

Yesterday, today, tomorrow; environmental refugees

Ibrahim Yenigun¹, Vildan Balci^{2*}, Abdullah Yenigun³, Sinan Uyanik⁴

¹ Department of Architecture, Harran University, Turkey

^{2*,3} Environmental Engineering Department, Harran University, Turkey

⁴ Department of Environmental Engineering, Bursa Technical University, Turkey

*Corresponding author E-mail: vildanbalci90@gmail.com

Received: Jul. 15, 2023

Revised: Aug. 5, 2023

Accepted: Aug. 8, 2023

Online: Aug. 12, 2023

Abstract

Migrations, which are as old as the history of mankind, have taken place for many reasons and have increased with the addition of new ones. Although wars and economic concerns are among the main causes, environmental problems have been one of the reasons that should be accepted in today's world. Environmental problems that threaten the lives of all living beings, especially human beings, pose numerous risks. Moreover, these risks have reached unlimited and global dimensions. One of these risks is the forced migration of people due to various environmental problems, especially climate change. Those who have experienced this migration are defined as "environmental refugees", and they occupy an important place in recent literature. While many of the problems associated with the millions of migrants are still unresolved today, the fact that environmental refugees are being added with increasing momentum clearly demonstrates the importance of including this issue in research agendas. It is also a fact that migration poses serious problems not only for the migrants who are its subjects but also for the countries of emigration. The importance of the subject from both sides and the fact that it is pregnant with many problems, which can be seen with the domino effect, made it necessary to study the subject in detail. Based on these considerations, in the study; the history of environmental refugees, its causes, problems, environmental refugees mobility in recent years, possible future scenarios, and social-economic dimensions are discussed, as well as evaluation and solutions are given.

© The Author 2023.
Published by ARDA.

Keywords: Environment; refugee; migration; risk

1. Introduction

Migration is a phenomenon that has caused almost every society to leave the regions in which they live, either voluntarily or compulsorily, for various reasons, since the existence of mankind. Although wars, internal conflicts and economic concerns are among the most important possible causes of migration today, "environmental problems", which have increased in recent years, have taken their place among the most important triggering factors that influence the course of migration and make life difficult [1,2]. The negative

consequences of climate change, which is one of the most important environmental problems that transcends borders and whose main determinant is "human", has increased the migratory events of recent centuries by influencing the emergence of many new problems. Societies that are particularly affected by this problem are underdeveloped or developing countries, where economic concerns are growing and risks such as drought, unproductive agricultural land and natural disasters are common. In this context, possible risks in disadvantaged countries, where environmental problems are rapidly accelerating, have forced people to migrate in search of a safer life [3]. In this context, societies that are forced to relocate due to environmental problems of global proportions are referred to in recent literature as "environmental refugees". Unfortunately, there is no international legal agreement that recognizes the rights of these people whose natural livelihoods are threatened with extinction and whose only option is to migrate. For the future of the countries on the same ship, it is becoming increasingly important to evaluate and resolve the issue of environmental refugees, which is the focus of conceptual discussions, in all its economic, social and human aspects. Because the risks of immigration, which is seen as a last resort, not only cause problems for the immigrants, but also bring problems in many areas such as economic, social, political, educational, health and security to the countries of immigration. In this context, in the study; The history of environmental refugee, its causes, the problems it brings, the mobility experienced in environmental refugees in recent years, possible scenarios that may arise from environmental refugees in the future are discussed, and it aims to draw attention to the importance of the issue by referring to evaluation and solution proposals.

