

RELATIONSHIP BETWEEN IMMIGRATION AND ENVIRONMENTAL DEGRADATION

Author: Dr. Samiksha Godara

(Assistant Professor)

Central University of Haryana

Email address: Samikshagodara@cuh.ac.in

Co-author: Sakshi

(Research Scholar)

Central University of Haryana

Email address: Sakshiaggarwal005@gmail.com

ABSTRACT

The movement of people as a result of changes in the environment is not a new phenomenon. For centuries people have often moved seasonally in response to changes in their environment. Such movement for nomadic people and pastoralists is part of their livelihood. However, it is only in the last 20 years that the international community has gradually begun to recognize the wider relationship and impact that a changing climate and environment has on human mobility. The objective of this paper is to analyse the effect of immigration and inter-state migration on environmental degradation. The second is to understand how internal disparity is connected with the development of inter-state migrants in India. This study is based on census data from 2001 to 2020. Apart from fertility and mortality, immigration is one of the major components of population growth. The inter-state migration is because of pull factors in other developed states like employment, education, business, tourism etc. India attracts immigrants from Bangladesh, Nepal, Afghanistan and other neighbouring countries. This paper is an attempt to examine the impact of immigration on environmental degradation in India due to increasing number of migrants since 2001. The present study is completely based on secondary data such as the census of India and various government reports. The results show an increasing trend of migrants during the last twenty years (2001-2020). Students and employment applicants are leading among migrants, thus the pressure on infrastructural facilities such as education and economic sectors is increasing day by day and it affects the quality of India's environment. An in-depth analysis is necessary to examine the impact of immigration on the environment and its climate in India.

Keywords: Migration, Environment degradation, National Policy.

Introduction

According to the Census 2011, India is residence to 5 million immigrants.¹ But, according to the report of the United Nations, in 2019 out of total international migrants, one third has originated only from ten countries. With 17.5 million persons living abroad in 2019, India was the leading country for origin of international migrants. The second-largest country of origin was Mexico (11.8 million), followed by China (10.7 million). However, a sharp decline in numbers of immigrants in India between 1990 till 2019 was 2.1 million. While the numbers of refugees have accelerated approximately 3000, they constitute a growing proportion of the total immigrant population in India approx 2.8% in 1990 to 3.8% in 2015.² Similar inferences come from the United Nations High Commission for Refugees (UNHCR) that till 2020 the number of refugees and asylum seekers has increased by 210,200.³ There are numerous examples for the movement of people induced by environmental changes. However, there is no substantial evidence to establish the quantum of human movement that is specifically caused by climatic changes. People have migrated to the region for various reasons including employment opportunities, trade and commerce, marriages, natural calamities etc. Migration and prosperity is the inter-linked area of interest. There has been a lot argued on the negative effects of immigration on a growth and development of a nation. One group of the researcher is argued that underdevelopment is the main cause of migration, and at the same time another group said prosperity also dictates migration. The history of immigration is the history of people's struggle to sustain and survive in society. They have protected themselves from uncertainty and poverty, and move in response to opportunity. It is a congenial event but what is not advantageous. It is the afflicted migrants found in the developing countries, resulting in crowding of cities and an increase in slums. There is a scarcity of data on immigration. The census of India is the primary source of data. It has taken a decade to get an opportunity to learn about the overall migration scenario by studying census data.

¹Office of the Registrar General & Census Commissioner, India, <https://censusindia.gov.in/2011census/migration.html>, (Last visited Feb.10, 2022)

