



Human Tide: An Environmentally Induced Migration

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Abstract

Human migration due to environmental degradation produces environmental refugees which has become a burning issue now-a-days for many countries. Although it originates initially due to ecological disruptions, it creates various complex socio-economic problems. The objectives of this paper are to find out the causes of the rapid generation of environmental refugees, to discuss about the associated problems like rehabilitation, resettlement, social security, economic stability, and political conflict, role of governments as well as the NGOs and final recommendations to mitigate this problem. The study reveals that natural hazards like flood, earthquake, desertification etc., pollution and climate change due to anthropogenic activities like rapid industrialization and unplanned urban growth, construction of large developmental projects like dams are the main causes of the generation of environmental refugees. Changing consumption pattern, loss of biodiversity, deforestation, illegal poaching as well as trading of wild animals, population explosion, illiteracy, lack of food and safe drinking water etc., are the indirect causes of this problem. Some remedial measures are suggested to mitigate this problem. Those are: biodiversity conservation, proper disaster management plan, adoption of low carbon economy and green technology, afforestation and reforestation, sustainable development, conduction of EIA before any developmental project, providing legal protection, proper resettlement and suitable alternative employment to the affected people, conduction of awareness campaign and regular health check up etc.

Keywords: EIA, Environmental Refugee, Green Technology, Low Carbon Economy.

Introduction

Population dislodgment, due to environmental degradation or unplanned developmental activities, is one of the key challenges envisaged by modern civilisation. The number of individuals who have been deracinated due to battles and communal mutiny has amplified radically in the past few decades. The phrase 'environmental refugee' was first uttered by Essam El-Hinnawi, an Egyptian Professor at the National Research Centre of Cairo, in 1985. Individuals who are compelled to depart their long-established territory, momentarily or perpetually, due to any discernible ecological commotion which threatened their subsistence as well as critically exaggerated their normal lifecycle are known as 'environmental refugees'. Those individuals can not get safe and sound status of living in their native soils due to many ecological disruptions like deforestation, desertification etc. People have discarded their native habitats for ever or temporarily with petite chance of an anticipated arrival¹. The objectives of this paper are to identify the actual reasons of hurried generation of refugees produced mainly due to ecological disruptions, to converse about the related dilemmas like rehabilitation, resettlement, social security, economic stability, and political inconsistency, role of governments as well as the NGOs and final proposals to alleviate these problems.

Material and Methods

The methodology of the study is purely empirical and literature based. The datas were collected from books, news papers, reputed journals, scientific articles etc. In addition author's

perception and view regarding this topic have been considered while preparing the paper.

Sources of generation: Environmental refugee' can rapidly be generated due to many reasons such as natural or man-made. Each year many people, throughout the world, have been provisionally expatriated from their territory due to natural catastrophe like earthquake, flood, cyclone etc. These temporarily displaced people can be termed as natural refugee². Many people including rural and indigenous tribal villagers have been forced to abscond their age-old original habitat due to various developmental projects like construction of very large dams, roads, mining activities etc. Productivity of agricultural lands is lost due to excessive use of harmful chemical fertilisers, herbicides, insecticides and pesticides resulting into rapid human migration towards the urban areas in search of food, shelter, employment, education and better quality of life. Population rate in some countries including India, Bangladesh and some other underdeveloped as well as developing countries is increasing at a very faster rate. More population means overutilization as well as rapid degeneration of natural resources. Once the carrying capacity of any particular place is exceeded it could not support the inhabitants of that area and thereby resulting into forced migration of the people of that area to a new place (within or outside the host country) in search of better standard of living like clean drinking water, pure air, sufficient nutritious food, safety etc. If the displacement is occurred within the native country then those people can be termed as Internally Displaced People (IDP)³. Population,

poverty and pollution are interrelated to each other. Overpopulation leads to poverty and environmental pollution and thereby making the surrounding ecosystem unsuitable for inhabitants and owing to that reason individuals are compelled to leave that place. Throughout the history of human civilization many people have been left their original habitat or country willingly or unwillingly due to political conflict, religious pressure, communal problem, fear of terroristic activities and warfare resulting into mass generation of environmental refugees. Today is the age of globalisation. Rapid industrialisation, unplanned developmental activities, materialistic consumption pattern *etc.*, have resulted into global warming and climate change consequently incidences of flood, drought, desertification, acid rain, environmental pollution, melting of polar ice, loss of biodiversity, spreading of infectious diseases, sea level rise, uneven rainfall, tsunamis *etc.*, is getting momentum. Many low land areas have amalgamated under sea water. As a result countless number of people has become homeless. The rapid generation of displaced people due to climate change can be called as climate refugee^{4,5}.

Consequences: The natural resources degraded by the existence of environmental refugees consist of forest cover, land (including agricultural farm land), water (ground and surface water), soil, wildlife, biodiversity *etc.* Other issues comprise population pressures, malnutrition, and unemployment problem, development of slums in the vicinity of urban areas⁶, spreading of infectious diseases, poor sanitation and waste disposal system along with socio-political conflicts. This is largely due to the set up of unplanned or feebly planned camps for the environmental refugees. In such a situation, extreme deterioration to the environment, fight with local dwellers for inadequate natural resources, or damage of ecosystem services are very often not wanted by the host communities, a veracity which could well manipulate a government's compliance to entertain environmental refugees. The subsequent part represents an outline of the prime adverse impacts caused by the environmental refugees:

On agriculture and food production: It is generally seen that open agricultural lands, as it is easily available, are very often preferred as campsite establishment for environmental refugees by the governments as well as by the NGO's. As a result agricultural production of that area is hampered followed by depletion of overall food production of that country. Loss of productivity to these agricultural lands is envisaged to have considerable economic blow on the dependent segments of society.

