

Tilburg University

**The issue of climate-induced displacement from
the perspective of International Environmental
Law**

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Introduction

The skepticism about the reality of anthropogenic climate change has been greatly diminished by numerous reports of the Intergovernmental Panel on Climate Change (IPCC)¹ and prognoses of the other UN bodies. The swift growth of the number of weather-related natural disasters and continuing rise in global temperature confirms the advancement of climate change and extends its influence from nature to human. Already in 1990, the IPCC predicted that one of the greatest impacts of climate change will be on human migration.²

Current estimations on climate-induced displacement range between 25 million and 350 million people by 2050.³ According to Norman Myers, the total number of people at risk of sea-level rise in Bangladesh is around 26 million, in Egypt 12 million, in China 73 million, in India 20 million, and several other parts of the world 31 million, making an aggregate total of 162 million. In addition, at least 50 million people could relocate due to droughts and other climate change impacts. In total, Myers predicts displacement of 212 million people for the reasons of climate change by 2050.⁴ The Stern Review on the Economics of Climate Change, even though, criticizing the way Myers results have been tested, agrees that there will be 200 million displaced by 2050.⁵ According to the UN Secretary-General, the potential number lies between 50 and 350 million.⁶ Ultimately, it is possible to generalize that the total number of those who relocate will be around 200 million.

Furthermore, climate-induced displacement is not only a matter of future concern. The evidence illustrates that climate change already causes population movements. For example, in 1995, half of Bhola Island in Bangladesh became permanently flooded, forcing half million people to relocate.⁷ In 1999, two Kiribati's island, Tebua Tarawa and Abanuea, have disappeared

¹ http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml

² Climate Change: The IPCC 1990 and 1992 Assessments, IPCC First Assessment Report Overview and Policymaker Summaries, and 1992 IPCC Supplement, p.55.

³ Christian Aid, Human Tide: The Real Migration Crisis, London, 2007, p.5-6.

⁴ Norman Myers, Environmental Refugees "Environmental refugees: A growing phenomenon of the 21st century. Philosophical Transaction: Biological Science 357, 2002, p.609 -611.

⁵ Stern Nicholas, The Economics of Climate Change: The Stern Review, Cambridge University Press, Cambridge, 2006, p.77.

⁶ UN, Report of the Secretary-General on Climate change and its possible security implications, 11 September 2009, document A/64/350 [Secretary-General Report] at §54.

⁷ Emily Wax, In Flood-Prone Bangladesh, a Future That Floats, Washington Post, September 27, 2007, available at: <http://www.washingtonpost.com/wp-dyn/content/article/2007/09/26/AR2007092602582.html>.

because of the sea-level rise.⁸ Other unprecedented evidence is the disappearance of the Lohachara Island in December 2006, which left 10,000 people homeless.⁹

People who are already relocated, or those who will be, are going to suffer a significant infringement of basic human rights, and needed to be protected. At the same time, they present a threat to the neighboring states, as massive flow of migrants is fraught with the risks of conflicts and economical instability. The issue has already received a great deal of attention from scholars and the international community, but the way to tackle the problem remains unclear. One of the most crucial barriers from a legal perspective is that the category of people relocated by climate change is yet not recognized under international law. The absence of legal status and definition creates a difficulty for legal scholars, politicians and policy-makers to agree which legal framework can be applied to these people. Among the most accepted approaches is the application of refugee law, environmental law, human rights law, or the creation of an entirely new convention.

The current research aims to analyze the issue of climate induced displacement from the perspective of international environmental law. The distinctive character of this type of displacement lies in the fact that the relocation is triggered by climate change. Hence, the environmental legal framework seems to be of a particular relevance to them, as it actually lays down general responsibility of the states for environmental damages and deals specifically with the issue of climate change. Yet, the question whether people displaced by climate change can count on the support and protection of international environmental law is highly controversial. Therefore, the central research question, which current thesis aims to scrutinize, concerns the limitations and opportunities of international environmental law in dealing with the problem of climate induced displacement. The findings of this analysis will become an important part of the research project that the author aims to conduct during her PhD-research. The proposed PhD project concerns the issue of protection of people displaced by climate change under international law. As international environmental law is one of the legal frameworks that can

⁸ Sci/Tech Islands disappear under rising seas, BBC News, Monday, June 14, 1999 Published at 18:13 GMT 19:13 UK, available at: <http://news.bbc.co.uk/2/hi/science/nature/368892.stm>.

⁹ Disappearing World: Global Warming Claims Tropical Island, The Independent, December 24, 2006, available at: <http://www.independent.co.uk/environment/climate-change/disappearing-world-globalwarming-claims-tropical-island-429764.html>.

potentially be applied for the protection of displaced people, its detailed investigation appears to be crucial for the further extensive research.

The first section of this thesis will focus on the controversial issue of causality between climate change and population displacement. The difficulty to establish the causation link presents a significant stumbling block in approaching the issue. The analysis of the particular impacts of climate change and the ways it affects certain regions of the world will reveal its actual influence on human migration.

In the second section the applicability of international environmental law will be tested. For this purpose the general principles of customary international law and the rules of international environmental law will be analyzed. This will help to reveal the limitations and opportunities of international environmental law in dealing with the issue of climate induced displacement.

Ultimately, the ways to improve the state of international environmental law will be considered, so it can extend to people displaced by climate change. The analysis of three particular proposals, which seems to be the most realistic and feasible, will show how international environmental law can be amended so that the issue of climate induced displacement will be tackled. Furthermore, these proposals will be compared and their strongest sides and elements which have a particular potential will be revealed.

1. Climate change as a push factor for migration

Approaching the problem of climate induced displacement from the perspective of international environmental law is highly perplexing. The main obstacle in acknowledging international environmental law as a relevant framework to deal with the problem of climate-induced displacement is the issue of causality. The relationship between climate change and migration is considered to be highly controversial. Scholars and policy-makers generally disagree whether there is a direct causal link between climate change and relocation.

The position of those who are skeptical about the relation bases on the claim that it is impossible to identify whether the person has moved because of climate change or because of the scanty living conditions in general. The geography of climate change is such that the majority of people induced to displacement come from the developing and least developed countries. People living in such poor, developing regions, exposed to floods, sea-level rise, or droughts in general, suffer from overwhelming unemployment, lack of food, water and other sources. Therefore, their relocation might be mainly caused by the search for improvements and opportunities, rather than environmental vulnerability at the first place¹⁰. Particularly, in case of slow-onset disasters, it is hard to identify certain critical point at which relocation begins and, therefore, to acknowledge climate change as the initial push factor. Hence, some scholars claim that even though environmental degradation is undoubtedly a driver of displacement, it is unlikely that it is the unique cause, as other conditions are always taken into account in person's decision to migrate.¹¹

The response to these arguments by those who argue for the existence of the causation link, shows what environmental factors currently affect the planet and how these factors can provoke and influence population movement. According to the last report of the IPCC, humanity can expect a whole number of severe consequences caused by climate change.¹² Some of those effects can already be observed, however the alarming rate of environmental change will intensify them, and more than likely bring new ones. The majority of scientists agree that global temperatures will continue to rise throughout the following decades. The IPCC forecasts a

¹⁰ Jane McAdam, *Swimming against the tide: Why a Climate Change Displacement Treaty is not the Answer*, Forthcoming in (2011) 23(1) *International Journal of Refugee Law*, p.11.