1.1. Environmental refugee history

Environmental problems, which have been increasing in recent years and have gradually turned into a global crisis, have deeply affected the way of life of societies, causing irreparable consequences and bringing the concept of "environmental refugees" on the agenda. Although it is included in the literature as a term that has recently gained popularity, it is actually a phenomenon that has been expressed since the beginning of the 1980s [4,5]. This concept, first expressed by Lester Brown in 1976, was later put on the international agenda by El Hinnawi in the 1985 report of the United Nations Environment Program (UNEP) [6]. The predictions and results expressed in various reports prepared in different national and international platforms over time have been effective in increasing the interest in the concept of environmental refugees. However, despite the increase in the quality and quantity of studies carried out, the point reached is not considered sufficient to solve a series of problems caused by environmental refugees and expected to reach global dimensions. The fact that there is not yet a common agreement on this concept, which is expressed in particular as environmental refugees, has played an active role in increasing the problems. The basis of the reasons leading to this situation is the definition of a refugee in the Geneva Convention signed in 1951. The conceptual debates on the inclusiveness of the terms used in the Convention's definition of refugees lead to environmental refugees being ignored in terms of legal status. According to the definition in question, "a person who, owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his or her nationality and is unable or unwilling to avail himself or herself of the protection of that country, or has no nationality, and, as a result of such events, is outside the country of his or her former residence and is unable or unwilling to return to it owing to such fear." [7]. As can be seen from the definition, there is no concept that can describe people who are stateless due to difficult ecological conditions such as "environment, climate, nature". This situation results in "environmental refugees" not being able to benefit from their refugee rights, but also causes conceptual crises in international courts [8]. Environmental risks caused by climate change, whose slow but dramatic effects are still being debated, continue to force societies to migrate over time. It is expected that climate change, which is considered one of the most important crisis issues of the last century and is on the main agenda of the debates being conducted in all fields with populist discourses, will further aggravate the problems in many economic, social and environmental dimensions. In this context, the fact that the damage to the environment caused by the human factor is becoming more and more visible every day, compared to the past, makes the situation very difficult. The fact that the fear and worrying consequences that have taken place at the

ecological level have accelerated since the first day of environmental degradation clearly reveals the importance of the issue [5]. In this context, disadvantaged societies such as Africa, which have been the focus of mass migration from the past to the present due to environmental problems and difficult living conditions, are just one example of this situation [9]. The existence of environmental refugees in the past, and the fact that it is one of the main reasons for human mobility, makes it necessary to revisit the issue. Ignorance of this situation by national and international authorities hinders efforts to raise awareness of future mass migrations.

1.2. Reasons for environmental refugee

It is predicted that "environmental refugees", which are one of the consequences of rapidly accelerating environmental problems and are expected to reach global dimensions, may become a large-scale problem that will concern the whole world in the near future. As it will bring a series of problems, it is becoming increasingly important to identify the causes of environmental refugees and take possible measures. However, although it is not easy to draw a clear framework for the causes in the place of humanity, which varies in this direction, basically two reasons can be mentioned, which are important triggering factors. The first is temporary or permanent migration due to natural disasters such as landslides, earthquakes, tsunamis, avalanches, and volcanic eruptions. The second is migration due to slow but long-lasting destruction caused by the "human factor" and the inability to meet even the minimum basic needs that can sustain living conditions due to ecological degradation [6]. Macro- and micro-level risks related to climate change, which have a global impact and are mostly due to anthropogenic causes, are among the most important reasons for increasing the number of environmental refugees [9]. In today's world, where the consequences of this situation are strongly felt, insecurity in the areas of water, food, health and shelter, which are among the basic needs of life, triggers the phenomenon of migration and drags humanity into existential depression [10]. In this context, as expressed in Figure 1.2.1 below, it is inevitable for humanity, which is struggling to survive by nature, to leave its place as a way out. For example, famines caused by drought in societies living in Africa, South America and the Pacific; agricultural land rendered unproductive by the threat of extinction of island nations due to rising sea levels; floods caused by heavy rains; conflicts arising from fear of resource depletion; insecurity; etc. Due to their exposure to risks in different dynamics, forced migrations are experienced. In this context, ecological injustice, which particularly affects disadvantaged countries, forces millions of people to migrate every year due to environmental factors [4,11].

