

New Urban Agenda: Climate Refugees and International Responsibilities

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Abstract—In this study, climate refugees are considered as one of the new urban agenda issues of the 21st century. Thus, the study seeks to highlight the legal status of the concept of “climate refugees” and the position of United Nations as a global arranger, and reveals whether the existing international framework is covering climate refugees issue adequate or not. The offering of the certain solutions related the climate refugee problematic is largely beyond the main aim of this study, but it is apparent that without cooperation between states and international organizations and the conceptual convention, the issue will remain insoluble. This paper has three main parts: In the first part, it will be scrutinized that the conceptual issues and terminology related the issue; and in the second part international legal literature and correspondingly in the third part the position and the potential of United Nations on the issue will be discussed.

Index Terms—climate change refugees, climate change framework, environmental refugees, new urban agenda, new urban and environmental rights, united nations

I. INTRODUCTION

Climate change as an important global environmental problem has greatly influenced the new planning approaches of the 21st century. In this framework climate-friendly cities, energy-efficient cities, ecological residences, green buildings, and so on, are urban political tools that stand out in terms of climate change adaptation. Despite all this however, there has not yet been a sufficient level of debate in urban planning on climate refugeeism. In this context, it is important to explain the “climate refugees” issue primarily theoretically.

The use of the term “refugee” by numerous authors has led to certain confusion, because it evokes the juridical status recognized by the UN Convention of 1951 referring to any person having a “well-founded fear of being persecuted to reasons of race, religion, nationality, membership of a particular social group or political opinion.”

In the international law, there are large-scale gaps in the matter of “environmental refugees” issue in terms of not only protection of those suffering displacement or forced migration because of climate change and on the definition, classification and recognition of the concept of climate refugees. Climate-induced displacement concept can be considered within the more popular notion of “environmental refugees” that was first coined in 1985 as a report title for the United Nations Environment Program (UNEP). When considering the climate and environmental refugees within the scope of new urban and environmental rights, it is obvious that there is no possibility to make legal distinction as to the type of internal or trans-border displacement. However, attempts to conclude a new international arrangement to “climate refugees” would be problematic given the present international legal terminology. In the light of these potential problems, as the biggest global international organization, could United Nations be considered the most effective body to take responsibility for such a role to ensure basic standards and a uniform approach to environmental refugees?

This paper discusses the concept of refugee in the axis of international law and UNHCR reports. According to the definition in the Statute of the UNHCR (United Nations High Commissioner for Refugees), to be considered as a refugee, it is necessary to have a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a social group or political opinion. The legal status of refugees is defined in two international treaties; the 1951 Convention relating to the Status of Refugees and its 1967 Protocol. However, states are still the sole authorities for the final determination of who can be admitted as an immigrant or refugee. Turkey signed the 1951 Convention and its 1967 Protocol with a geographical limitation, and Turkey declared that it would not accept them as refugees, for whatever the reason, those from outside Europe within the framework of the geographical limitation.

Climate change poses risks for human and natural systems [1], [2] and serious threats to urban infrastructure, quality of life, and entire urban systems. [3], [4] In this context, urban areas are highly sensitive to climate

change effects and climate-related migration effects, especially regarding flooding and heat waves. [5]

Cities and urban regions covering 2% of the world's surface area consume almost 75% of the resources and produce almost all the waste. According to the United Nations, roughly half of the world's population lives in urban areas, and this share is increasing over time, projected to reach 60% by 2030. Cities are playing an increasing role in responding to climate challenges and are therefore in need of knowledge to aid in their policy development. The First Assessment Report on Climate Change in Cities (ARC3) provides a scientific assessment of climate change in cities, presenting the information necessary for sound mitigation and adaptation decision-making on a sector-by-sector basis. By specifically addressing climate change in cities, the ARC3 supports the work of local governments, officials and researchers, and complements the work of the Intergovernmental Panel on Climate Change.[6] In this case, the problem of "climate refugees" is one of the subject areas to be addressed within the planning policies of local governments and for sustainable development.

IPCC AR5 [7] is reporting that the risks from climate change (drought, excessive rainfall, flood, landslides, water shortage, air pollution, etc.) tend to increase in urban areas. Moreover, it is expected that climate change will have a major impact on infrastructure systems (water, electricity, sewerage, transport, telecommunication, etc.), public services (insurance, health, disaster and emergency aid), built environment and ecosystem services. It is estimated that not only developing countries but also developed countries will be affected by unexpected climate events. Therefore, it has become a necessity to pass the action in urban areas to be successful in the policy of global climate change adaptation.