¹¹ Benoit Mayer, *The International Legal Challenges of Climate-Induced Migration: Proposal for an International Legal Framework*, *Colorado Journal of International Environmental Law and Policy*, Vol. 22, No. 3, 2011, pg.10.

¹² IPCC, *Fourth Assessment Report: Climate Change 2007, Summary for Policymakers*, in *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, UK, p.17.

temperature rise of 2.5 to 5 degrees Fahrenheit (1 to 3 degrees Celsius) over the next century.¹³ Seemingly insignificant, such an increase will have dramatic consequences for some regions. Among the aftereffects of these changes are: (1) the increase in strength and frequency of tropical cyclones, rainfalls, and floods; (2) droughts and desertification; and (3) sea-level rise.

1.1. Main aftereffects of climate change

Tropical cyclones, rainfalls, and floods

The change of rainfall patterns, increase frequency of tropical storms and amount of floods are examples of sudden onset factors influencing population relocation. According to the latest report of the International Disaster Database (EM-DAT) the number of victims of floods during the 2010 accounts for more than 178 million people. In comparison, the yearly average during 2000-2009 was around 95 million people.¹⁴ Furthermore, the latest IPCC's study predicts a 'very likely increase in hot extremes, heat waves and heavy precipitation', a 'likely increase in tropical cyclone activity', with 'less confidence in the decrease of tropical cyclone numbers', as well as 'very likely precipitation increases in high latitudes and likely decreases in most subtropical land regions' by the end of this century.¹⁵ Additionally, it is expected that annual run-off and precipitation will increase in high latitudes. The IPCC notes that the growth in the intensity of the tropical cyclone activity and in the amount of floods presents a potential for population migration.¹⁶

The last claim, however, is greatly criticized by those who doubt the link between climate change and migration. Numerous studies show that sudden onset disasters and events lead mostly to short-term internal displacement rather than long-term cross-border displacement. This is explained through the fact that the geography of climate change is such that among its main victims are the poor, developing countries with a low adaptive capacity and limited recourses to

¹³ IPCC, Fourth Assessment Report: Climate Change 2007, Summary for Policymakers, in Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge, UK, p.17..

¹⁴ International Disaster Database EM-DAT, Centre for Research on the Epidemiology of Disasters CRED, 2010 Disasters in Numbers, 2011, available at: <http://cred.be/sites/default/files/PressConference2010.pdf>.

¹⁵ Intergovernmental Panel on Climate Change, 2007 Climate change 2007. Synthesis report, Geneva, Switzerland: IPCC.

¹⁶ Wilbanks, T. J., Romero Lankao, P., Bao, M., Berkhout, F., Cairncross, S., Ceron, J.-P., Kapshe, M., Muir-Wood, R. & Zapata-Marti, R. 2007 Industry, settlement and society. In Climate change 2007: impacts, adaptation and vulnerability. Contribution of Working Group II to the 4th Assessment Report of the Intergovernmental Panel on Climate Change (eds M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden & C. E. Hanson). Cambridge, UK: Cambridge University Press.

relocate. People from these vulnerable regions tend to stay where they live as long as possible despite the severe climate impacts, or, in the worse case, to move within a short distance. The riverbank erosion study conducted in Bangladesh shows that households, on average, move only one kilometer away from their homes, with 10 kilometers the furthest distance.¹⁷ Furthermore, people living in these areas are even reluctant to move far “because of attachment to the land where their forefathers had lived and out of a deep respect for their ancestral homes”.¹⁸

Overall, the potential of tropical cyclones, floods, and torrential rains to provoke long-term and long-distance migration, while ascertained, remains limited.¹⁹ Yet, there is no convincing evidence that migration would not occur. No matter what character (internal or cross-border, short term or long term) the relocation will take in the nearest future, the swiftly growing rate of climate change might dramatically change the picture at certain point.

Droughts and desertification

Droughts and desertification is another group of extreme weather events which climate change provokes. According to the IPCC study there have been 75 million of persons each year affected by extreme temperatures during the period between 2000 and 2009.²⁰

Water stress that also means the lack of drinking and irrigation water greatly differs from such sudden weather events as storms and floods, as it leads to more progressive patterns of mobility.²¹ As the IPCC prognoses *‘fresh water 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 demand arising from higher standards of living, could adversely affect more than a billion people by the 2050’s’*.²² Nevertheless, the

¹⁷ Chowdhury R Abrar/Syed Nurullah Azad, *Coping with Displacement: Riverbank Erosion in North-West Bangladesh* (2004), pp.33–34.

¹⁸ Jane McAdam and Ben Saul, *Displacement with Dignity: International Law and Policy Responses to Climate Change Migration and Security in Bangladesh*, Sydney Law School, Legal Studies, research Paper No. 10/113, November 2010, p.8.

¹⁹ Etienne Piguet, Antoine Pe’coud, and Paul de Guchteneire, *Migration and Climate Change: an Overview*, *Refugee Survey Quarterly*, Vol. 30, No. 3, 2011, p.8.

²⁰ International Disaster Database EM-DAT, Centre for Research on the Epidemiology of Disasters CRED, 2010 *Disasters in Numbers*, 2011, available at: <http://cred.be/sites/default/files/PressConference2010.pdf>.

²¹ Etienne Piguet, Antoine Pe’coud, and Paul de Guchteneire, *Migration and Climate Change: an Overview*, *Refugee Survey Quarterly*, Vol. 30, No. 3, 2011, p.9.

²² Intergovernmental Panel on Climate Change. 2007 Summary for policymakers. In *Climate change 2007: impacts, adaptation and vulnerability. Contribution of Working Group II to the 4th Assessment Report of the Intergovernmental Panel on Climate Change* (eds M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden & C. E. Hanson), pp. 12–13. Cambridge, UK: Cambridge University Press.

empirical evidence on the issue is inconsistent. Some studies claim that there is a direct link between droughts and desertification and population migration. For example, there are numerous cases in Africa, South America and Middle East of mass population movements as a response to draughts.²³ On the other hand, a number of scholars are skeptical about the link between droughts and relocation, claiming that people exposed to water stress have always had a choice between the different coping strategies. Migration is only one of those.

Yet, the findings of researches are highly controversial. This brings additional confusions for policy-makers. For example, one of the conclusions of the recent EACH-FOR project has shown that water stress can affect migration patterns in different directions.²⁴ Similarly, another research has resulted in the conclusion that the occurrences of international migration can even diminish during the periods of droughts.²⁵

Therefore, in case with droughts, it is hard to conclude to what extent water stress influences population movement. These confusions and lack of accord in statistics and estimations make it particularly difficult to recognize climate change as a cause of relocation.