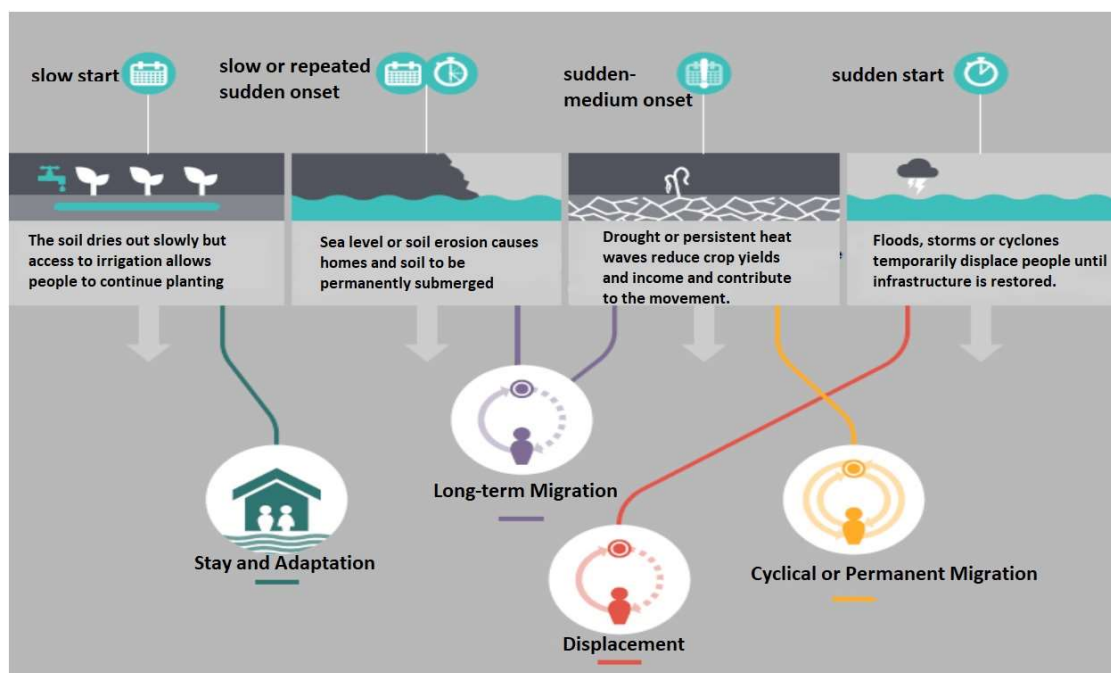


Figure 1.2.1. Effects and consequences of environmental events [12]

Assessing the phenomenon of environmental migration together with the push factors that support various migrations, such as economic insufficiencies, social problems, restrictions on access to basic needs, will allow inferences to be made about the causes of environmental refugees with more robust data. For example, the melting of glaciers due to global warming, which is one of the results of climate change, causes sea levels to rise. This situation can lead to many vital problems, especially in island countries, by causing loss of habitable land, increasing the salinity of the soil and making it unproductive, and causing lack of access to healthy drinking water. This problem, which causes a lack of resources, increases social, social and economic conflicts in island countries and paves the way for an increase in migration rates. As can be seen from the effects mentioned here, it is very difficult to determine the first reason that supports migration. However, it can be seen that the most important factor based on all the problems is environmental degradation, and all the causes support each other. In this context, if we look at the regions where migration due to environmental reasons is experienced, it is predicted that it will affect the poor, underdeveloped or developing countries more than the developed countries [13]. Because in recent years there have been persecutions, internal conflicts, economic problems of access to food, unproductive agricultural lands, violence, and so on. If we look at the societies that have had to leave their countries because of these events, it is clear that there are justified predictions. According to the 2021 data of the Global Trends Report published by the United Nations High Commissioner for Refugees (UNHCR), the countries that give the most refugees are Syria, Venezuela, Afghanistan, South Sudan and Myanmar. 6.8 million people were displaced from Syria, 4.6 million from Venezuela, 2.7 million from Afghanistan, 2.4 million from South Sudan and 1.2 million from Myanmar. Given the location of these countries, it is possible to evaluate them as the countries where the consequences of environmental degradation are experienced the most. In this context, social and economic problems such as famine, poverty, internal conflicts, violence and persecution in the country become an effective driving factor in the forced displacement of people. For the majority of migrants in the region, the only option is to migrate to neighboring countries where they can meet their basic needs for work, education, health and food. According to the aforementioned report, the countries hosting these refugees are Turkey (3.8 million), Uganda (1.5 million), Pakistan (1.5 million) and Germany (1.3 million) [14]. It is seen that most of these countries that receive refugees are underdeveloped or developing countries that experience a lack of resources. The flow of immigrants to these regions increases the displacement within the country by causing various problems such as infrastructure, health, education, food and job opportunities. Although it is difficult to enumerate the reasons for the new problems that arise with the snowball effect, the decrease or disappearance of natural resources, which make it difficult to access daily needs, are among the main reasons for environmental refugees. If the developed countries, which continue to implement their competitive ideologies for the sake of modernization at the expense of the destruction of natural resources, continue their actions, it is expected that massive migrations will occur as never before. In this context, it is very important that ethical principles replace the purely consumption-oriented understanding of the developed countries, which play a major role in the causes of environmental refugees. Before possible environmental problems reach more terrible dimensions, it is essential to ensure the sustainability of radical decisions at the international level and to implement them.