Approximately 360 million urban residents live in coastal areas less than 10 meters above sea level and are vulnerable to flooding and storm surges. [8] According to the IPCC [9] fifteen of the world's 20 megacities are at risk from rising sea levels and coastal surges. The IPCC predicts a rise in average sea level over the next 100 years ranging between 13 to 28 centimeters in a low scenario and 26 to 59 centimeters for a high scenario.

Poor urban residents tend to be in the most vulnerable places or regions and their illegal housing construction materials are not stable. In Africa, "by 2020, between 75 million and 250 million people are projected to be exposed to an increase of water stress due to climate change." In Asia, "Freshwater availability in Central, South, East and Southeast Asia, particularly in large river basins, is projected to decrease due to climate change which, along with population growth and increasing demands arising from higher standards of living, could adversely affect more than a billion people by the 2050s". [10] For this reason, in the future, it will not be surprising to expect the increase in the number of climate refugees number.

Hurricane Katrina in the USA also illustrated the higher vulnerabilities of many lower-income groups and

this is an issue that is even more pressing in most urban centers in low- and middle-income nations. [11] In most urban centers in Africa, Asia and Latin America, a significant proportion of the population is not served by solid-waste collection services. In cities or neighborhoods with inadequate solid-waste management or drain maintenance, garbage and plant growth can quickly clog drains, leading to localized flooding with even light rainfall. There are also economic effects, such as the additional cost of climate-control within buildings, and environmental effects, such as the formation of smog in cities and the degradation of green spaces – and increased greenhouse gases if additional demand for cooling is met with electricity generated from fossil fuels. [12]

All these assessments show that the effects of climate change may be forced hundreds of people to leave the cities they live in. Or those who will be affected will have to migrate to other cities or other countries to reach better living conditions and resources. This situation spontaneously draws three main problems:

- Increasing social inequalities,
- The planning problems that have arisen due to the immigrant mobility in cities,
- The "new urban and environmental rights" issue in terms of democracy.

This study specially analyzes the new urban agenda for climate refugees and the international responsibilities on the basis of the role of the United Nations. The research method involves a review of international, U.S. and Turkey literature on climate change, to identify impacts for urban areas; and to suggest some policy principles. This study has three main parts: (1) the conceptual issues and terminology related the issue, (2) International legal and institutional structure and, (3) correspondingly in the third part the position and the potential of the United Nations on the issue will be discussed. Thus, this study aims to develop some suggestions for the new policy alternatives that reflect the specific conditions of status of climate refugees.

II. ENVIRONMENTAL MIGRATION AND CLIMATE REFUGEES

Climate change has been called the greatest challenge currently faced by humanity. [13] There is a high agreement among scientists that the effects of climate change, in combination with other factors, will increase the displacement of people (IPCC, 2014). [14] There is also a scientific consensus that climate change is caused by human activity, which brings with it the burden of responsibility and the opportunity to take measures of mitigation. However, climate change is also a reality that will require adaptation. [15] In this scope; "climate migration" is called as the movement of human immigration caused by disasters such as desertification, floods, drought, tsunami and similar environmental problems.

Climate refugee problem is a matter that envisions a more ecological debate and solution that defines people who are displaced due to environmental problems and

natural disasters. This type of migration, which is caused by environmental reasons, is a newly emerging field in conceptual and legal sense, unlike other migration typologies. While there has been a legal and institutional status based on United Nations works involving comprehensive reports and agreements on the subject of refugees in international law, controversy continues regarding environmental refugees.

The term of environmental refugee, which is sometimes used synonymously with the concept of climate refugees in the literature, is broader and includes people who have been displaced due to natural disasters such as earthquakes, volcanoes, floods, human-induced disasters such as industrial accidents and radioactivity. [16]

In this study, the authors preferred to use the concept of climate refugee to limit the issue. Events associated with climate change that may create refugees include shoreline erosion, coastal flooding, and agricultural disruption. Thus, climate change will also create a new kind of refugee who will be either nondisplaced or minimally displaced geographically, but who instead will be distressed by a new environment that has been displaced onto them. [17]

According to the UNHCR, [18] the term "Climate Refugee" is often used in the media, however, this concept is misleading and does not exist in international law, as a "refugee" has crossed an international border "owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion". [19] From this point, it is important that such studies have been done with the view of social sciences.