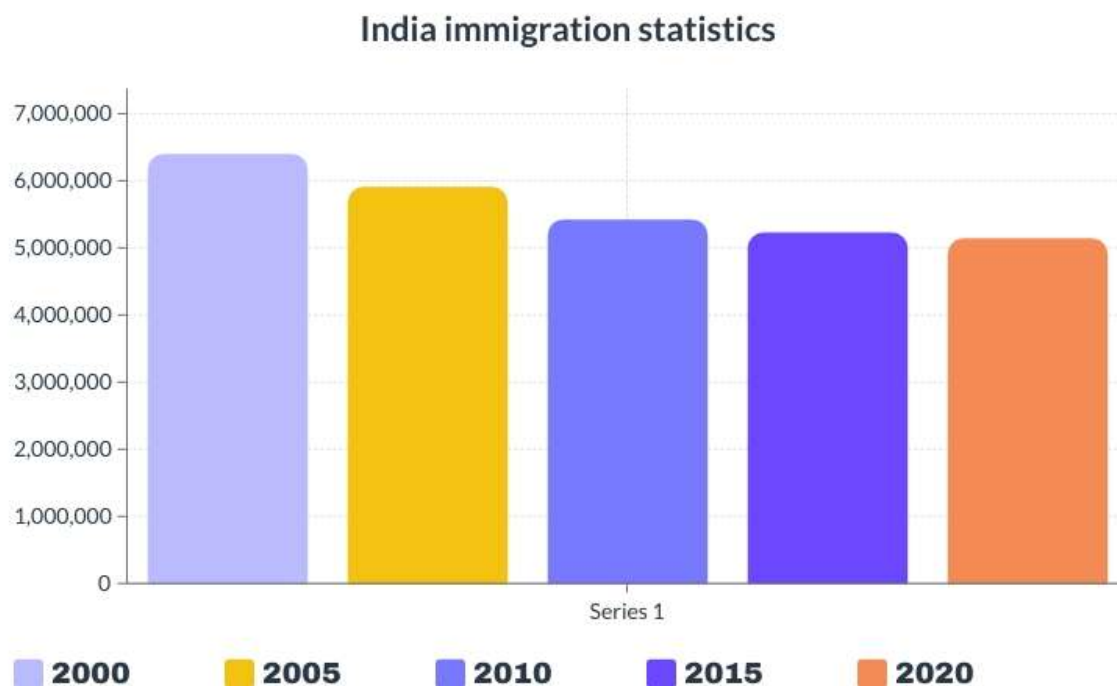
²Priyansha singh, Rohini mitra, Millions Of Indians Seek Better Lives Abroad, But India Treats Immigrants Poorly, New Study Shows, INDIASPEND,(Jan.8, 2021, 6:00 AM) <https://www.indiaspend.com/governance/millions-of-indians-seek-better-lives-abroad-but-india-treats-immigrants-poorly-study-711347#:~:text=Data%20from%202019%20from%20the,to%205.1%20million%20in%202019>. (Last visited Feb.10,2022)

³United Nations, Department of Economic and Social Affairs, International Migration 2019: Report, , https://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/InternationalMigration2019_Report.pdf

Population size and growth rates have a huge impact on all aspects of Indian life, socially, economically and environmentally. The effects of population dynamics are usually the most influential fundamental factors that national policy development has to deal with. Immigration and sustainability are inevitably linked. The biophysical realities of climate change and the challenge of transitioning to renewable energy will end the dream of endless growth. But the sooner we start focusing on building a sustainable society, the easier it will be to achieve goals. Instead of moving forward on our terms need to focus on nature. People must weigh the relationship between immigration and the environment and respect our boundaries. Of course, India has the citizenship (Amendment) Act 2019 and the National population register to consider the impact of mass immigration on our national policies. Assam is extremely vulnerable to climate change due to both, its geographic proximity to the delta region and poor socio-economic conditions. This vulnerability is reflected in the exposure, sensitivity and adaptive capacity of the local population. The state is characterised by high rainfall and a subtropical climate. According to the State Action Plan for Climate Change, the annual mean temperature in the state has increased by 0.59 degrees Celsius over the last 60 years and is likely to increase by 2.0 degrees Celsius by 2050. Climate projections in the state action plan also predict that extreme rainfall events will increase by 38%.⁴

In India, citizens need to have forward-looking national policies instead of taking the effects of population size and growth rates into account. Immigration and sustainability should not be treated as two unrelated disciplines. Poverty and prosperity are two major disciplines responsible for motivating migration. While the first one is true in the context of developing countries, the second one is found in developed countries. Migration is the pointer of changing socio-economic and political conditions at the national and international levels. Historically human beings have never weighed immigration and its impact on the environment.