1.3. Problems brought by environmental refugee

The degradation of the environment, which is worrying the world day by day and is reaching dimensions that threaten the livelihoods of societies, creates a driving force and causes migration. With these new migrations, it is inevitable that the demographic imbalances in the distribution of the world's population will cause many problems. The possible consequences of climate change, such as the loss of agricultural land in recent years, the rise in sea levels due to melting glaciers, floods, earthquakes and droughts that affect daily life, expose the world to the flow of refugees. Environmental refugees, whose numbers are increasing every year and are expected to reach global proportions, cause various social, economic and security problems. If we mention the main problems of the social dimension, it can be said that the cultural ties between the peoples of the region

who had to migrate and their own countries are weakened or even broken [13]. This situation, on the other hand, triggers the problem of adaptation experienced as a result of the coming together of societies with different cultures, histories and habits, and may lead to various humanitarian risks, either directly or indirectly, both for the immigrant refugees and for the countries exposed to immigration. These social vulnerabilities, in turn, create political, security and economic problems [15,16]. This situation can lead to more problems, especially in resource-poor island countries. For example, Lake Chad, which is located between the countries of Cameroon, Nigeria and Chad, has a very important place for the countries of the region. This situation, with its environmental and economic aspects, poses several challenges. One of these difficulties is the immigration from different places to the countries of the region due to the drought problem that causes humanitarian crises. It is inevitable that various risks and problems will rapidly worsen due to the increasing migrations in addition to the current resource scarcity in the region [17]. As mentioned in the example, the migration of countries that are disadvantaged in the distribution of resources can cause economic problems due to food shortages, internal conflicts, socio-cultural reasons, and hinder development goals in the long run [13]. Today, with the rapid impacts of climate change, these and similar examples can be multiplied.

The migration problem experienced as a result of ecological injustice can also cause people living in migratory areas to turn to cities. Unplanned population growth in cities will cause many problems such as food, health, lack of housing, pollution, infrastructure, education, lack of public services, security problems. The impact of this situation will be particularly felt in densely populated coastal cities that are likely to be flooded due to sea level rise. In fact, one of the most important reasons for the avalanche of these problems, as mentioned above, is that the crises experienced by people who have had to leave their historical and cultural habitats because of environmental problems have not had a legal basis. In this context, in the event of a sudden possible wave of migration, the lack of an international legal agreement makes it difficult for underdeveloped or developing countries to protect the values of the current status quo and creates various problems. Because refugees, who are not under legal protection, cause an increase in events such as terrorism, crime, theft in the sheltered states, causing development, tourism, economy, employment, etc. It will cause negativities that will hinder the growth of countries in these areas. As can be seen, the problems caused by environmental refugees who have no legal status in different areas are very closely related to the sustainable development goals of countries. In this framework, the steps to be taken and the measures to be taken depending on the international consensus are very important for the correct intervention [15,16]. Especially in recent years, many problems have not been fully resolved against the flow of refugees whose effects have been seen concretely due to reasons such as wars and internal conflicts, while the increase in the number of refugees in the environment causes the problems to grow even more. In this context, it is very important to solve the current or future crises instead of covering them up in order to use the limited resources in the world properly [18].

1.4. Environmental refugee mobility in recent years

Environmental refugee mobility, which is one of the controversial issues of international law, has always maintained its existence as a dynamic process depending on the change and transformation of nature throughout history. The term "environmental refugee mobility" can be used as a concept to study the negative consequences of environmental impacts with its human dimension [13]. Especially in today's world, it is predicted that mass environmental refugee mobility will increase due to increasing climate change as a result of anthropogenic environmental degradation. [4]. In this regard, it is inevitable for people who are struggling to survive and seeking a more comfortable life by nature to carry out migration within and outside the country [2]. In particular, the increase in the number of natural disasters is closely related to the environmental refugee movement with short and long-term migrations. It has been observed that the number of natural disasters, which are the cyclical consequences of environmental events on a global scale, has approximately doubled in the last 20 years. Due to the negative consequences of nature exposed to human domination and exploitation, which is responsible for this ecologically bad course, it was stated in the records that there were 21.8 million