The most-quoted definition about the "environmental refugee" goes back to UN Environment Programme (UNEP) researcher Essam El-Hinnawi. El-Hinnawi defined environmental refugees as "...those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life". [20]

However, implementation organizations such as UNHCR, the International Organization for Migration (IOM) or the Office for the Coordination of Humanitarian Affairs (OCHA) as well as several migration researchers have expressed their concern that the term "refugee" in relation to environmental stressors is problematic due to different reasons. [21] Thus argues that "these terms -environmental refugees or climate refugees- have no basis in international refugee law, while also arguing that using the term 'refugee' in for situations characterized by structural push factors of migration risks undermining the refugee framework under the Geneva Convention. The 1951 Convention relating to the Status of Refugees [22] offers protection to individuals who are persecuted by a government or regime, societal groups, or individuals, on one of the five Convention grounds (race, nationality, religion,

membership of a particular social group, or political opinion). [23]

IOM defines environmental migrants as 'persons or groups of persons who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad. [24] Nevertheless, the definition is widely accepted because it tries to encompass all voluntary migrations and displacements due to environmental change. [25]

The terms "environmental induced population movements" (EIPM) and "environmentally displaced persons" (EDP) are alternatives because they describe "a general category of migration movements` where the environmental factor is decisive, but not necessarily unique. [26] The concept of EDP was used by the EACH-FOR project, a major research study funded under the European Community's 6th Framework Programme for Research. [27]

The term encompasses following three categories: Environmental migrants, environmental displacees and development displacees. *Environmental migrants* are people who chose to move voluntarily from their usual place of residence primarily due to environmental concerns or reasons. *Environmental displacees* are people who are forced to leave their usual place of residence, because their lives, livelihoods and welfare have been placed at serious risks as a result of adverse environmental processes and events (natural and/or triggered by people). *Development displacees* are people who are intentionally relocated or resettled due to a planned land use change. [28]

A comprehensive classification of environmental migrations including climate refugees has been made by Renaud et al. According to this classification there are 3 categories describing environmental migrations: (1) Environmental emergency migrants, (2) Environmentally forced migrants, (3) Environmentally motivated migrants. [29] Renaud et al. used the term 'environmental refugees' instead of 'environmental emergency migrants.'

In short, the term of climate refugees refers to people displaced by global warming and climate change. [30] The Internal Displacement Monitoring Centre [31] has reported that since 2008, an estimated one person every second has been displaced by a disaster, with an average of 26.4 million people per year displaced by climate- or weather-related events since 2008. [32], [33] Disasters and slow onsets, such as droughts in Somalia in 2011 and 2012, floods in Pakistan between 2010 and 2012, and the earthquake in Nepal in 2015, can leave huge numbers of people traumatised without shelter, clean water and basic supplies. [34] This shows us that the concept of refugee including climate-induced migrations needs to be redefined by the international law.

Fig. 2.1. below summarizes the effects of climate change in the context of "human rights". At this point, it is thought that "climate refugees" should be evaluated in international law in terms of basic human rights.

RIGHTS	IMPACTS
<i>Right to Life</i>	<u>Survival, Security and Health</u> <ul style="list-style-type: none"> • Insufficient foods, energy resources and specially contaminated water lead to health risks • Mental health problems
<i>Right to Sources of Livelihood</i>	<u>Food, Water, Energy, Shelter, Economic Security</u> <ul style="list-style-type: none"> • Climate change increases the difficulty of accessing all the resources above stated
<i>Right to Capacity Development</i>	<u>Education, Income Generation and Opportunities</u> <ul style="list-style-type: none"> • Increased responsibilities resulting from climate change prevent access to alternative opportunities and sources of income generation • They are often deprived to be educated as being a person
<i>Right to Participation</i>	<u>Decision-making, Opportunities and Information</u> <ul style="list-style-type: none"> • Increased responsibilities due to climate change limit refugee's participation in planning and decision-making process for climate change adaptation activities