Sea-level rise

During the 20th century, sea-levels rose about 15 cm due to melting glacier ice and the expansion of warmer seawater. Latest models predict that sea levels may rise as much as 59 cm during the 21st century, threatening coastal communities, wetlands, and coral reefs.²⁶ The IPCC warns that *'Many millions more people are projected to be flooded every year due to sea-level rise by the 2080s. Those densely-populated and low-lying areas where adaptive capacity is relatively low, and which already face other challenges such as tropical storms or local coastal subsidence, are especially at risk. The numbers affected will be largest in the mega-deltas of Asia and Africa while small islands are especially vulnerable'*.²⁷

²³ See for example droughts in Sahel, Ethiopia, Argentina, Brazil, Syria, Iran.

²⁴ Environmental Change and Forced Migration Scenarios, EACH-FOR, European Commission, 2007-2008

²⁵ Black, R. 2001 Environmental refugees: myth or reality? New Issues in Refugee Research, Working Paper No. 34. Geneva, Switzerland: UNHCR.

²⁶ Intergovernmental Panel on Climate Change. 2007 Summary for policymakers. In Climate change 2007: impacts, adaptation and vulnerability. Contribution of Working Group II to the 4th Assessment Report of the Intergovernmental Panel on Climate Change (eds M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden & C. E. Hanson), pp. 12–13. Cambridge, UK: Cambridge University Press.

²⁷ Intergovernmental Panel on Climate Change. 2007 Summary for policymakers. In Climate change 2007: impacts, adaptation and vulnerability. Contribution of Working Group II to the 4th Assessment Report of the

While in case with above discussed groups of environmental factors (tropical cyclones, rainfalls, and floods and droughts and desertification) there are numerous uncertainties about the causation link, the case of sea-level rise appears to be much clearer. The first difference is that sea-level rise considered to be more foreseeable and that relevant predictions can extend to longer terms.²⁸ Secondly, it is easier to identify the populations at risk and forecast their response. Sea-level rise is irreversible to large extent.²⁹ In the situation when there is no respective infrastructure and the adaptive capacity of affected region is low the migration will appear to be the only possible solution.

Therefore, it can be concluded that sea-level rise can be acknowledged as an impact of climate change that provokes population relocation. Yet, there are still some puzzles for researchers and policy-makers, such as the difficulty to predict the moment at which people will decide to relocate. People can actually move long time before the sea-level rises to the extreme point, and therefore it is hard to identify from which moment the relocation can be claimed as ‘due to sea-level rise’.

1.2. Impacts of climate change on migration in different regions of the world

There is another way to approach the issue of causality. Instead of focusing on various associated to climate change environmental factors individually, we can concentrate on the most vulnerable to climate change geographical regions. This gives another perspective on the relation between climate change and displacement, as it specifically shows how inhabitants of the affected regions threaten by climate change and what are their alternatives in responding to it.

It is very likely that at certain point the consequences of climate change will be visible worldwide and that each continent will suffer its grave impacts.³⁰ Currently and in the nearest future, the influence of climate change on migration will be most notable in already vulnerable regions of the world. Some of these effects can already be observed. The alarming rate of environmental change will sharper them, and more than likely bring new ones. Notwithstanding

Intergovernmental Panel on Climate Change (eds M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden & C. E. Hanson), pp. 12–13. Cambridge, UK: Cambridge University Press.

²⁸ François Gemenne, Climate-induced population displacements in a 4°C+ world, *Phil. Trans. R. Soc. A*, 2011, p. 185.

²⁹ Etienne Piguet, Antoine Pe'coud, and Paul de Guchteneire, Migration and Climate Change: an Overview, *Refugee Survey Quarterly*, Vol. 30, No. 3, 2011, p.12.

³⁰ IPCC, Fourth Assessment Report: Climate Change 2007, Summary for Policymakers, in *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, UK, p.17.

the fact that in general the effects of climate change will be felt worldwide, it is possible to allocate several areas which are particularly vulnerable to climate change effects. Among them are the small island states, coastal zones and regions of Africa and Asia.³¹ It is these hotspots that will be especially affected by climate change and where the induced relocation will take place.

Small island states are greatly threatened by sea-level rise, as some of them lie less than two meter above sea level. If the sea level rises to the respective point, such islands as Tuvalu and Kiribati will be wiped of the face of the earth.³² Other states, including the Maldives, the Marshall Islands, and a number of Caribbean islands are also threatened. Besides the risk that the sea-level rise poses, numerous associated climate-change effects, such as storms, droughts, and more frequent heat-waves can be expected. For example, the predicted 10% decrease in the rainfall by 2050 could reduce the availability of fresh water on Kiribati by 20%.³³ Any of listed above climate change's aftereffects will at certain point force the inhabitants to flee these islands.

Due to the geographical location and the population density, South and East Asia are among the other spots greatly imposed to large-scale forced migration. Many of the Asian urban cities, such as Shanghai and Calcutta are dangerously threatened by tropical cyclones and storms.³⁴ There is evidence that the intensity and frequency of many extreme weather events such as heat waves, tropical cyclones, prolonged dry spells, intense rainfall, tornadoes, snow avalanches, thunderstorms, and severe dust storms in the region only increases.³⁵ Low-lying and shoreline areas, such as Bangladesh, are at the top of the risk group. The coastal zone of Bangladesh, which covers about 30 percent of the country, is home to about 35 million people. According to the 2007 UN Forth Assessment Report of the IPCC, one meter rise of sea-level will cost Bangladesh up to 17 percent of its land, and will displace at least 35 million people by 2050.³⁶ Another climate-change related threat that Asia faces is the melting of glaciers. This will

³¹ Bonnie Docherty, Tyler Giannini, *Confronting a rising tide: A Proposal for a Convention on Climate Change Refugees*, Harvard Environmental Law Review, Vol.33, No.2, 2009, p. 355.

³² German Advisory Council on Climate Change, *The Future Oceans: Warming Up, Rising High, Turning Sour* (Berlin: German Advisory Council on Global Change, 2006, pp. 46,50.

³³ Intergovernmental Panel on Climate Change, *IPCC Technical Paper IV, Section 5, Analyzing regional aspects of climate change and water resources*, 2008, p.110.

³⁴ Munich Re Group, *Megacities – Megarisks: Trends and challenges for Insurance and Risk Management*, Munchen, 2004, pp. 41, 76.

³⁵ Cruz R V, Harasawa H, Lal M, Wu S, Anokhin Y, Punsalmaa B, Honda Y, Jafari M, Li C and Huu Ninh N. 2007. *Asia. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Parry M L, Canziani O F, Palutikof J P, van der Linden P J and Hanson C E (eds), Cambridge University Press. Cambridge, UK, pp. 469 – 506.

