people and the growing number of climate refugees in India. Research and findings revealed that climate change has been happening since a very long time mainly due to the Industrial revolution of Great Britain. Over the past few decades, India has observed some serious natural calamities including earthquakes, cyclones, floods as well as drought in various regions of the country. The United Nations have not recognised climate refugees, as the definition of refugees includes only those that are displaced by political crisis or war. Even in the main International conventions on refugees like the 1961 Refugee Convention and its 1967 Protocol the meaning of refugees do not include climate Environmental Refugees. This paper will focus on the idea, 'No climate, no climate refugees'.

Moreover, due to increasing population in India and the need for more and more natural resources, India has observed poor planning in infrastructural development like dam building, pumping gas without re-filling, fracking for oil, underground mining etc. leading to the movement of tectonic plates beneath the Earth's crust. The melting of the Himalayan Glaciers is a direct result of the Global Climate Change Phenomena. According to geophysicist John McCloskey, climate change provides the last bit of power to cause the earthquake when an earthquake fault is primed, calling it "*the pressure of a handshake*". Climate change has not been accepted by many countries as they believe that climate change is just a hoax. India at the state as well as the central level are taking various initiatives to create climate change awareness. The researcher will try to answer the following questions with the help of his empirical research through this paper –

1. Whether the term '*refugees*' should include environmental refugees or is climate change a hoax?
2. Whether the climate change phenomena was responsible for the 2004 Sumatra-Andaman earthquake and subsequently the Indian Ocean Tsunami of 2004?
3. Whether any steps are being taken at the global and local level to resolve the issue of climate change to assist in achieving sustainable development?

Literature Review

Norman Myers in his journal article, "*Environmental Refugees*" mentions about the increasing concern of the people being displaced from their hometowns as well as their home countries. He mentions about the increasing need to have laws at International as well as at National level to recognise the '*Environmental Refugees*' and to aid them in their displacement. Myers mentions how these people have no option than to use illegal means to travel and settle in other countries. He also compares the vulnerability of these people in the year 2010 and 2025 by focusing on the issue of food and agriculture, water shortage, deforestation, population, poverty and global warming etc. Myers also states the approaches that can be used to facilitate the people who are environmentally displaced by means like foreign aid, decreasing foreign debt, and to have an approach of promoting sustainable development. The author further states that

"The essential message is this: for all countries, whether developing or developed, the overriding objective must be to reduce the motivation for environmentally destitute people to migrate by supplying them with acceptable lifestyles. For developed countries in particular, the prospect will increasingly become a case of

*"export the wherewithall for sustainable development for communities at risk – or import growing numbers of environmental refugees."*¹

Author Architesh Panda in his journal article "*Climate Refugees: Implications for India*" focuses on the climate refugees within India mainly due to droughts and famines and the increase in sea level mainly in the mega cities like Kolkata and Mumbai. He also mentions about the non-recognition of climate refugees at the International level and raises the question as to who will be responsible for their rehabilitation and protection. The author states that there are subsequent gaps in several areas –

*"First, the international community is yet to recognise this new category of migrants. There is no consensus on the definition and the status of climate refugees owing to the distinct meaning the term refugees carry under international law. Second, there are still gaps in understanding how climate change will work as the root cause of migration. Third, even if there is recognition of climate refugees, who is going to take the responsibility to provide protection and assistance? Fourthly, more emphasis has been given to international migration due to climate change. But the people may also move to other places within the countries. There is a need to recognise the displacement of people within the countries so that proper action can be taken to address their problem."*²

Authors Stellina Jolly and Paramjit S. Jaswal in their article "*Climate Refugees: Challenges and opportunities for International Law*" mention about the need for law for the people being displaced due to natural calamities. The paper talks about the non-recognition of the '*Climate Refugees*' and suggests actions that the states should take to rehabilitate these people. The paper states –

*"Climate change will affect all countries, in all parts of the globe. But its impacts will be distributed differently among regions, generations, age classes, income groups, occupations and genders ... (Both Authors) tries to analyse the extent to which the climate displacement find itself part of current international framework including climate change regime and refugee regime."*³

Various other journal articles also mentions about the growing need to recognise climate change refugees or environmental refugees like "*Environmental Refugees? Classifying Human Migrations caused by Environmental Change* by Diane C. Bates" as well as "*Climate Change, Disasters and Migration:*

¹ Norman Myers, *Environmental Refugees*, Vol. 19, No. 2 SPRINGER

² Architesh Panda, *Climate Refugees: Implications for India*, Vol. 45, No. 20 ECONOMIC AND POLITICAL WEEKLY.