⁴Department of Environment and Forest, Government of Assam, India, Assam State Action Plan on Climate Change (2015 - 2020), Report, <http://moef.gov.in/wp-content/uploads/2017/08/ASSAM-SAPCC.pdf>



Source of data macro trends⁵

International Overview: Environmental Concern and Immigration

Within developing countries, population movements are considered more important than natural increases in the population. Therefore, the relationship between immigration and the environment, especially in the context of global climate change, has emerged a hot topic of research. Some researchers have suggested that migration contributes to several environmental problems, for example to solid waste treatment, transportation, energy consumption, air and water pollution, and food consumption at local levels because of continuous increases in the population size and density. Other researchers have suggested that despite all of the negative environmental impacts of migration, increased concentration of the population within urban areas can lead to improvements in the economy of scale relating to public services, infrastructure, energy consumption, and environmental management that result in a reduction in the overall pressure exerted on the environment and on natural resources.⁶ Historically, there has been a heated and lengthy debate on the

⁵India Immigration Statistics 1960-2022, MACROTRENDS, <https://www.macrotrends.net/countries/IND/india/immigration-statistics#:~:text=India%20immigration%20statistics%20for%202015,a%207.61%25%20decline%20from%202000,> (Last visited Feb.13,2022)

⁶Wang Guoxia, Shi Xiaowei, Cui Haiyan, Jiao Jing, 2020. Impact of Migration on Urban Environmental Pollutant Emissions in China: A Comparative Perspective. Chinese Geographical Science, 30(1): 45–58. <https://doi.org/10.1007/s11769-020-1096-1>, <https://link.springer.com/content/pdf/10.1007/s11769-020-1096-1.pdf>,

relationship between populations and the environment. Malthusians and neo-Malthusians⁷ argue that there is a simple negative relationship between population growth and the natural environment, whereas other scholars contend that an increase in population does not necessarily lead to environmental degradation and resource scarcities. Nevertheless, there is widespread consensus that the relationship between population and environment is complicated.⁸

Despite the lack of accurate data, there is no doubt that some parts of the earth are becoming less habitable due to factors such as climate change, agricultural land degradation, desertification, and water pollution. Natural disasters have nearly doubled over the past two to three decades, according to 2009 data of OCHA-IDMC, and in 2008 more than 18 million people were displaced by climate-related natural disaster. Large scale temperatures are expected to go up between 2 and 5 degrees centigrade by the end of this century. There can be a large impact on the movement of people. That's why policymakers are asking the research community and other experts to guide them on several important questions.⁹ If we discussed it on an international platform then will see only a few studies examining the environmental consequences of immigration. US-based research has blamed Immigration for environmental degradation to some extent. This US-based study focused entirely on air pollution. It tested the effect of the immigrant population in California and other US countries on air quality as measured by ROG, NO_x, SO_x, CO, and PM₁₀. Despite the differences in air quality and samples tested, the findings of these studies are similar. The immigrant population was not associated with most air pollutants. Larger immigrant populations were associated with lower levels. Therefore, as compared to U.S citizens, the immigrant population may be less harmful to the environment. A limitation of prior studies is the lack of consideration of spatial autocorrelation. Compared to U.S citizens, Latino and Asian immigrants were less likely to have personal cars and good housing conditions. Hispanics and Asians used 5 percent less energy and produced less carbon dioxide pollution than Whites and Blacks in California. Mexican immigrants were less likely to drive and use less household energy than other Latinos and U.S citizens.

⁷ Malthusian and Neo-Malthusian Theories, https://ranabr.people.stanford.edu/sites/g/files/sbiybj5391/f/malthusian_and_neo_malthusian1_for_webpage_040731.pdf. (Last visited Feb.13,2022)

⁸ World population trends, United Nations Population Fund,(UNPF), <https://www.unfpa.org/world-population-trends#readmore-expand> (Last visited Feb.14,2022)

⁹Migration, Environment and Climate Change: ASSESSING THE EVIDENCE, International Organization for Migration(IOM), https://publications.iom.int/system/files/pdf/migration_and_environment.pdf,

Chinese culture emphasizes a harmonious relationship between man and nature, encouraging environmental friendly behaviour.¹⁰