³⁶ IPCC, *Fourth Assessment Report: Climate Change 2007*, p. 484.

increase the risk of flooding during the wet season, and reduce dry-season water supplies to one-sixth of the world's population, predominantly in the Indian sub-continent and parts of China.³⁷

Africa is another target of climate induced migration, because while Asia is submerging, low and mid-latitudes are imposed to other extremes. North Africa and the Sahel, the horn of Africa and South Africa are extremely vulnerable to drought. Fourteen African countries experience water scarcity at present, and there are prognoses this number will increase to 25 countries by 2030.³⁸ Changing patterns of rainfall place the food security in sub-Saharan Africa under a serious danger. According to the IPCC reduced rainfall could lower crop yields by as much as 20 percent by 2020, which will lead to increasing malnutrition.³⁹

Besides the alarming prognoses for the future, there is some evidence that climate change already causes population movement. According to the IMO the “gradual and sudden environmental changes are already resulting in substantial population movements” and in 2008, “20 million persons were displaced by extreme weather events, compared to 4.6 million internally-displaced by conflicts and violence over the same period.”⁴⁰ For example, in 1995, half of Bhola Island in Bangladesh became permanently flooded, making half a million people homeless and forcing them to relocate.⁴¹ In 1999, two Kiribati's island: Tebua Tarawa and Abanuea, disappeared because of the sea-level rise.⁴² Other unprecedented evidence is the disappearance of the Lohachara Island in India's part of the Sundarbans, which was reported by Indian researchers in December 2006. In this case sea level rise left 10,000 people homeless.⁴³

1.3. Conclusion

It can be concluded that sea-level rise can be considered a push factor for migration with more confidence in comparison to other environmental phenomena. Yet, the skepticism with regard to

³⁷ Stern Nicholas, *The Economics of Climate Change: The Stern Review*, Cambridge University Press, Cambridge, 2006, p.56.

³⁸ Tearfund, *Fleeing the Heat*, Teddington, UK: Tearfund, 2006, p.12.

³⁹ IPCC, “Working group II contribution to the intergovernmental panel on climate change fourth assessment report climate change 2007: Climate change impacts, adaptation and vulnerability”, April 2007, p. 10.

⁴⁰ “Migration, Climate Change and Environmental Degradation: A Complex Nexus”, available at IOM website: <<http://www.iom.int/jahia/Jahia/complex-nexus>>.

⁴¹ Emily Wax, *In Flood-Prone Bangladesh, a Future That Floats*, Washington Post, September 27, 2007, available at: <http://www.washingtonpost.com/wp-dyn/content/article/2007/09/26/AR2007092602582.html>.

⁴² Sci/Tech Islands disappear under rising seas, BBC News, Monday, June 14, 1999 Published at 18:13 GMT 19:13 UK, available at: <http://news.bbc.co.uk/2/hi/science/nature/368892.stm>.

⁴³ *Disappearing World: Global Warming Claims Tropical Island*, The Independent, December 24, 2006, available at: <http://www.independent.co.uk/environment/climate-change/disappearing-world-globalwarming-claims-tropical-island-429764.html>.

floods, draughts and other extreme weather events seems to be premature. Even though some scholars and researchers claim that in these cases the relocation will mostly be internal and short-distance it does not lead to the conclusion that this displacement is not provoked by climate change. All above stated risks and changes eventually will make certain parts of the world unapt for living, by causing food and water supplies to become more unreliable, increasing the frequency and severity of floods and storms and through erosion and inundation of coastal areas. These will force people to search for new places that can provide them with means of living, perhaps first internally and externally afterwards. Given the urgency of the problem and existing prognoses of the top science bodies and the UN agencies, the debates on whether climate change is a direct driver of population movement, or the contra arguments that such displacement will be indirect and multifaceted, do not seem to be appropriate. Directly or indirectly, climate change will create massive displacement and put global and regional stability at risk. What deserves particular attention is that displacement of people is associated with significant deprivation of widest range of their human rights and freedoms. Among the most obvious challenges for displaced people are the loss of home, income, and security, the difficulty to adapt to new environment and to get sufficient financial support and assistance from the host States, and the risks of conflicts over the reduced availability of sources. Therefore, these people require attention and protection, and need to be placed on the legal and political agenda. Yet, the question on which legal framework can be applied to people displaced by climate change remains unclear. Among the most accepted and supported approaches are the attempts to fit people induced to displacement by climate change into the refugee law, international environmental law, and human right law. As the current thesis focuses on the extent to which international environmental law is a suitable fit for tackling the problem, the detailed analysis of the limitations and opportunities of international environmental legal regime will follow.

2. International environmental law as way to approach the issue

International environmental law lays down general responsibility of the states for environmental damages and deals specifically with the issue of climate change. The obligations under international environmental law in general arise from either treaty law or customary international law. Yet, the question of responsibility under international environmental law, especially in the context of climate change related effects, is a very controversial issue. There are ongoing debates whether responsibility towards the people induced for displacement by climate change can be based on the rules and principles of international environmental law.

2.1. International customary law

One of the fundamental rules of international customary law is that every state shall be held responsible for transboundary environmental harm.⁴⁴ This principle is well established and was expressed already in 1941 in the conclusions of *Trail Smelter* case:

'no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence'.⁴⁵

In environmental law, this rule is reflected in the “no-harm rule”, which is one of its’ foundational and widely recognized principles laid down in Principle 21 of the 1972 Stockholm Declaration and in Principle 2 of its successor, the 1992 Rio Declaration. Especially after the ICJ’s 1996 Advisory Opinion on *The Legality of the Threat or Use of Nuclear Weapons* there can be no doubt that these provisions reflect a rule of international customary law.⁴⁶ Both Declarations establish the sovereign right of States to exploit natural resources, and their

⁴⁴ Trail Smelter Arbitration, United States v. Canada, 1938–1941, Reports of International Arbitral Awards (RIAA) III, p. 1905, 33 American Journal of International Law (AJIL) p.132.

⁴⁵ Trail Smelter Arbitration, United States v. Canada, 1938–1941, Reports of International Arbitral Awards (RIAA) III, p. 1905, 33 American Journal of International Law (AJIL) p.132.

⁴⁶ Philippe Sands QC, Principles of International Environmental Law, Cambridge University Press, 2003, p. 241.

respective responsibility to ensure that the activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond national jurisdiction.⁴⁷

When a rule of customary international law, such as the “no-harm rule”, has been breached, States can be held responsible for the damages. To bring forth such a responsibility the following components have to be determined: (a) a wrongful act attributable to a state; (b) a causal link between the activity and damage; (c) a violation of either international law or a violation of a duty of care, which is (d) owed to the damaged state.⁴⁸ Yet, in case of responsibility for climate change, particularly in case of responsibility towards people displaced by climate change, establishment of those factors is highly challenging.

Even if the damaging activity causing climate change can be attributed to a particular state (for example top emitters of greenhouse gases (GHG), the question of causation is more likely to stay an insuperable obstacle. In this context, it is important to distinguish between general and specific causation. The first one concerns the general link between the amount of anthropogenic emissions of greenhouse gases and climate change damages. This type of causation has a universal scientific support and confirmed by a number of IPCC reports.⁴⁹ Whereas, a specific causation requires cogent evidences that a specific activity has caused a specific type of damage.⁵⁰ Legally speaking, it seems problematic to establish that a particular State has caused damage to a particular individual or group of individuals by virtue of its greenhouse gas emissions.⁵¹ All states to some extent have contributed to climate change by their emissions. To determine that an emission of a particular state has caused a particular climate related effect – which results in a population movement, will be impossible.