Figure 2.1. The effects of climate change on rights of refugees

III. URBAN RESPONSES TO CLIMATE CHANGE: HIGHLIGHTS OF THE USA AND TURKEY EXPERIENCE

A. Cities and Climate Change

If temperatures rise three to six degrees, ocean plankton will be threatened by higher ocean acidity, there will be more heat waves such as the one in 2003 that killed 30,000 people in Europe, the Amazon Basin will grow increasingly dry, and melted snowpacks will threaten major cities due to more severe storms and increasing tides. The evidence of disintegration and migration due to these specific climate change events is not yet as robust as for other environmental stress factors such as political conflict, warfare and natural disasters. However, it is estimated that up to 200 million people could be overtaken by sea level rise, coastal flooding, and droughts once the full effects of global warming take hold. [35], [36] In addition, the majority of the 59.5 million people of concern to UNHCR are situated in 'climate change hotspots' around the world. [37]

For example, the coasts of the island countries such as Maldives, Vanuatu and Tuvalu have begun to flood. A quarter of the Tuvalu population has migrated to New Zealand. In fact, the Tuvalu state is trying to secure their security by forcing their people to move. Tuvalu has always had to fight with extreme weather events like storm surges and floods. But as a consequence of climate change and sea level rise, the frequency and magnitude of these weather events are intensified. [38] A change in sea level is therefore not an abstract risk but a challenging task to the every day life of Tuvaluans. [39] Scandinavian states such as the Netherlands are also facing the problem of rising sea level. In the future, it is thought that these states can be questioned about their legal assets by the disappearance of their land. Although the United Nations has been working on specially displaced persons, the international framework beyond theory for climate refugees has not yet been established.

According to some estimates, if the sea level rises another meter, the Maldives, Marsal islands, Kribati and Tuvalu will become places where people can not live. Due to warming, the drought and the size of the glaciers will increase and between 700 million and 1.5 billion people will suffer water shortages. People living in Asia, Africa and small islands will face being a climate refugee. [40]

In the Africa region, millions of animals and hundreds of thousands of people have lost their lives because of global warming. Valuable land areas in Morocco, Tunisia and Libya are decreasing and desertification is increasing. [41], [42] In Africa, water resources in agricultural areas are also gradually decreasing. It is stated that Africa is the Continent which is most affected by climate change. [43] In Asia, the coastal population is under flood threat due to the rise of the sea and rivers. In Asia, climate change and population growth are likely to reduce demand for water resources as a result of rising living standards. [44]

All these explanations show that there is an important numerical magnitude in the world facing the danger of being a climate refugee. As new actors of the cities, this new group needs to be evaluated separately in terms of human rights, social and economic rights, and the settlement and protection guarantees must be provided by international agreements. One of the new urban agenda issues based on sustainable urban development in the 21st century is the development of urban planning tools for climate change. The UN 2030 Agenda (Sustainable Development Goals) and the Paris Climate Talks have played a decisive role in the implementation of HABITAT III, which is the first UN Conference after COP21, and the new urban agenda, Sustainable Development Goals and COP 21 decisions. Together with Habitat III (October 2016), the UN presents a New Urban Agenda as a roadmap to achieving sustainable urban development, national, subnational and local governments and all other relevant stakeholders, and demonstrates a decisive approach to its implementation. [45] The

following three main commitments stand out in defining the New Urban Agenda: (1) Sustainable urban development for social inclusion and for ending poverty, (2) Sustainable and inclusive urban prosperity and opportunities for all, (3) Environmentally sustainable and resilient urban development.

In this context, climate refugees should also be considered separately in terms of new urban agenda commitments. The following problems are on the agenda of climate change in urban planning: (1) Climate refugees in terms of new urban and environmental rights, (2) The settlement of climate refugees as new citizens of cities, (3) Unexpected population growth, (4) Infrastructure problems in cities, (5) Agricultural land losses and thus the emergence of new life threats.