³ Paramjit S. Jaswal and Stellina Jolly, *Climate Refugees: Challenges and Opportunities for Internal Law*, Vol. 55, No. 1 JOURNAL OF INDIAN LAW INSTITUTE.

Current Challenges to International Law by Erika Pires Ramos". These articles clearly shows the need for having National and International laws in place for the people affected due to natural calamities.

Reports and data from various news agencies also shows the existence of the climate change phenomena and the increasing number of environmental refugees like *The Diplomat*, *Times of India*, as well as *The Economic Times*. Indian Government showed its concern on international peace and security by climate related disasters to the United Nations Security Council in an article published in *Economic Times*.

Outline of the scope of Analysis

There are a lot of natural calamities happening in India but this paper will focus on the 2004 Sumatra-Andaman earthquake which subsequently led to the Indian Ocean Tsunami of 2004. As there is no recognition of environmental refugees at the National as well as the International level the analysis will focus on the need for recognising those who are affected by natural disasters by protecting them and for their rehabilitation. The United Nations in their conventions play a major role in setting up support system for these people and to help them in providing a sustainable environment.

Therefore, this study will mainly focus on the recognition of 'environmental refugees' and the setting up of laws at both national and international level to protect the fundamental rights of these people and to help promote sustainable development.

Methodology

The main rationale behind the study is to examine the status of environmental refugees and the climate change phenomena with reference to sustainable development. The main problem is the non-recognition of environmental refugees and having no laws in place to protect their fundamental rights both nationally and globally. The main objective of this research is highlight the issue of environmental refugees and to show the need for giving them protection and rehabilitation. Research hypothesis is that if the environmental refugees are recognised they will have a law in place to protect and rehabilitate them.

The author uses qualitative data to approach the problem of whether climate change is a hoax and the recognition of environmental refugees. The author engaged in secondary research by referring to various online journal articles as well as newspaper articles to draw a conclusion on the issue of environmental refugees and climate change phenomena with reference to sustainable development.

The data was only limited to the country of India as the main focus of the researcher was climate change and environmental refugees with reference to India.

The 2004 Sumatra – Andaman earthquake

The giant earthquake that occurred in the year 2004 ruptured spanning a distance of about 1,500 kilometres and lasted for about 10 minutes. Due to this massive earthquake and the movement of the tectonic plates below the Earth's crust it resulted in Tsunami. Tsunami was caused as the moved of the tectonic plates happened below the water leading to sudden movement of water. "As the rupture propagated, it caused the ocean floor to spring back to the west by as much as 6 m (20 feet), as well as uplift by 2 m (6 feet)."⁴ At some places the water waves grew as high as 100 feet resulting in great destruction of trees as well as houses. "As of March 2005, 10,700 people were listed as dead and 5,600 others were still missing. Around 6,50,000 were left homeless."⁵

The mainland India felt a great impact of the Tsunami especially the coastal area of Tamil Nadu and Madras. In Tamil Nadu, the district of Nagapattinam suffered the great loss of life and property with as many as 7,100 bodies were recovered and 1,570 went missing which included more than 2,500 children.⁶ Around 3,500 people died in the villages of Keechanguppam and Akkarapatti.⁷

The Andaman and Nicobar Islands were at the epicentre of the earthquake and some of the Islands moved as much as 100 feet southwest. "*As of late January 2005, 1,899 were confirmed dead and another 5,537 were missing on the Andaman and Nicobar Islands. Several entire communities were washed away. Almost 300,000 of 356,000 people living on the islands were affected. More than 40,000 were left homeless and moved into refugee camps. 9,000 were evacuated to Port Blair.*"⁸ In the flat Island of Car Nicobar the entire villages and an Indian Air Force base was swept away causing as many as 1,200 deaths.