Among other reasons, which hamper the establishment of causation in that case, are the spatial and temporal factors. Firstly, states that have caused the harm are more likely to be geographically remote from those who will have to suffer. Namely, according to some scientific

⁴⁷ Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration) UN Doc. A/CONF/48/14/Rev.1 (16 June 1972), principle 21; Declaration of the United Nations Conference on the Human Environment (Rio Declaration) UN Doc. A/CONF/151/26/Rev.1 (1992), principle 2.

⁴⁸ Richard S.J. Tol, Roda Verheyen, State responsibility and compensation for climate change damages—a legal and economic assessment, *Energy Policy* 32 (2004) p. 1111.

⁴⁹ For example IPCC, Fourth Assessment Report, 2007.

⁵⁰ Richard S.J. Tol, Roda Verheyen, State responsibility and compensation for climate change damages—a legal and economic assessment, *Energy Policy* 32 (2004) p.1112.

⁵¹ Jane McAdam, *Environmental Migration Governance*, UNSW Law Research Paper No. 2009-1, 2009, p.21.

projections one of the effects of global warming may be the shift of southern hemisphere cyclone belt to the south. If these prognoses come true the number of cyclones will increase enormously in Oceania, which will mean a great destructions and death. However, the causes of such dreadful effects will be geographically diffuse, as millions of people from the different parts of the world have contributed into the climate change. Moreover, people who are harmed will be remote in time from those who have harmed them. Certain Pacific islands, such as Kiribati and Tuvalu can be wiped off the face of the Earth in twenty-first century, because of people's behavior during the nineteenth and twentieth century.⁵²

Another principle of international law which might be relevant for the protection of people induced for displacement by climate change is the "*polluter pays principle*". This principle provides that

"[N]ational authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interests and, without distorting international trade and investment."⁵³

This principle has a great relevance for people induced for displacement by climate change and seems to be just. Developed countries have contributed the most into the global warming. However, due to their geographical location and their poor adaptation capacity, developing countries are going to suffer most of its consequences. The fact that developing countries are not blameworthy for climate change and usually have a limited capacity to deal with the problem, makes the financial assistance from those who have caused the problem - a logical and fair obligation. In fact, already in 2010 at the COP16 in Cancun it was decided to establish a Green Climate Fund, as an operating entity of the financial mechanism of the UNFCCC.⁵⁴ The main objective of the Fund is to promote the achievement of the UNFCCC's goals. This contribution should be done through "providing support to developing countries to limit or reduce their greenhouse gas emissions and to adapt to the impacts of climate change,

⁵² Dale Jamieson, *Ethics, Public Policy and Global Warming*, Climate Ethics: Essential Readings, 2010, p.84.

⁵³ Declaration of the United Nations Conference on the Human Environment (Rio Declaration) UN Doc. A/CONF/151/26/Rev.1 (1992), Principle 16.

⁵⁴ Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, FCCC/CP/2010/7/Add.1, par.102.

taking into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change.”⁵⁵

Nevertheless, the polluter pays principle has not received a lot of support and attention among states and in case law. Its legal content remains unclear and it is very doubtful that this principle has achieved the status of a generally applicable rule of customary international law except perhaps in relation to states in the EU, the UNECE and the OECD.⁵⁶

Overall, it can be concluded that international customary law does not provide a sufficient ground for dealing with people induced for displacement by climate change. Even though, “no harm rule” and “polluter pays principle” prima facie seem to be relevant, virtually their application is hampered. With regard to the first rule, the issue of causation does not allow to establish the respective responsibility. In case with the “polluter pays principle”, the legal status of this principle raises a lot of doubts. There is no case law as yet within international customary law. Furthermore, international customary law does not have any provisions on mitigation and adaptation to climate change, while these actions are crucial for people induced for displacement by climate change.

2.2. International environmental treaty law

In international environmental law treaties play a much bigger role. The United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol⁵⁷ set up rules, which are better defined, and provide for much more differentiated obligations regarding implementation control and enforcement of environmental rules and standards.⁵⁸

The UNFCCC, entered into force in 1994, is the main international instrument that deals with the issue of climate change. The main goal of the Convention, as stated in the Article 2 is

‘stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved

⁵⁵ Report of the Transitional Committee for the Design of the Green Climate Fund to the seventeenth session of the Conference of the Parties, Transitional Committee, Fourth meeting 18 October 2011, TC-4/3.

⁵⁶ Philippe Sands QC, Principles of International Environmental Law, Cambridge University Press, 2003, p.280.

⁵⁷ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994 and Kyoto Protocol to the UNFCCC opened for signature 16 March 1998, 37 ILM 22.

⁵⁸ Richard S.J. Tol, Roda Verheyen, State responsibility and compensation for climate change damages—a legal and economic assessment, Energy Policy 32 (2004) p.1114.

*within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner’.*⁵⁹

Among the UNFCCC principles, which can be relevant to climate induced displacement, are: the requirement for the developed country parties to take a lead in the protection of the climate system for the benefit of present and future generations, on the basis of equity and, in accordance with common but differentiated responsibilities and respective capabilities.⁶⁰ Another essential provision of the UNFCCC is that the specific needs of developing country Parties, especially those particularly vulnerable to the adverse effects of climate change, and those that would have to bear a disproportionate burden under the UNFCCC, should be given full consideration⁶¹ Furthermore, the parties required to take precautionary measures to prevent or minimize the causes of climate change and mitigate its adverse effects. This principle also lies down that the ‘lack of full scientific certainty should not be used as a reason for postponing precautionary measures’ where there are threats of serious or irreversible damage.⁶²

With regard to climate change mitigation and adaptation, the Kyoto Protocol and the UNFCCC contain a number of more specific provisions, which potentially can be relevant for the people induced for displacement by climate change. First of all, Article 4.1.(b) UNFCCC obliges all Parties to

“formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change ... and measures to facilitate adequate adaptation to climate change”.⁶³

This provision makes it clear that adaptation is not a provisional obligation, but rather a binding rule for the Parties. Further, the UNFCCC requires all the developed countries (Annex II countries) to assist the developing countries in meeting the costs of adaptation to the effects of climate change.⁶⁴ Thirdly, the Kyoto Protocol establishes the Adaptation Fund that aims to

⁵⁹ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 2.

⁶⁰ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 3.1.

⁶¹ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 3.2.

⁶² UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 3.3.

⁶³ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 4.1.(b).