Water pollution and spreading of infectious diseases: Excessive population pressure due to the abrupt presence of environmental refugees creates demand of water on the surrounding aquasystem and therefore existing water resources including ground water aquifers are further depleted as well as degraded. Surrounding surface water bodies are also contaminated due to discharge of organic wastes generated

through domestic purposes like cleaning, bathing and deposition of human excreta. As a result water is getting contaminated and polluted with harmful microbes and other impurities leading to spreading of water-borne infectious diseases.

Waste generation and disposal problem: Huge amount of waste could be generated due to the occurrence of environmental refugees. Lack of proper waste management system can increase the intensity of this problem to a large extent. Again disposal of those wastes could become a headache for the local authority.

On health status: Presence of environmental refugee exerts an adverse impact on the overall health status of the host community. As the food production is lost, it creates food scarcity leading to malnutrition and poor health condition to the local inhabitants.

Loss of forest cover, wild life and biodiversity: New open land is required to provide resettlement (food and habitat) to the environmental refugees and to achieve this forests are destroyed consequently wild life and biodiversity is lost.

Unemployment: Most of the displaced people, especially tribal villagers, are derived from forests and lost their traditional survival strategy such as honey collection, fire wood collection, fishery, hunting *etc.*, forever and suddenly coming to a new place find themselves just good for nothing. They had to depend solely on the local government's irregular subsidy (if it is available at all) until and unless they could somehow manage to get an alternative job.

Loss of indigenous culture: Homeless tribal people have their own specific age-old indigenous culture. Campsite, the primary shelter of all homeless people coming from different cultural places, provides an opportunity to grow a mixed culture and thereby original traditional cultures are diminished.

Socio-political and religious conflict: Sudden redundant appearance of environmental refugees could lead to socio-political as well as religious conflict. People of different cultures, societies and religions are accumulating to a new place in search of a better life. This could make life of the original inhabitants even worse than the new comers. This makes the host community indirectly rebellious and provokes them to declare protest against the presence of most superfluous guest community. Many times the environmental refugees also declare strong protest against the government for a better as well as permanent resettlement and consequently this could become a key political issue.

Development of slums: Vicinity of most of the cities and urban settlements of India along with many other developing countries are captured by slum dwellers. A majority of them are environmental refugees. They not only live a very stressful life

but also create problems like water pollution, air pollution, spreading of infectious diseases, conduction of unsocial activities *etc.*

Loss of aesthetic beauty: Sometimes the scenic beauty of any area is lost due to the unwanted presence of environmental refugees in the green and open urban recreation space.

Mitigative measures: The number of individuals who have been deracinated as environmental refugees due to different causes has amplified radically in the last few years and if this trend continues at its current rate very soon the world will face a bunch critical problems. Hence we must have to adopt some mitigative steps immediately to overcome these problems. To begin with, we have to spread out our view specifically towards the environmental refugees. We cannot just keep on paying no attention to them merely due to the absence of any institutionalised approach to deal with environmental refugees. Conduction of EIA (Environmental Impact Assessment) should be made mandatory before giving clearance to any developmental project like construction of large dams, mining, power plants *etc.* Before designing and implementing of each developmental project interests of the affected people always must be taken into prior consideration. Proper disaster management plan and establishment of disaster management cell is a must for every nation to combat against any natural calamities. Conduction of awareness campaign and regular health check up *etc.*, should always be available for the displaced people. Stringent law is needed for providing permanent settlement and financial compensation to the displaced people. Proper education, training and necessary guidance should be provided to the displaced people to find an alternative and suitable job. Every country should adopt green technology and low carbon economy to minimise the overall carbon footprint of earth. Restricted use of chemical fertiliser, insecticide, herbicide, pesticide, fungicide, nonrenewable energy resources *etc.*, and more use of biofertiliser, biopesticide, renewable energy resources *etc.*, should be adopted as an integral part of developmental policy by every nation. Each and every person should try to live an ecofriendly and less energy intensive life by changing their consumption pattern to fight against the adverse impact of global warming and climate change. There must be an integrated waste management system available in every country to lowering down the pollution load of the entire ecosystem. Some other steps can mitigate the problem of environmental refugees indirectly and in long run basis. Deforestation and illegal poaching of wild animals should

be stopped by any means whereas afforestation, reforestation and biodiversity conservation should be encouraged by the governments. Overuse and misuse of natural resources should be stopped and sustainable use of natural resources should be encouraged. Poverty eradication and declare war against illiteracy could also help to mitigate this problem.

Conclusion

Nonetheless, the rising number of 'environmental refugees' has made this a key concern which will be very difficult to overlook in near future. Subcontinental countries like Bangladesh, India, Pakistan *etc.*, are facing this problem since last seventy years or even more than that. India, surrounded by many countries, is relentlessly affected by this challenge for a long time⁷ and can make a significant contribution to unravel this matter as a trend setter of this region. As this issue is spreading throughout the world it is not possible to deal with it for a single country. Integrated humanistic and positive approach, taking into consideration the equal rights as well as the interests of all nations irrespective of age, group, gender, religion, culture and society, is the need of the hour to resolve this issue.

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