Therefore, the earthquake as well as the Tsunami caused great harm to the people and property. Almost all of the survivors of this catastrophe were left homeless and due to the Tsunami there was no safe drinking water left for these people. The survivors of this event had to be rehabilitated for which the government helped with the support of the Indian Army.

⁴ *What Happened During the 2004 Sumatra Earthquake*, CALIFORNIA INSTITUTE OF TECHNOLOGY, <http://www.tectonics.caltech.edu/outreach/highlights/sumatra/what.html>

⁵ Jeffrey Hays, *Great Tsunami of 2004 in India and the Andaman Islands*, FACTS AND DETAILS, <http://factsanddetails.com/asian/cat63/sub411/item2542.html>

⁶ *Supra*

⁷ *Supra*

⁸ *Supra*

Analysis

1. Climate Change and Environmental Refugees

Climate change means the change (Increase) in the global average temperature leading to an increased occurrence of catastrophic events. Over the years, summers are becoming hotter with heat waves observed in various parts of India leading to drought, famines and the melting of the glaciers. This clearly points towards the increase in the average global temperature, which has led to a sudden and rapid change in the climate. Catastrophic events like floods, famines, earthquakes have increased over the decades. All this point out towards the negative changes in climate that has happened due to “*extractivism*” as well as the misuse of natural resources. Climate change is a global issue, as it not only affects the people of one nation but of the globe as a whole. To keep the global temperatures under control a great deal of change is required in our economic and political systems. Industrialization of Britain and growing of United States of America has led to an inequality in terms of carbon emissions around the globe. This not only affects the present generation but also the future generation of humans as well as non-humans. The rise in the global temperature of 0.8 degree Celsius we observe today is mainly because of the carbon emissions that dated back to the Industrial Revolution.⁹ With an increase of just 0.8 degree Celsius we are already experiencing many alarming impacts, including the unprecedented melting of the Greenland ice sheet in the summer of 2012 and the acidification of oceans far more rapidly than expected.¹⁰

The main conventions of refugees i.e. the 1951 Refugee Convention and its 1967 Protocol, includes only those displaced by political crises and war in the definition of refugees. Thus, environmental refugees are not included in the definition of refugees. Various international law instruments like the Organization of African Unity Convention provides human rights protection to people who are internally displaced including those affected by climate change. The 1984 Cartagena Protocol on Refugees includes those whose health, security and livelihood is affected by something beyond their control which includes environmental refugees but the only problem with such conventions is that they apply only to a specific region. New Zealand proposed an exclusive visa for those affected by climate change on humanitarian grounds whereas the idea of environmental refugees is not accepted at the global levels. In the case of the 2004 Tsunami as well the people displaced by the earthquake as well as the Tsunami were not given the status of environmental refugees as it is still not recognized by the United Nations in their conventions. As they are not given the status of a refugee, they are not allocated the funds for rehabilitation and resettlement and it depends on the countries helping them on humanitarian grounds. Giving such people the status of an environmental refugee will also protect their fundamental rights and the whole question of recognizing environmental refugees is to protect their fundamental rights and the proper implementation of human rights.

⁹ Klein, N. 12

¹⁰ Klein, N. 12

2. The 2004 Sumatra – Andaman earthquake and the Tsunami

Earthquakes takes place when there are tectonic movements deep below the Earth's crust. In the current catastrophic event, there was tectonic movement below the surface of water that triggered the 2004 Indian Ocean Tsunami. As mentioned by geophysicist John McCloskey, climate change provides the last bit of power to cause the earthquake when an earthquake fault is primed, calling it "*the pressure of a handshake*".

Due to increasing population in India and the need for more and more natural resources India has observed poor planning in infrastructural development like dam building, pumping gas without re-filling, fracking for oil, underground mining etc. leading to the movement of tectonic plates beneath the Earth's crust. The melting of the Himalayan Glaciers is a direct result of the Global Climate Change Phenomena. These large projects have impacted negatively to the environment including the depletion of the Ozone layer as well as has led to the contamination of ground water. Earthquakes are triggered when the tectonic plates move and human activities like fracking for oil or underground mining have led to massive vibrations below the Earth's crust.