⁶⁴ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 4.3., 4.4.

finance concrete adaptation projects and programmes in developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change. The Fund is financed from the revenues from operation of the Clean Development Mechanism (CDM) and other sources of funding.⁶⁵

However, if we analyze the wording of the UNFCCC, it becomes clear that it only foresees partial funding of adaptation measures by Annex II countries. The way, in which Article 4.4 is formulated, namely the use of the term “assist”⁶⁶, makes it clear that there is no strict obligation for Annex II countries to bear the full costs of adaptation in all developing countries.⁶⁷ With regard to the responsibility for breaching the obligations of the UNFCCC and the Kyoto Protocol, there are also no clear grounds for bringing such a claim. Article 2 of the UNFCCC only establishes the objective of preventing any damages to the climate system, but does not prohibit the GHG emissions as such.⁶⁸ As to the Kyoto protocol, it also does not tackle the issue of damages, even though it sets legally binding targets. The Protocol presents in Article 2 the list of requirements, which parties should oblige to in order to reach reduction targets. However, the way to implement the policies stays largely at the States’ discretion, and can be implemented in accordance with national circumstances. Therefore, while the European Union had chosen for more fixed and mandatory regulations, other states, such as Canada, Australia, and some other Annex I parties, have left themselves some space for deviation.⁶⁹ The policies and measures prescribed for in Article 2 cannot be considered as being mandatory and thus, establishing respective responsibility does not seem feasible.

Implicitly, the issue of climate induced migration was first mentioned in the UNFCCC assembly text in December 2008.⁷⁰ Since then, there were heated discussions and a lot of research on the problem, which ultimately resulted in the Cancun Agreement, the outcome of the 2010 Conference on Climate Change in Cancun (COP16). The Agreement

⁶⁵ http://unfccc.int/cooperation_and_support/financial_mechanism/adaptation_fund/items/3659.php.

⁶⁶ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 4.4.

⁶⁷ Richard S.J. Tol, Roda Verheyen, State responsibility and compensation for climate change damages—a legal and economic assessment, *Energy Policy* 32 (2004), p. 1115.

⁶⁸ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 2.

⁶⁹ Richardson, Benjamin J., *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, *New Zealand Journal of Environmental Law*, Vol. 2, 1998: p. 253.

⁷⁰ *Climate Change Induced Displacement: Adaptation Policy in the Context of the UNFCCC Climate Negotiation*, Legal and Protection Policy Research Series, Division of International Protection, UNHCR, 2011, p.4.

“invites all Parties to enhance action on adaptation ... by undertaking... measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at national, regional and international levels”⁷¹

COP16 also created an Adaptation Committee and an Subsidiary Body for Implementation (SBI) work program on loss and damage where the issue of longer term foreseeable impacts such as sea level rise and desertification could have implications for society, and established a new Green Climate Fund.⁷²

Even though the issue of climate induced displacement was introduced to the UNFCCC agenda, the answer to the question whether the UNFCCC can be used for effective protection of people at risk of climate induced displacement is still not positive. Despite the shown fact, that the UNFCCC recognizes the specific needs of developing countries, and the principle of ‘common but differentiated responsibilities and respective capabilities’ is a continuing theme throughout the UNFCCC, which requires developed state parties to “take the lead in combating climate change and the adverse effects thereof”⁷³ When it comes to actual responsibility for damaging activities and especially responsibility towards the people induced for displacement by climate change, it appears too difficult to identify specific State obligations under the UNFCCC. The main reason for that lies in the fact that the UNFCCC sets up mainly common goals, shared principles and general interests of international community and leaves the States a lot of room for maneuver. It does not explicitly provide for specific State obligations and does not resolve the issue of state responsibility neither for adaptation, nor for damages. Another reason is that the Convention does not address the issue of climate induced displacement directly. Both, the UNFCCC and the Kyoto Protocol are silent about this problem and do not include any provisions concerning specific assistance or protection for those who will be directly affected by the effects of climate change.⁷⁴

⁷¹ Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, FCCC/CP/2010/7/Add.1.

⁷² Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, FCCC/CP/2010/7/Add.1.

⁷³ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 3.1.

⁷⁴ Climate Change, Migration and Displacement: Who will be affected? Working paper submitted by the informal group on Migration/ Displacement and Climate Change of the IASC - 31 October 2008.

2.3. Conclusion

Ultimately it can be concluded that at the current stage the environmental law approach has too many limitations in addressing the issue of climate induced displacement, and cannot be used as an effective tool for the protection of people induced for displacement by climate change. Neither international customary law, nor the provisions of the UNFCCC and the Kyoto Protocol contain any specific provisions on climate induced displacement or responsibilities towards its victims. Even though the 2010 COP16 made a positive contribution towards the recognition of the issue by the international community, in order to make an actual improvement, further modifications of environmental legal regime are required.

3. Considerations for improvements

As the previous section has shown, neither customary international law, nor the provisions of the UNFCCC and the Kyoto Protocol contain any concrete rules that can be directly applied for the assistance and protection of people displaced by climate change. At the same time, the research has revealed certain positive features and initiatives towards the recognition of the climate-induced displacement issue within the international environmental legal framework. Therefore, a number of scholars argue that the problem can be tackled through the amendment of the environmental legal framework with a separate protocol, which will focus specifically on the issue of climate-induced displacement. The supporters of this approach have different ideas on how such modifications can be made. The careful investigation of the literature allows to highlight several proposals that seem to be the most adequate and feasible.

3.1. Biermann and Boas's Proposal

Biermann and Boas suggest a *Protocol on Recognition, Protection and Resettlement of Climate Refugees* to the UNFCCC⁷⁵ as a solution to the problem. Authors claim that the vast political support of the countries which are parties to the UNFCCC will lay down a great basis for such an amendment. Furthermore, as the new Protocol, in their opinion, should be drawn upon the widely agreed principles, such as common but differentiated responsibilities and the reimbursement of full incremental costs, the developing countries will have a strong motivation to ratify the Protocol as it will allow them to get international assistance and protection in dealing with the swiftly emerging issue.

The Protocol itself, according to *Biermann and Boas* should be based on the set of core principles, which will reflect upon the specific legal, political, and ethical problems of climate-induced displacement. Among these principles is the *principle of planned relocation and resettlement*. This approach is favorable over emergency response or disaster relief, as it provides an opportunity to reduce the conflicts and associated difficulties. The promotion of this principle requires the search for the better strategies to predict impacts of climate change and for the ways to respond more timely. Furthermore, it calls for an establishment of resettlement

⁷⁵ Frank Biermann and Ingrid Boas, Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees, Global Governance Project, Global Governance Working Paper No. 33, 2007, p. 25.

programs, which would be planned differently than the programs on emergency response and disaster relief.⁷⁶

The second is the *principle of resettlement*. As it has been observed, a large number of climate refugees will not be able to return to their home countries. Therefore, instead of temporary asylum they should be granted permanent rights in the countries that accept them.⁷⁷

The third suggested by *Biermann and Boas* principle is the *principle of collective rights for local population*. Migration due to climate change is a collective phenomenon, because climate refugees are likely to relocate in large numbers (for example entire villages or provinces). However, the wording of the Refugee Convention is based on individual persecution. Thus, it is crucial to recognize collectives of people, such as the population of a city or region.⁷⁸

The next principle is the *principle of international assistance for domestic measures*, which stands to strengthen international help, and funding of governments and local communities, to protect people within their own territory.⁷⁹ This principle is especially important when it comes to developing countries. As has been noted before, in general there is an existing legal responsibility of the states to protect their citizens. Yet, as counties most severely affected by climate change are developing, they usually lack the sources to do that.