human mobility between 2008 and 2016, according to the estimates due to extreme weather events in the United Nations report. In 2017, it was stated that 3.2 million people experienced internal migration in the first nine months of the year due to drought and natural disasters [19]. In South Africa, one of the regions most affected by climate change, extreme drought due to insufficient rainfall is forcing people in the region to starve or migrate. In early 2021, the United Nations High Commissioner for Refugees (UNHCR) reported that 1 million Somalis were displaced due to the region's worsening drought, and more than 7 million people were at risk of starvation due to the drought [20]. Another example of human mobility due to the impacts of climate change is that more than 870,000 refugees fleeing persecution in Myanmar and seeking refuge in Bangladesh have been exposed to natural disasters such as cyclones and floods, which have increased in recent years. The statement also noted that the majority of countries exposed to the risks of climate change host large numbers of refugees [21]. As can be seen from the above-mentioned reports, the consequences of environmental problems, which are among the most important agenda items of the 21st century, are most evident in underdeveloped or developing countries [22]. These risks increase the fragility of these societies, which can provide minimal access to their livelihoods and drag people into an existential crisis. In this context, it has been observed that disadvantaged societies, which are highly vulnerable and have difficulties in adapting to ecological problems, are more likely to act [13]. The yearly increase of the said environmental refugee movement paves the way for unplanned and uncontrolled migrations and greater risks on a global scale.

1.5. Possible future scenarios

As a result of the anthropogenic effects of modernization and globalization at the expense of the destruction of the planet, environmental degradation, which has accelerated in recent years, is leading the Earth to an irreversible end. It is predicted that the countries of the world that will feel its effects more intensely in the future will face mass migrations of millions of people as a result of environmental insecurity, especially from the regions where ecological injustice is experienced. As shown in the graph in Figure 1.5.1 below, according to the United Nations High Commissioner for Refugees (UNHCR) Global Trends Report, the number of people forcibly displaced due to persecution, conflict, violence, human rights violations or public order disturbances is increasing every year [23]. Examining the reports, it was announced that the number of people forcibly displaced in 2021 reached 90 million, despite the Kovid-19 epidemic that began in 2020. In 2022, as a result of the wars, the number of refugees is expected to reach 100 million.

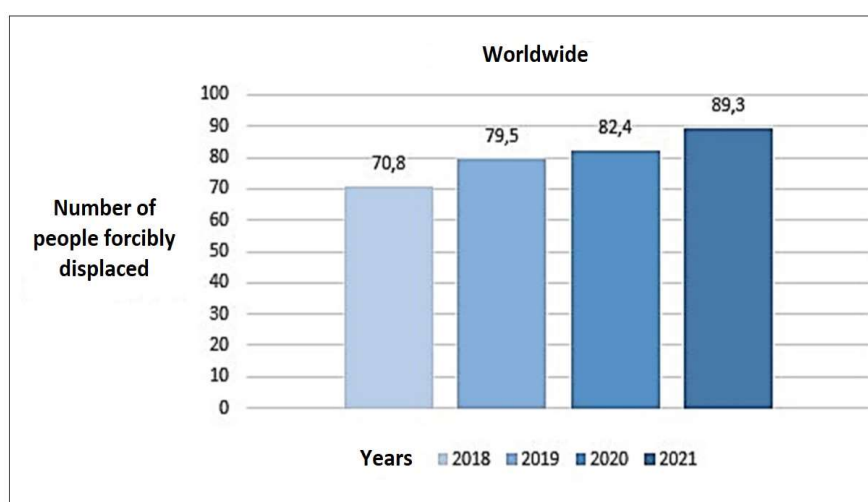


Figure 1.5.1 Numbers of forcibly displaced persons indicated in global trends reports by year (Prepared using (UNHCR) Global Trends report data.)