Therefore, the 2004 Sumatra – Andaman earthquake followed by the Indian Ocean Tsunami of 2004 was a direct result of climate change.

3. Steps taken nationally and internationally as well as during the 2004 earthquake

Global Environmental Change (GEC) has become a wide spread topic in today's world. Individuals and governments are acting collectively to reduce the effect of carbon on GEC and climate change. Like other countries, Government in India is also focusing on GEC and has laid many policies regarding Climate Change. In India, many citizen movements, domestic policy proposals by state and central government, as well as many international negotiations have been implemented to reduce the country's carbon footprints.

Citizen movements have actively played a major role in responding to GEC in India. In April 2008, the NDTV-Toyota Green campaign was launched which was the first India's nationwide campaign to save the environment. The campaign is about creating environmental awareness involving the people of India to make a difference. Many Bollywood stars, corporates and common man raise money together and donate to various environmental causes. Greenathon 4 raised 8.89 crore inr (1.5 million dollars) to benefit 508 villages.¹¹ There are many other citizen movements in India to respond to GEC.

¹¹ "NDTV's Greenathon- An Environment Initiative." *NDTV's Greenathon- An Environment Initiative*. N.p., n.d. Web. 16 Jan. 2019. <<http://green.ndtv.com/>>.

Moreover, almost every state in India has its own policy to respond to GEC. The Maharashtra-ENVIS (Environmental Information System) Centre has established a Climate Change–Interactive Forum to understand and define “climate change” which helps undertake mitigation measures.¹² Government of Maharashtra has signed a MoU with The Energy and Resources Institute (TERI) to incorporate climate change issues on a priority basis in its plans, policies, and projects.¹³ The project focuses on agriculture, temperature, rural and urban livelihood systems etc. The Government of Maharashtra planned various training workshops on adaptive policy-making and vulnerability assessment.

Similarly, at national level, the Government of India has undertaken various measures to respond to GEC. Central Government started the National Action Plan on Climate Change (NAPCC) on 30 June 2008 outlining the strategies for climate change. The Ministry of Environment and Forests (MoEF) is the nodal agency for climate change issues in India.¹⁴ It has created increased awareness and enhanced research by giving grants for wide ranging programmes. The ministry underlines the need for collective action for the protection of the environment. The Government of India through MoEF established ENVIS as a plan programme in December 1982. Large numbers of nodes, called ENVIS have been established to cover the broad subject of environment with a Focal Point in MoEF. These nodes create specific environment-related subject websites to increase awareness of GEC. Over the recent years, MoEF has fulfilled its objectives of environment awareness.

Internationally, the Ministry participates in the sessions of Inter-Governmental Panel on Climate Change (IPCC) and engages bilaterally with several countries in the field of climate change.¹⁵ India is a member of United Nations Framework Convention on Climate Change (UNFCCC), which proposes international negotiations on climate change like Kyoto protocol. India became a part of the Kyoto Protocol on 26th August 2002.¹⁶ India is a non-Annex 1 country thus has low restrictions on carbon emissions than the Annex 1 countries. Kyoto protocol commits members by setting internationally binding emission reduction targets. Indian Government has been an active member in international negotiations on Climate Change.

Therefore, different responses to Global Environment Change were taken by jurisdictions of India. The citizens, state government, central/national government as well as international negotiations has helped India to reduce air pollution by about 17% from 1987-1990 to 2004-2007.¹⁷ India has been very successful in increasing public awareness on Climate Change through its various programs and has led to environmental education.

¹² India Second National Communication to the United Nations Framework Convention on Climate Change

¹³ *Supra*

¹⁴ India Second National Communication to the United Nations Framework Convention on Climate Change

¹⁵ Shukla, P. R. *Climate Change and India: Vulnerability Assessment and Adaptation*. Hyderabad: Universities, 2003. Print.

¹⁶ "Status of Ratification." *Status of Ratification*. N.p., n.d. Web. 16 Jan. 2019. <http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php>.