The last important principle is the *principle of international burden-sharing*. The new regime should be based on the principle of common but differentiated responsibilities and respective capabilities. This principle suggests that industrialized countries have contributed the most to current climate change: they have to bear most of the costs for the protection of climate refugees. Other features of the principle of international burden-sharing are “the principle of reimbursement of full incremental costs of affected countries occurred through resettlement of climate refugees; and the principle of double-weighted decision-making procedures, which

⁷⁶ Frank Biermann and Ingrid Boas, Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees, Global Governance Project, Global Governance Working Paper No. 33, 2007, p.25.

⁷⁷ Ibid, p.25.

⁷⁸ Ibid. p.26.

⁷⁹ Ibid, p.26.

would give developing countries a structurally larger clout in a new institution on climate refugees”.⁸⁰

In addition to suggesting the foundational principles for a new Protocol, *Biermann and Boas* propose the way it can operate. Namely, they recommend establishment of the executive committee that will eventually coordinate the implementation of the Protocol. This committee, according to authors, will function under the authority of the COP. Subsequently, the executive committee will maintain a list of the areas in which the populations are ‘in need of relocation due to climate change’.⁸¹ Only those States which are parties to the Protocol will be able to propose the areas under its jurisdiction to be included into the list of affected areas. Respectively, only they will be able to receive the assistance from various supportive programs, such as financial support, international support in resettlement and assistance with relocation. With regard to that, the issue of financing will be resolved through a separate fund, based on the grant basis. The underlying principle for funding will be the principle of reimbursement of full incremental costs. In cases when the causal link between climate change and migration is unchallengeable (for example sea-level rise). In cases where climate change is only one of the factors causing environmental degradation (such as water scarcity), funding will be based on principle of additional funding.⁸²

2. Williams’ Proposal

Another interesting proposal within the UNFCCC was presented by *Williams*. She suggests the creation of regional agreement, operating under the international umbrella that will deal with the issue of climate induced displacement.⁸³ In support for the UNFCCC as a suitable framework for a new Protocol, *Williams* refers to the complicated nature of climate change and the way it brings together the environmental, social and political factors. Therefore, dealing with the problem of climate-induced displacement first requires establishment of the responsibility for climate change and acceptance of this responsibility by certain States. Amendment of the UNFCCC seems to be successful solution to this double goal. Article 4(1)(b) already establishes

⁸⁰ Frank Biermann and Ingrid Boas, Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees, Global Governance Project, Global Governance Working Paper No. 33, 2007, p.26.

⁸¹ Ibid, p. 27.

⁸² Ibid, p.27.

⁸³ Angela Williams, Turning the Tide: Recognizing Climate Change Refugees in International Law, Law & Policy, Vol. 30, No. 4, October 2008.

the state's commitment to formulate and implement regional adaptation measures.⁸⁴ Same goes with regard to Article 19(b) of the Kyoto Protocol that states that all the parties shall agree to: "formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to facilitate adequate adaptation to climate change". Ultimately, these provisions, in *Williams*' opinion, constitute a sufficient foundation for development of a post-Kyoto agreement, which will be focused on the protection and assistance of people displaced by climate change.

According to *Williams*, post-Kyoto agreements should recognize the fact that regional initiatives are favored over international agreement as they help to respond more clearly and directly to the problem of climate-induced displacement.⁸⁵ Specifically, the post-Kyoto agreement should include the following features: first of all, it should recognize the link between climate change and migration, and thus admit the existence of resulting problems. Secondly, it should encourage regional cooperation in respect to the problem of climate displacement. If, currently, the UNFCCC and the Kyoto Protocol contain the requirements for states only with regard to adaptation, the new protocol should lay down requirements concerning climate change displacement. Finally, besides the binding agreement, a role should be given to the non-binding instruments. Such as, suggested by *Williams*, a Memorandum of Understanding or Plan of Action, which are going to promote discussion among the states over the strategies and techniques for implementing regional initiatives.⁸⁶

3.3. Gogarty's Proposal

Another proposal that seems interesting, and deserves to be mentioned, is the one of *Gogarty*. To a large extent his recommendations are inspired by the *Williams*' proposal, as he accepts the regional approach to be an important element of a new regime.⁸⁷ Yet, *Gogarty* goes further and provides additional argumentation and more concrete suggestions on how the Protocol could look like.

⁸⁴ UNFCCC (09.05.1992) 1771 UNTS 107, entry into force 21.03.1994, art. 4.1.b.

⁸⁵ Angela Williams, *Turning the Tide: Recognizing Climate Change Refugees in International Law*, Law & Policy, Vol. 30, No. 4, October 2008, p.520.

⁸⁶ *Ibid*, p.520.

⁸⁷ Brendan Gogarty, *Climate-Change Displacement: Current Legal Solutions to Future Global Problems* (November 1, 2011). *Journal of Law, Information & Science*, Vol. 21, No.1, 2011, p.19.

To justify his approach, *Gogarty*, first, explains the reason why the UNFCCC is the best fit for an instrument on climate-induced displacement. Among the arguments are the fact that the UNFCCC framework is already in existence, and that it takes into account the divergence between the developed and developing countries, as it lays down the redistribution of financial resources, technical knowledge and logistical support.⁸⁸ Furthermore, he indicates the wide range of institutions and various specialist bodies that are already involved in the work under the UNFCCC. Such institutions as the IPCC, the Global Environmental Facility Technology Executive Committee and the Least Developed Countries Expert Group have significantly contributed in providing the data and assessing the risks for people induced to displacement by climate change. Numerous UN agencies are also involved in the work under the UNFCCC. The UNHCR, the International Organization for Migration (IOM), the UN Office for the Coordination of Humanitarian Affairs (UN-OCHA) have been extremely active during the meeting and work of the COP 16. Therefore, *Gogarty* claims that the existing framework is a good foundation to continue the work in the direction of creating a new framework on migration and displacement.⁸⁹

Gogarty, more specifically suggests that the new coordinating body, focusing particularly on the issue of migration and displacement, should be established under the UNFCCC. Next, he emphasizes the importance of the National Adaptation Plans, which will provide funding, assistance and other relevant support to affected countries. At the same time the role of supporting organizations, NGOs and UN bodies, should not be depreciated, as their contribution is essential for the successful functioning of the amended instrument. Another important feature, according to *Gogarty*, is that the new instrument will fill the gaps with regard to the slow-onset impacts of climate change and will affirm state responsibility in cases of sudden onset disasters. The new regime for people displaced by climate change could be based on a new COP Agreement, which would be created under the UNFCCC. Another possibility that *Gogarty* considers feasible is proposed by *Williams* set of regional agreement, which would be based on the regional protocol to the UNFCCC. With regard to that, the states, particularly the developing

⁸⁸ Brendan Gogarty,, Climate-Change Displacement: Current Legal Solutions to Future Global Problems (November 1, 2011). *Journal of Law, Information & Science*, Vol. 21, No. 1, 2011, p.18.