To determine whether immigration significantly affected the environment, Chinese researchers examined the urban environmental pollutant emissions and evidence of net migration among migrant populations at the prefectural level using data obtained for 90 Chinese cities. Estimating population structure by dividing the permanent population of these cities into native residents and migrants, they produced an improved Stochastic Impacts by Regression on Population, Affluence and Technology model (STIRPAT) in which the environmental pollutant emissions variables of the city's characteristics were involved. The main findings of their study were as follows: "1) Migrant population has significant impacts on environmental emissions both in terms of their size and concentration. Specifically, migrant populations have negative impacts on the Air Quality Index (AQI) as well as PM2.5 emissions and positive impacts on emissions of NO2 and CO2. 2) The effects of immigrant population on urban environmental pollutant emissions were 8 to 20 times weaker than that of local populations. 3) Urban environmental pollutant emissions differ significantly, according to variations in the industrial structures, public transportation facilities, and population densities in different cities".¹¹

Immigration is a major factor of international aviation growth and countries which have sent the larger immigrant population to the UK in recent years. It have been seen the fastest growth in passenger journeys to and from the UK. GHG emissions from aviation are proposed to grow strongly over the time. England is one of the most populated countries in Europe. Increasing population pressures will disproportionately impact England where the population is projected to increase by 18 per cent, with densities projected to be 465 persons per square kilometre by 2033. In the South East of England by 2033, population densities are projected to increase by 20 per cent. Such a loss of countryside would inevitably cause loss of wildlife habitats, damage the UK's biodiversity and have a detrimental impact on the 'amenity' that people gain from the rural environment and contact with nature.¹²

¹⁰Ma, Guizhen, "The Environmental Impact of Immigration in the United States"(2020), All Graduate Theses and Dissertations, 7782. <https://digitalcommons.usu.edu/etd/7782>,

¹¹Hu, Yc., Zhou, W. & Yuan, T. Environmental impact assessment of ecological migration in China: a survey of immigrant resettlement regions. *J. Zhejiang Univ. Sci. A* 19, 240–254 (2018). <https://doi.org/10.1631/jzus.A1600669>, (Last visited Feb 14 2022)

¹² Environmental impact of immigration, MIGRATION WATCHUK THE VOICE OF 30 MILLION, https://www.migrationwatchuk.org/pdfs/BP13_2.pdf

There has been a tremendous tendency to focus on the negative consequences of immigration to the environment, with fewer studies showing how immigration can be a coping or adaptation strategy or how immigration can relieve pressure on environmentally poor areas. The World Bank in its 2010 Climate Change and Development report warned that there are risks to the policy challenges associated to environmental migration as negative terms. However, the report, “Groundswell-Preparing for Internal Climate Migration”, is the first comprehensive study of its kind to focus on the relationship between climate change impacts, internal migration patterns and, development, specifically in three regions of the world: Sub-Saharan Africa, South Asia, and Latin America.

World Bank Chief Executive Officer Kristalina Georgieva said that the new research provides an awakening call for all nations. The report recommends key actions at national and global levels, including:

- Reductions in global greenhouse gas emissions to reduce climate pressure on people and livelihoods, and reduce the overall scale of climate migration
- Changing development planning to factor in the entire cycle of climate migration (before, during and after migration)
- To improve understanding of internal climate migration trends need to invest in data and analysis at the country level.¹³

The World Bank Group, a new report (Groundswell Part II) includes new projections and analyses for three regions, East Asia and the Pacific, North Africa, and Eastern Europe and Central Asia. It based on the first Groundswell report from 2018, covering Sub-Saharan Africa, South Asia and Latin America. Overall, projections for all the regions out to 2050 suggest that: Sub-Saharan Africa may see 86 million internal climate migrants; East Asia and the Pacific, 49 million; South Asia, 40 million; North Africa, 19 million; Latin America, 17 million; and Eastern Europe and Central Asia, 5 million. The poorest and most climate sensitive regions will be disproportionately affected.¹⁴

National Overview: Relationship between the Immigration and the Environment

Immigration at current levels will deliver continued environmental and social decline, which is not good for anyone in the long term. Population growth is simply incompatible

¹³ Climate Change Could Force Over 140 Million to Migrate Within Countries by 2050: World Bank Report, Published on Mar. 19, 2018, <https://www.worldbank.org/en/news/press-release/2018/03/19/climate-change-could-force-over-140-million-to-migrate-within-countries-by-2050-world-bank-report>,

¹⁴ Groundswell Acting on Internal Climate Migration PART II, 1 International Bank for Reconstruction and Development, The World Bank, 2021, <file:///C:/Users/cp/Downloads/Groundswell%20Part%20II.pdf>

with the need to create either a sustainable or an egalitarian society. People need to stem the negative effects of immigration in India and adopt well-researched and coherent policies.