According to the figures given, it is predicted that these numbers will increase in the coming years due to environmental problems. It is inevitable that the number of environmental refugees will reach millions, especially in the regions where ecological injustice is felt the most. It is undoubtedly the most human right of

people struggling to survive in countries where natural events such as droughts, rising sea levels due to melting glaciers, floods and tsunamis, which are among the effects of global warming, are the most human rights. For this reason, the reduction of emissions has a very important place in minimizing these effects of global warming in today's world, where the importance of environmental sustainability against possible mass migration is increasing day by day. If it continues at this rate of increase, it is predicted that the possible future scenario will reach up to +5 0C on a global scale. Although this situation includes the possibility of a further rise in sea level of 178 cm, the greenhouse effect is expected to exceed 2 m by 2100 if the melting of glaciers is also taken into account. The increases experienced in this context show that each 1m rise means a sea level rise 100m further from the coast. If these frightening dimensions affect the world in the future, it is expected that countries close to the Pacific and Indian Oceans, which are highly threatened, will be more affected by the situation. Thus, one of the inevitable effects will be that there will be a serious movement of human population from these regions, causing the population of the country to be completely relocated [24]. There are various estimates and studies on this topic.

For example, Figure 1.5.2 presents the possible scenarios for 2050 for the regions of sub-Saharan Africa, South Asia and Latin America in terms of people displaced by climate change, which is one of the consequences of environmental degradation.



Figure 1.5.2. Possible environmental migration scenarios in 2050 [19]

Under the worst-case scenarios, an average of 143 million people from these three regions are expected to become environmental refugees. Among these countries, it is estimated that most migration will take place in sub-Saharan Africa, where the effects of drought will reach tragic proportions in the possible scenario [22]. The International Organization for Migration supports these scenarios, stating that the number of environmental refugees will reach at least 200 million by 2050 [9]. It is inevitable that the countries causing the increase in these numbers will be underdeveloped countries with high levels of poverty. In this framework,

demographic changes bring many risks in infrastructure, food, economic, social and social are among the possible effects [25].

The future scenarios presented in another report, on the other hand, state that in the next 40 years, as a result of environmental degradation, an unprecedented migratory mobility will take place, affecting about 1 billion people. These estimates support the above scenarios. This expected overpopulation once again highlights the importance of environmental sustainability [22]. In this context, one of the most important steps to be taken is to define, on an international basis, the status of environmental refugee mobility, which is seen as the only option, especially in societies that are most affected by the consequences of ecological degradation and do not have sufficient advantages. If this step is taken, it will be possible to minimize the possible problems and risks associated with the mobility of environmental refugees, which is a focus of global concern, by developing the necessary plans and strategies at the international level. The creation of living spaces for people living in island countries where the sea level is rising will not only prevent possible mass migrations, but also prevent the crisis caused by the problems that may arise [9].

2. Results

It is obvious that the migrations against various natural events throughout history have gained momentum in recent years. In particular, human intervention in nature has not even allowed the ecological cycle to renew itself, causing the process to be dragged into a global chaos. The developed countries, which play a major role in the deterioration of the atmospheric equilibrium, are almost preparing the end of human history on the planet by accepting that the problems are only regional. However, as the researches carried out in the course of time have shown, the environmental problems are felt on a global scale, but they also bring with them various problems that make human life difficult. In this context, climate change, which is the most noticeable consequence of environmental degradation today, is expected to affect the whole world in the coming decades. The most important indicator of this situation is the number of "environmental refugees", whose numbers are rapidly reaching millions, who are forced to leave their homes as a result of the increase in environmental events such as drought, desertification, flooding, rising sea levels, and the threat of extinction of drinking water resources. Due to environmental degradation, people living in existential crisis in their countries are forced to migrate in search of a healthier and more prosperous life. The fact that there is still no consensus on the legal concept of environmental refugees makes the struggle for survival of refugees who have to leave their homes even more difficult. While the problems are growing like an avalanche, the future habitable planet is being pushed to an irreversible threshold. Because the lack of legal regulation and the lack of solutions and planning for the future of the planet also affect the emergence of various socio-economic risks for people who are forced to migrate as the only way out as a result of environmental destruction. Both the lack of legal regulation and the fact that it contradicts the interests of states at the expense of nature, climate and the destruction of the planet make the solution of the problems even more difficult.