⁸⁹ *Ibid*, p.19-20.

states, should be permitted and encouraged to enter into the regional protocols to be able to manage jointly the issue of climate-induced displacement and to share the burden of it.⁹⁰

3.4. Comparative analysis and conclusion

The above analyzed proposals support the claim that the extension of the environmental legal regime is a feasible and effective way to tackle the issue of climate-induced displacement. More specifically, they show us different models of how such an amendment could look like. These attempts are a significant contribution to the debates on the possible solutions to the problem. At the same time, they present a strong opposition to other approaches to tackling the issue, namely, the proposals of creating the new convention that will focus specifically on the issue of climate-induced displacement. As the authors of the investigated proposals argue, the solution within the environmental legal regime is more advantageous in comparison to creation of a new instrument. First of all, the UNFCCC already enjoys the extensive support of the member states, and a lot of developing countries affected by climate change, such as Bangladesh and India, are currently among its parties. Secondly, the institutional regime under the UNFCCC is already established, functions, and there is even an international arena, such as the COP, where this proposal can be introduced and discussed. On the contrary, the creation of a new convention is a time-consuming and complex process. It requires bringing together a large number of components, such as the political willingness from states, creating relevant institutions, finding solutions for funding, etc. Therefore, taking into account the urgency of the problem, the amendment of the existing legal regime seems to be a more feasible and effective way.

Between the analyzed proposals (*Biermann and Boas*, *Williams and Gogarty*) it might not be possible to single out the one that can provide an absolute solution to the problem. This, perhaps, is not even a feasible thing to do as there are multiple factors influencing the success of any legal instrument that go beyond its content. Yet, certain elements of the scrutinized solutions seem to have a great potential and can lay down a strong foundation for the future protocol.

Besides the set of the core principles that *Biermann and Boas* suggest to be the core of the future instrument, authors make an important practical suggestion. They promote the idea to maintain a list of areas in which the populations are ‘in need of relocation due to the climatic

⁹⁰ Brendan Gogarty,, Climate-Change Displacement: Current Legal Solutions to Future Global Problems (November 1, 2011). *Journal of Law, Information & Science*, Vol. 21, No. 1, 2011, p.20.

reasons'.⁹¹ First of all, this list can, to a certain extent, resolve the issue of causality, as the protection will be granted on the account of territorial belonging. Therefore, it will not be necessary to establish the causation link in each individual case and will make the protection of the affected people much more accessible. Secondly, it will motivate the countries to join the Protocol as the protection and assistance will only be available to those who are parties to the Protocol.

The proposal of *Williams* greatly differs from that of *Biermann and Boas* as she believes that regional initiatives should be favored over the international agreement. Therefore, *Williams* suggests the creation of a regional agreement that would operate under the international umbrella. She claims that the initiatives on the regional level allow to respond to the problem of climate-induced displacement more clearly and directly. Yet, *Williams*' proposal raises several concerns. First of all, as it has been emphasized earlier, climate change will mainly affect those developing countries and regions where the adaptive capacities are very low. Taking this into account, it can be assumed that without assistance and support of the international community, it will be very hard, if not impossible, to tackle the problem only through the sources available at the regional level. Secondly, the *Williams*' claim that the link between climate change and migration should be directly recognized in the Protocol seems to be prompt and unfeasible. To large extent, the issue of causality greatly depends on other discipline such as natural science and therefore cannot be decided only at the legal level. With regard to that the establishment of the list of affected areas that *Biermann and Boas* make in their proposal appears to be more weighted and reasonable. If take these considerations into account, then the *Biermann and Boas*' proposition to establish the list of affected areas, appears to be more weighed and reasonable.

The proposal of *Gogarty* that was analyzed the last, seems to draw upon two previous proposals. It integrates the principles suggested by *Biermann and Boas* and sets up the list of the important points that the future protocol should take into account. At the same time, as one of the suggestions, *Gogarty* emphasizes the importance to promote the cooperation between states and to motivate them to enter regional agreements in line with *Williams*' recommendations. Therefore, the proposal of *Gogarty* cannot be considered as a principally innovative one. Yet, it is still a valuable contribution to the debates and another important conformation that the

⁹¹ Frank Biermann and Ingrid Boas, Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees, Global Governance Project, Global Governance Working Paper No. 33, 2007, pg. 27.

extension of the international environmental legal regime has a strong potential in dealing with the problem of climate-induced displacement.

Conclusion

Climate change and climate change-related events have a horrific impact not only on the environment, but also on human inhabitants. The number of natural catastrophes increases as swiftly as the number of people who are obliged to relocate because of them. Should the existing prognoses come true, we can expect between 50 million and 350 million climate migrants by 2050. There are ongoing debates on the legal framework that can be applied to people induced to displacement for climatic reasons, can offer them protection and allocate the respective responsibilities. Yet, there is no agreement with regard to that. In this thesis one of the possible approaches to the problem was analyzed, namely, the limitations and opportunities of the international environmental law in dealing with the issue of climate-induced displacement.

The undertaken analysis allows us to draw the following conclusions:

First of all, as it has been shown, the nature of the relationship between climate change and population movement is considered to be highly controversial. This results in numerous associated problems, such as the difficulty to conceptualize people displaced by climate change and to grant them a legal status. Nevertheless, the numerous prognoses made by the top scientific bodies and the UN agencies, together with the analysis of the concrete impacts of climate change on the certain regions show that there is enough evidence of that some areas will become completely unsuitable for living because of changing climate. This will leave people no other choice than to relocate. Directly or indirectly, climate change will spur large-scale population displacement threatening regional and global stability. Therefore, it has been argued that instead of getting bogged down in theoretical disputes, policy-makers, politicians and scholars should set the priority on the search for the ways to regulate the issue and protect people induced to displacement.

In that light, current thesis considered the potential of international environmental law to deal with the issue of induced displacement. International environmental law appears to be relevant to the issue of climate-induced displacement as it lays down the responsibility of states for environmental damages and deals specifically with the issue of mitigation and adaptation to climate change. Nevertheless, the current analysis has shown that neither customary international law, nor the provisions of the UNFCCC and the Kyoto Protocol contain no concrete rules that

can help to protect people displaced by climate change. At the same time, the research has revealed certain positive features and initiatives towards the recognition of the issue of climate-induced displacement within international environmental legal framework and its potential to become a foundation for a new instrument which will focus on the issue of climate induced displacement. Therefore, current thesis has investigated a number of proposals made by scholars on the possible modifications of the environmental legal framework which can help to grant protection to people displaced by climate change.

Three proposals have been investigated for their feasibility to improve the current state of the environmental legal framework. The comparative analysis of these proposals has revealed that there is a strong potential in the environmental law approach and that it is, to a great extent, preferable to the idea of creation of a new instrument. Furthermore, the analysis of the three proposals allowed to extract certain important elements which could be included in the future separate protocol, should this solution be selected.

Yet, it has to be mentioned that it seems impossible to draw any ultimate conclusion at this moment. The issue of population's displacement as a response to climate change is still associated with numerous uncertainties and remains debatable among scholars and politicians. Way to define and conceptualize this group of people remains unclear. There are other possible approaches to the issue of climate induced displacement, such as refugee law, human rights law and humanitarian law. Therefore, further research on the issue is essential.

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