¹⁷ "Welcome!" *Has Environmental Regulation Been Successful in India?* N.p., n.d. Web. 16 Jan. 2019. <http://www.ideasforindia.in/Article.aspx?article_id=4>.

During the catastrophic event of 2004, Government of India declined financial help from the United Nations as well as other countries and instead helped the Maldives and Sri Lanka showing that it is no longer a weak Third World country. The Government of India responded very quickly and efficiently to this disaster with the military collecting bodies, building shelters, and setting up of medical camps from the very next day of the Tsunami. Large donations were given by private as well as corporate bodies within India and the survivors were given proper food and drinking water. In the worst hit areas people were kept in relief camps and without any help from the outside they moved back to their homelands to rebuild their lives. *“The government gave \$2,325 to the family of each confirmed tsunami victims. They families of the missing were worried they would not be compensated. The government also paid for the \$500 operation for women, who had been sterilized and lost off all their children in the tsunami, to have their sterilizations reversed.”*¹⁸. In the Andaman and Nicobar Islands, the Indian government with the help of the relief teams helped the survivors. Malaria was widespread and many other diseases were spreading. Thousands of people were evacuated using the air strip at the island by the government.

Responsibilities between current and future generations (The concept of Sustainable Development)

The most important discussion when it comes to climate change is about the current and the future generation. The climate change we are observing today, is primarily because of the emissions by human actions of the past. *“One problem... is that much of the damage to the climate was caused by the policies of earlier generations”*.¹⁹ This thus means that our actions today have a great impact on climate change that happens in the future. Moreover, in the past there were no regulations on the amount of carbon emitted, as no one knew at that time about the catastrophic effects of those emissions like we know today.

Personal Perspective

Personally, the author believes that climate change is happening around us and the rate of change is accelerating. Climate Refugees cannot be recognized by the United Nations unless they recognize that climate change is happening. The summers are getting hotter in India and the rate of snowfall is decreasing over the years. It has also been observed that the Himalayan Glaciers are melting and the rate of rainfall is also imbalanced. The recent case of imbalance of rainfall was in the holy lands of Kedarnath where excessive rainfall destroyed the whole area and people had to be rehabilitated. Moreover, the frequency of Earthquakes are also increasing over the few years due to the extraction of oil and other natural resources from the earth's surface. As the population keeps on increasing the need for natural resources will also

¹⁸ Jeffrey Hays, *Great Tsunami of 2004 in India and the Andaman Islands*, FACTS AND DETAILS, <http://factsanddetails.com/asian/cat63/sub411/item2542.html>

¹⁹ Caney, S. 756

increase leading to unsustainable development. The 2004 Sumatra – Andaman earthquakes and the Indian Ocean Tsunami was a result of the global warming as other human related reasons like poor infrastructural development, extraction of natural resources like oil, gold, coal mines.

Therefore, the researcher has observed that as environmental refugees were not recognized by the United Nations, the survivors of the 2004 earthquake and Tsunami relied on the voluntary help of the local government and people. The protection of their fundamental rights are also jeopardized due to their non-recognition as refugees.

Recommendations

- The researchers recommends that people who are displaced with events beyond the control of human beings should be included in the definition of refugees. No doubt it is a very broad definition but it will lead to the inclusion of climate change refugees and other human beings where they have to displace from their homelands due to unforeseeable events beyond human control.
- Moreover, specific conventions should be made by the United Nations to fight the problem of climate change by promoting sustainable development without the depletion of natural resources.
- The United Nations should also make special conventions for the environmental refugees due to their increase in numbers.

Conclusion

Therefore, with the help of secondary data, the researcher comes to the conclusion that yes, climate change is happening around us at an alarming rate and it is not a hoax. Environmental Refugees should be recognized by the United Nations and their fundamental rights should be protected. There is a dire need for a convention for the protection of environmental refugees who have to be displaced forcefully due to natural calamities which are beyond the control of human beings. The 2004 Sumatra – Andaman earthquake and the Indian Ocean Tsunami was a result of climate change that is happening around us and as many as 6,90,000 people suffered this catastrophic event. This event resulted in large scale displacement of people within the nation.

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