In today's world, where ecological injustice is on the rise, the fact that the number of environmental refugees has reached millions in the past and present, and that it will reach the numbers indicated in possible scenarios of future demographic changes, shows that the problem has acquired a global rather than a national character. A proactive approach to solving these problems, the cost of which will be felt especially in poor countries, before they get worse, is a point that should be considered for the existence of a livable world in the future. In this context, it is essential to raise more awareness in order to minimize the environmental degradation caused by anthropogenic effects, which are the basis of the problems and cause ecological injustice, on an international scale. Especially for the underdeveloped or developing countries that are exposed to the flow of refugees due to the current wars, it is important to take a separate measure against possible mass migrations that may occur due to environmental reasons. Because in a possible new wave of migration, it will be difficult to meet the needs of these countries in areas such as infrastructure, food, water, shelter, education and health, and it will be inevitable that other problems will come to the fore. In particular, the fact that environmental refugees are permanently migrating to more livable countries due to the lack of possibility of losing their

homeland and future life increases the importance of the issue. Another aspect of the problem is that this situation will lead to factors that will increase interstate tensions due to lack of resources as well as socio-economic problems in the future. In this context, the support of the developed countries to the countries that receive the environmental refugees will contribute to the prevention of the tensions between the countries. It is very important that they take a more active approach to solving the problem, since the main responsibility for the environmental problems that are currently occurring is the responsibility of the developed countries, which are focused on consumption and growth. However, if we look at the methods used in practice in many developed countries today, we see that most of the expenditures that need to be made to solve the problems are spent on arming the borders or building high walls. This situation is worrying for the future world and is a clear indication that there is not enough awareness of the problem.

3. Conclusions

It is clear that the mobility of environmental refugees, which has short and long term effects and is a result of ecological degradation mostly due to anthropogenic causes, brings with it a series of problems closely related to immigrants and countries exposed to immigration. In this context, according to the international research reports included in the study, it is estimated that the number of people living in disadvantaged regions, where ecological injustice is experienced, will exceed the limits in the coming decades, according to possible future scenarios, in order to achieve a more reliable life. In this context, the fact that environmental refugees do not have a legally protected status and that the debates on this issue have not been concluded for a long time, it is expected that in the future we will be faced with greater humanitarian crises and the creation of multifaceted dangerous dynamics, and it is necessary to take urgent measures to solve the problem.

Declaration of competing interest

The authors declare that they haven't any known financial or non-financial competing interests in any material discussed in this paper.

Funding information

No funding was received from any financial organization to conduct this research.

References

- [1] A. Mutlu, İ. İrdem & B. Üre , "Ecological Refugee", *Country Politics Management*, vol 10, no 23, pp. 79-118, 2015. [Online]. Available: <https://dergipark.org.tr/tr/download/article-file/2952361>
- [2] O. Ziya, "Climate Refugees in Refugee-Migrant Uncertainty", *TBB Journal*, no 99, pp. 229-239, 2012. [Online]. Available: <http://tbbdergisi.barobirlik.org.tr/m2012-99-1156>
- [3] S. Topgül & O. Beytaş, "Climate Refugees and Social Work: Crisis or Opportunity?", *Community and Social Work*, vol 33, pp. 687-705, 2022.
- [4] M. S. İlk Bilben, " Migration Debates in the Context of Anthropogenic Climate Change", *Journal of Social Policy Conferences*, no 75, pp. 237-268, 2018. [Online]. Available: <https://dergipark.org.tr/tr/download/article-file/610713>
- [5] M. Mutluer, İ. Südaş, An Invisible Global Problem: Environmental Refugees, Ege University Publications, İzmir, 2013, Access Date: 19.09.2022, [Online]. Available: [file://arsiviye/UPMStore2\\$/10381168176/Downloads/GORUNMEZ_BIR_KURESEL_SORUN_CEVRE_MULTEC.pdf](file://arsiviye/UPMStore2$/10381168176/Downloads/GORUNMEZ_BIR_KURESEL_SORUN_CEVRE_MULTEC.pdf)
- [6] F. H. Yılmaz & M. Navruz, "Global Climate Change, Climate Refugees and Security", *ASSAM International Refereed Journal 13th International Public Administration Symposium Proceedings Special Issue*, pp. 255-270, September 2019. [Online]. Available: <https://dergipark.org.tr/tr/pub/assam/issue/48907/578164>