B. Highlights of the USA and Turkey Experience

During the past 20 years, many cities around the world have developed their own climate action plans and strategies. Although the duties and powers of local governments and statutes vary from country to country, research conducted in this area shows that local governments control measures related to 30-50% of greenhouse gas emissions. Moreover, many cities have become members of national and transnational city networks, ranging from the U.S. Mayors Climate Protection Agreement and the Swedish Klimatkommunerna network to the C40 Cities, an international network of the world's largest cities committed to tackling climate change. [46]

Cities in the USA have embraced the idea that they can meet the climate action challenge. They are locations for the production of greenhouse gases (GHGs) and they have over 100 years of experience in producing plans. Many communities have adopted documents entitled Climate Action Plans (CAP) and begun to implement them. The results have been mixed. The process for developing plans has been highly popular with professionals, politicians and citizens. However, the plans call for adopting measures and analyzing impacts that are often beyond the control of the local government. Thus, the effectiveness of the plans is often mixed. CAPs are becoming more common. The question is whether communities have capacity, tools and targets in place to make the significant change required by climate change.

There is a great deal of diversity in what constitutes a CAP. Some are only a collection of phrases designed to motivate private individuals while others have a clear set of goals and objectives as well as implementation proposals [47]. Although national resilience standards are useful, a more successful approach is to use local standards that emphasize community hazard mitigation and climate change adoption [48]. The existence of local political leadership is important in determining the type of plan produced as well as the amount of public participation that is reflected in the preparation of the document. Most plans rely on well-understood and accepted land use and transportation techniques to implement their CAP. These include enhanced mass transit, mixed use and denser community building patterns and energy efficient building regulations.

Furthermore, the most popular methods used to show compliance with CAPs include those that are highly visible (e.g. tree planting) or those programs that provided an immediate return to calculations (e.g. weatherization programs that save building energy). Furthermore, the CAPs are done as special plans, not as part of a typical revision or initiation of a comprehensive land use plan. In that sense, community planners are sometimes not in charge of the process of drafting and adopting the CAP [49].

The main issue with improving the effectiveness of CAPs should do with the use of GHGs estimates. The predictions are generally accurate but the target reductions are often modest as compared to scientific models. The plans need to reflect the possibility of climate changes that occur outside the community but affect it internally [50]. The role of future changes that are beyond the control of the local government should be factored into the CAPs. In particular, rapid population growth is important in determining GHG emission forecasts and in setting reduction targets. One solution might be to use a longer time horizon in planning along with other non-typical planning methods in the preparation of the CAP [51]. In addition, GHG estimates could be analyzed to see if their reduction improves the environmental health as reflected in pollutants such as ozone, particulate matter and nitrogen oxides that severely impact low-income communities [52].

Another approach may be to change the way CAPs are presented to the public. By characterizing climate change as another natural resource hazard to be dealt with such as floods, earthquakes, fires, etc. the public acceptance of a CAP increases dramatically. Opposition is also lessened, as opposed to characterizing a CAP as a potential environmental disaster [53]. This suggests a different strategy. Emergency managers cannot stop natural events such as snowstorms or hurricanes because they have no control over the event. However, they can plan for the occurrence using the tools of disaster management. The analogy to climate change is clear. There would be more focus in CAPs on adaptation rather than mitigation.

In Turkey's perspective, we can see that a structural changing to deal with climate change impacts emerged especially after 2004. Turkey's location on the Mediterranean makes it vulnerable to coastal erosion, flooding, frequent droughts, and land degradation. In 2004, Turkey became a party to the UN Framework Convention on Climate Change, and in 2009 it signed the Kyoto Protocol-a global agreement with legally binding targets to control carbon dioxide emissions. With limited experience on climate change, the Turkish Government turned to UNDP for support on key issues. Turkey has stipulated that renewable energy sources (RES) will have at least 30% share in electricity generation by 2023. In 2009 Turkey completed a National Climate Change Strategy, and it has embarked on renewable energy projects. The government provides incentives to the industrial sector to encourage "climate-friendly" technologies, and has involved private businesses in the adaptation efforts - an estimated 80 percent of

investments in energy efficiency and emissions reductions will need to come from businesses and consumers. Through its numerous national plans, programs and strategy documents, primarily the development plans, Turkey has put into effect many policies and measures for tackling climate change, especially in the energy, agriculture, forestry, transportation, industry and waste sectors. Moreover, Turkey is willing to contribute more to international efforts in this field, within the framework of its own means and potential.