Immigration is not a new experience for Assam, but what is new is its enormous nature since the beginning of the 20th century. The extent of migration in Assam and its impact on population growth and socio-economic status has been a matter of controversy, especially in the last two three decades. Some researchers have shown that migration has little or no impact on pollution levels in terms of air quality, as immigrants generally have smaller equipments so producing less pollution. Their findings indicated that population growth resulting from migration does not evidence the same pollution effects as domestic migration and natural population growth.¹⁵

Several studies have well founded both at national and international level that India would be the most adversely affected country of eastern part of Asia to climate change. It can give rise to two types of population movement i.e. displaced people or migrants of the country. Firstly, the migration to India increases due to adverse effects of climate change such as rising sea level, drought, water scarcity, desertification, and low food productivity as a result of melting glaciers. Second, an increase in the flow of migrants from neighboring countries due to the accelerated effects of climate change. India is home to over 700 million vulnerable people. The majority of these people live on ecological fragile land and due to lack of institutional and financial capacity they are unable to protect against natural as well as market based climate change. Among them various people belong to tribal communities across the country. All of them are forced to bear day-to-day burdens of water scarcity, food insecurity, disease, sea level rise and other environmental problems. There is strong evidence that temporary population migration to rural areas of the country has become a regular source of livelihood strategies.¹⁶ Good planning can help ensure that both sending and receiving areas are well equipped to meet the needs and aspirations of their populations. Investments are needed to help working-age populations find opportunities in climate resilient labor markets, along with good health care, education, and public services. Investment in human capital can increase communities'

¹⁶ Kshirod Chandra Sunani , Environmental change and migration: Policy Analysis in India, International Journal of Legal Developments and Allied Issues (IJLDAI) 15, <https://fdocuments.in/document/environmental-change-and-migration-policy-analysis-well-as-market-based-climate.html> (Last visited Feb 15, 2022)

ability to cope with climate change impacts, particularly by empowering women and youth, who are often the first to face high unemployment rates.

Conclusion

Environmental degradation occurs due to scarcity of resources. It can result from the excessive use of a non-renewable resource or from the use of harmful elements in the ecosystem. Both can reach the state of destruction in the environment of a nation. According to the researcher, immigrants have affected the environment less in the terms of air quality, but more in other context such as flood, overpopulation, migration of rare species of animals. From country's point of view, they have affected not only the local resources but also the waste management system of the country. When someone enters a country by any means, legal or illegal, there is huge possibility of violating the laws of that country. Therefore, we can see its major impact on environment. According to report of the State Action Plan for Climate Change, the annual temperature in the state of Assam has increased by 0.59 degrees Celsius over the last 60 years, and is likely to increase by 2.0 degree Celsius by 2050. When the population density in a particular place becomes high, the balance of the natural ecosystem of that area starts deteriorating as we can see in some states of India. Biodiversity will continue to decline in that part of the country, disasters and floods increase year to year. In India, there is a special tribunal for protection of environmental degradation known as National Green Tribunal. It has ordered environmental regulatory authorities to comprehensively implement and take into account the Comprehensive Environmental Pollution Index (CEPI). CEPI distributes weight to various pollutants, ambient pollutant concentration, receptors and additional high-risk elements. A person who fails to comply with an order or award or decision of the NGT Tribunal is punishable with imprisonment for a term up to three years, or with a fine up to INR10 crore, or both. But, we have to restrict the other factors also which are not directly affecting the environment but indirectly plays a vital role in environmental degradation. We know that India is a member country of United Nation and progressing towards achieving the Sustainable goals in the area of water, poverty, health, and infrastructure. According to NITI Aayog Report, India has improved its score from 6 points in 2020-2021.