- [7] UN General Assembly, "Convention relating to the Status of Refugees", Access Date: 19.09.2022, [Online]. Available: https://treaties.un.org/doc/Treaties/1954/04/19540422%2000-23%20AM/Ch_V_2p.pdf
- [8] M. K. Akbay, "Climate Refugees" after the Teitiota Decision of the United Nations Human Rights Committee", *Dokuz Eylül University Journal of Social Sciences*, vol 23, no 1, pp. 223-248, 2021, [Online]. Available: <http://dx.doi.org/10.16953/deusosbil.778002>
- [9] N. Tok & R. Korkut, "Climate Refugees in the Context of the Changing Nature of Globalization and Displacement Due to Environmental Insecurities", *Academic Perspective Journal*, no 32, pp. 1-16, 2012.
- [10] İ.B. Kanlı & D. Başköy, "Migration in the Context of Globalization and Environmental Issues: Climate Refugees", *Journal of Politics, Economics and Management Studies*, vol 6, no 3, 2018.
- [11] Ö. Öztürk, "Climatic Migration: Its Reflections on the World and Turkey", Master Thesis, Migration Management, Turkey and Middle East Public Administration Institute, 2018.
- [12] G. Yücel, "Legal Status of Climate Refugees in Turkey", *Middle East Journal of Refugee Studies*, vol 5, no 2, pp. 43-62, 2020. [Online]. Available: <https://dergipark.org.tr/tr/pub/mejrs/issue/66137/1034887>
- [13] İ. Akbaş, "Climate Change and Climate Refugees: An Overview", *International Social Sciences Studies Journal*, vol 4, no 24, pp. 5159-5172, 2018.
- [14] UNHCR, The UN Refugee Agency, Access Date: 27.09.2022, [Online]. Available: <https://www.unhcr.org/62a9d1494/global-trends-report-2021>
- [15] K. Demirci, "The Concept of Climate Refugee in the Framework of International and National Legislation and Its Possible Problems in Turkey", *Turkish Journal of Political Science*, vol 2, no 2, pp. 93-114, 2019.
- [16] Ö. N. Öztürk, "Legal View of the Concept of Climate Refugee: Evaluation of Existing Protection Tools and Solution", *Tesev Evaluation Notes*, vol 6, 2021, [Online]. Available: <https://www.tesev.org.tr/tr/research/iklim-multeciligi-kavraminin-hukuki-gorunumu-mevcut-koruma-araclarinin-degerlendirilmesi-ve-cozum-onerileri/>
- [17] F. Özerdem & B. Barlas, "The New Problem of World Politics in 2020 and Beyond: Climate Change and Climate Migrants in the Framework of the Copenhagen School", *Journal of the Social Sciences Institute of Süleyman Demirel University*, vol 3, no 41, pp. 273-302, 2021.
- [18] A. Reyhan Satır & H. Reyhan, "New Evaluations on the Causes, Results and Solutions of Global Warming", *Memleket Political Management Journal*, vol 11, no 26, pp.1-26, 2016.
- [19] International Migration Report, United Nations, New York, 2017, [Online]. Available: http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017_Highlights.pdf
- [20] M. Hujale, "Somalis abandon their homes in search of food, water and aid as drought deepens", UNHCR The UN Refugee Agency, September 2022. [Online]. Available: <https://www.unhcr.org/news/stories/2022/9/633419134/somalis-abandon-homes-search-food-water-aid-drought-deepens.html>
- [21] UNHCR Staff, "Data reveals impacts of climate emergency on displacement", April 2021. Access Date: 27.09.2022, [Online]. Available: <https://www.unhcr.org/news/stories/2021/4/60806d124/data-reveals-impacts-climate-emergency-displacement.html>
- [22] M. Akalın, "Climate Refugees", *Iksad Publishing House*, 2019, [Online]. Available: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,sso&db=nlebk&AN=2625521&lang=tr&site=ehost-live>
- [23] UNHCR, The UN Refugee Agency, Access Date: 27.09.2022, [Online]. Available: <https://www.unhcr.org/search?query=Global%20Trends%20Report>
- [24] A. N. Balçılar, "Borders and Climate Migration in the Context of Climate Justice", *International Equality Policy Journal*, vol 2, no 1, 2022.
- [25] M. Demirbilek, "Environment, environmental refugees and environmental social work", *International Journal of Social Sciences and Education Research*, vol 2, no 3, 2016, [Online]. Available: <http://dergipark.gov.tr/ijsser>