IV. THE REGULATORY ROLE OF UNITED NATIONS AND RESPONSIBILITIES FOR CLIMATE REFUGEES

A. General Overview

When the term “environmental refugees” was first introduced in the 1970s experts were divided in their characterization of the phenomenon and generally fell into two groups: the alarmists who see environment as the direct cause of population movements and predict that hundreds of millions will be affected and the skeptics who are questioning the simplified models used to generate these estimates. [54], [55] The most quoted prediction estimate that 200 million people will be forced to migrate due to climate change by 2050 (I. [56], [57])

According to the UNHCR data, an unprecedented 65.6 million people around the world have been forced from home. Among them are nearly 22.5 million refugees, over half of whom are under the age of 18. There are also 10 million stateless people who have been denied a nationality and access to basic rights such as education, healthcare, employment and freedom of movement. In a world where nearly 20 people are forcibly displaced every minute as a result of conflict or persecution. [58]

The Representative of the Secretary-General on the Human Rights of Internally Displaced Persons, Walter Kälin, [59] has identified five climate change-related scenarios that may directly or indirectly cause human displacement. They provide a useful starting point for analyzing the character of displacement and assessing the protection and assistance needs of those affected: (1) hydro-meteorological disasters (flooding, hurricanes/typhoons/cyclones, mudslides, etc.); (2) zones designated by Governments as being too high-risk and dangerous for human habitation; (3) environmental degradation and slow onset disaster (e.g. reduction of water availability, desertification, recurrent flooding, salinization of coastal zones, etc.); (4) the case of ‘sinking’ small island states; and, (5) violent conflict triggered by a decrease in essential resources (e.g. water, land, food) owing to climate change.

B. The Regulatory Role of the United Nations and Responsibilities

In today’s world, the most basic problem of the category of “climate refugee” is essentially undetermined, and is the lack of a legally recognized in the existing international law. There are no legal frameworks, conventions, protocols, agreements, and specific guidance documents to define the conditions of the protection and assistance for internationally displaced people due to

climate change. Although international humanitarian law may be applicable in some cases of environmental origin, it does not apply -particularly in terms of rights such as international humanitarian aid and reintegration- to climate refugees.

Therefore, under the Refugee Convention, changes in the environment cannot be assigned responsibility when humans are induced to move because of environmental changes. Further, refugees are people who have crossed an international border, but in the majority of cases, it is likely that at least in the first instance, people displaced by environmental factors will be Internally Displaced Persons-IDP. Finally, governments that sign the Refugee Convention agree to offer protection and assistance to those designated as refugees. This assistance is linked with funding and resources, which some worry might be diluted if wider numbers of people (including environmentally induced migrants) were granted refugee status.

In this context, the regulatory role and responsibilities of the United Nations can be described under the following headings:

- Clarification of the legal status issue,
- Protection gaps within the scope of the legal issue
- Developing of the new political mechanism and possible policy responses

In this study, the authors are based on the typology of environmental migrations specially developed with the EU perspective which is presented in the Report titled "Climate Refugees-- Legal and policy responses to environmentally induced migration" in order to discuss the role of the United Nations only for climate refugees. The typology does not distinguish the geographical scope of the movements as all three proposed categories apply to internal and international migration flows. This typology is shown below Figure.4b.1., and the typology is interpreted in terms of only climate-induced displacements as a source of environmental migration.

Category	Cause of Movement	Nature of Movement	Protection Gaps
Environmentally Induced Temporary displacement	Rapid-onset natural disasters	Temporary forced displacement in national borders	Displacement across borders Temporary Protection
	Slow-onset natural disasters	Temporary forced displacement in international areas	Limited Protection
Environmentally Induced Permanent Displacement	Rapid-onset natural disasters (recovery is slow)	Permanent forced displacement in national borders	Displacement across borders Permanent Protection
	Slow-onset Events (no alternative) Sea-level rise area no longer exists)	Permanent forced displacement across international borders	Durable solutions Displacement within countries
Environmentally Induced	Slow-onset internal	Temporary or	Limited

migration	natural disasters protection	permanent migration across	protection Weak
	Rapid-onset Natural disasters (if people do not return)	(anticipating worsening conditions, search for opportunities)	framework for migrants both at national and international levels

Figure 4b.1. Typology of environmentally induced migration¹

Source : [60]

As stated above the process of climate change reflects to population movements in two ways: Permanent displacement and temporary displacement. Population movements affected by tornadoes, floods, earthquakes, tsunamis formed by gigantic waves can be defined as temporary displacement which is expected to be realized in an urgent and short time. It is not clear to describe the boundaries of these events. In such cases migration can be characterised as forced movement. Permanent displacement can be explained that if disaster response after rapid-onset climate events is slow and ineffective, this limits the range of choices about people’s mobility and people cannot return to the affected area. These people become permanent environmental displaced. However, not-resettling displaced persons to their original homes may also be a conscious policy decision by governments. [62]

In temporary and permanent environmental migrations including climate change, people can escape to international borders (sometimes beyond their borders) and take shelter, as they can escape to, or go to, safe places within the country where they live. When they stay in safe places within their own countries or states, their status in the international refugee law become Internally Displaced Persons (People-IDP). People who have been displaced from their homeland are of interest to the United Nations High Commissioner for Refugees-UNHCR, and are at least able to benefit from minimum international protection. However, it is seen that these people do not have any legal status when there is a large population movement at international borders due to an environmental disaster, or when this population exceeds international borders. In the framework of international refugee law, this person is not given refugee status. They cannot benefit from the international protection because they are not given refugee status. These people are not called immigrants by the states. So, they have an "uncertain" status.

Refugee definition in the 1951 Refugee Convention is not applicable to people who have crossed international

borders due to climate change. The fact that this transboundary movement is imperative and the definition of such movements is a criterion that can be evaluated within the framework of expanding the refugee definition.

Another adverse effect of climate change on people is also emerging from the standpoint of the state. It is a controversial issue that when the land as the main elements of the state is left in the face of an environmental disaster, these people who are living in international law that they cannot sustain the existence of a legal status within the country, to which they are bound by the citizenship, and these people are not to be considered stateless in international law.

From this point, the expansion of the 1951 Geneva Convention and its 1967 Protocol is often cited as a possible option in the context of environmental displacement. [63] Because there is an international awareness of this issue. On the Climate Change Copenhagen Conference in 2009, the Bangladeshi Finance Minister called on the UN to redefine international law while stating: “The convention on refugees could be revised to protect people [environmental refugees]. It’s been through other revisions, so this should be possible.” [64]. Thus, 1951 Refugee Convention should be strengthened by additional legal instruments by regions.

Key stakeholders such as the UNHCR have voiced major reservations regarding the notion of ‘environmental’ or ‘climate refugees’. According to the UNHCR, ‘refugee’ should be seen as essentially a legal term directly linked to the Geneva Convention. However, it is widely accepted that people who are forced to leave their country of origin due to effects climate change will not ordinarily fulfill the legal definition of “refugee” in the Geneva Convention.

Another discussed option at the global level is the addition of a protocol on climate-induced migration to the *United Nations Framework Convention on Climate Change-UNFCCC*. The climate regime does not adequately address to the climate refugees, and the sources of financing needed to help developing countries cope with climate change effects.

UNFCCC and IPCC reports are central in policy discussion of climate change and their principles or suggestions play an outsized role in setting benchmark for international action. Within this context, a proposed new convention under the UN framework should include an extensive set of rights and obligations, combined with the implementation mechanism, and include elements of referring the root causes for displacement. The international community has a responsibility to take on climate refugees in the scope of international protection as well as to fulfill its responsibilities such as burden sharing and assistance.

Briefly, while UNHCR recognizes environmental degradation and climate change as a condition that can lead to cross-border migrations, it does not consider them to be the basis for granting refugee status under international law. The real problem is already here.

The Representative of the Secretary-General on the Human Rights of Internally Displaced Persons, Walter

¹ According to the Report, environmentally displaced people can be defined as people who had to leave their place of residence to save their lives. The movement can be characterized as forced migration because the environmental event which has an impact on livelihoods of affected populations can be clearly identified as the trigger of the movement with no alternative livelihood being possible. According to the typology deployed by Renaud (2007) this category includes the ‘environmental emergency migrant’ and ‘environmental forced migrant’ [61]

Kälin [65], has noted that achieving international consensus within the framework of a new climate refugee convention will be difficult due to problems in the analysis of climate effects. For this reason, the expansion of the UNHCR 1951 Geneva Convention including climate refugees (or environmental refugees) rather than the creation of a new Convention seems to be a more appropriate policy option. In addition to this, a synthesis of the existing international legal mechanisms can be developed by following the example of the Guiding Principles on Internal Displacement dated 1998.

The realization of a specific legal framework for a new refugee contract or treaty depending on environmental factors does not seem easy at this stage. However, the legal and institutional infrastructure of the existing system can be improved in this sense. Finally, the current system should be reassessed with a new approach, especially in terms of the following issues: (1) Broadening the concept of “internally displaced persons”, (2) Redefining of the scope of the 1951 Convention in the framework climate change, (3) Establishment of at least temporary protection mechanism for climate refugees, (4) Review of the Convention on Human Rights in terms of climate refugees, (5) Establishing a framework for resettlement solutions, (6) Reducing vulnerabilities of affected populations.

C. The Response of the United States to Climate Refugees

In 2003, the Pentagon entered the climate and security fray by sponsoring a scenario of the impacts of abrupt climate change. Widely reported in the press, the scenario painted a familiar neo-Malthusian nightmare of poor, starving populations overshooting the reduced carrying capacity of their lands, engaging in violent conflict over scarce resources, and storming en masse towards United States and European borders. The overall message of that effort is that climate change may be the biggest security challenge the United States faces, and that it presents ‘surprisingly similar’ challenges as terrorism. [66]

In the United States, the effects of Hurricanes Katrina and Rita on New Orleans and the Gulf Coast region provide an example of what could happen to coastal and nearby cities affected by hurricanes and coastal flooding. These hurricanes struck the Gulf of Mexico between Texas and Florida within weeks of each other in 2005. Although hurricanes and other damaging environmental events are not rare for this region, Katrina was the sixth most powerful and costly hurricane thus far recorded; and Rita ranked fourth most powerful, although it struck a less-populated region and created a group of climate refugees.

These principles propose that out-migration from areas experiencing environmental crises such as climate change tend to be of short-duration and short-distance and focus on ties to urban areas. Nearby and urban counties will become the origins of in-migrants to the crisis-affected areas in the recovery period, and extend them by showing that these in-migration streams will be larger in the recovery period if the disaster-affected area is reconstructed.

V. CONCLUSION

Refugee problem is an issue in the international arena that is often addressed in terms of political, economic, and cultural dimensions and which produced more political solutions to the problems encountered. However, climate refugee problem is a matter that envisions a more ecological debate and solution that defines people who are displaced due to environmental problems and natural disasters. This type of migration, which is caused by environmental reasons, is a newly emerging field in conceptual and legal sense, unlike other migration typologies.

Climate change poses risks for human and natural systems and serious threats to urban infrastructure, quality of life, and entire urban systems [67]. In this context, urban areas are highly sensitive to climate change effects and climate-related migration effects, especially regarding flooding and heat waves [68], [69]. Climate change affects people inside their own countries, and typically creates internal displacement before it reaches a level where it pushes people across borders. Nonetheless, there may be situations where the refugee criteria of the 1951 Convention may apply, for example if drought-related famine is linked to situations of armed conflict and violence. Regardless, the term “climate refugee” is not endorsed by the UNHCR or by the Platform on Disaster Displacement, and it is preferable to refer to “persons displaced in the context of disasters and climate change.” [70]. In this case, “climate refugees” issue is one of the subject areas to be addressed within the planning policies of local governments and for sustainable development. UN Sustainable Development Goals have some climatic views such as security (peace and avoiding armed conflicts, avoiding mass migration), social justice, some ethical issues, intergenerational equity and environmental preservation.

In today’s world, the category of “climate refugee” is essentially underdetermined; it adopts a rather static view of climate-society relationships. The realization of a specific legal framework for a new refugee contract or treaty depending on environmental factors does not seem easy at this stage. However, the legal and institutional infrastructure of the existing system can be developed under the roof of the United Nations. The current system should be reassessed with a new approach, especially in terms of the following issues: (1) Broadening the concept of “internally displaced persons”, (2) Redefining of the scope of the 1951 Convention in the framework climate change, (3) Establishment of at least temporary protection mechanism for climate refugees, (4) Review of the Convention on Human Rights in terms of climate refugees, (5) Establishing a framework for resettlement solutions, (6) Reducing vulnerabilities of affected populations. In this context, climate refugees should also be considered separately in terms of new urban agenda commitments. The following problems are on the agenda of climate change in urban planning: (1) Climate refugees in terms of new urban and environmental rights, (2) The settlement of climate refugees as new citizens of cities, (3)

Unexpected population growth, (4) Infrastructure problems in cities.

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