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# Climate Change and Environmental Migration

## The Danger of the Status Quo

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## Abstract

Climate change and the environmental migration phenomenon reside in a dangerous international legal protection gap – a status quo unwilling to change. Climate change and environmental migration are linked with multiple security threats, including those affecting national security, public security, communal security and human security, and impact the political and social order, culture, life and personal integrity. The current international legal framework of refugeehood and international human rights law is inadequate to respond to such threats because it is unable to grasp environmental conditions as primary motivators for migration, particularly in cases of slow-onset changes. Shortsightedly, the reasons for migration are more often linked with economic justifications, as the effects of the slow environmental changes are more difficult to distinguish. The purpose of this thesis is to map the under-researched threats associated with climate change and its linkages to environmental migration in cases of slow-onset changes, leading to permanent or semi-permanent external displacement. This connection between migration and climate change is established through the examination of three different cases, being the Pacific Islands and the rising ocean, the shrinking of Lake Chad, and the melting glaciers of the Himalayas. Additionally, the security threats associated with such events are identified and explored with the assertion that environmental migration and the related, but inadequately equipped, international framework exacerbate security threats. Finally, possible avenues from which to mitigate these problems are examined.

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## Introduction

Climate change and its influence as a human movement motivator is an under explored danger to various facets of security issues; exacerbated by the international community's content-ness with a status quo that all but ignores the topic. As our world's climate continues to change, environmental conditions and systems that have been enjoyed by peoples for centuries alter. Throughout earth's history, the movement of species, not just our own, has been forced as a result of these changing conditions. An easy example of this is in events such as during the ice age, a species' ability to adapt to the new system directly correlates to the likelihood of its survival. The international response to climate change and associated environmental migration represents a dangerous status quo of unequipped political attitudes and legal frameworks. However, unlike the advances in sciences, such as renewable energy sources, to mitigate the damage of human induced climate change, the social, political and legal spheres are lethargic if not simply reluctant in their adaptation to the new status. Climate change is already at the stage of impacting people and community's survival and welfare, and there are many examples of this. The collective authors of 'Climate Refugees' examine a variety of areas and people already being impacted by the affected of climate change, such as melting Himalayan glaciers, rising seas of the Pacific, and increasing desertification and droughts in central and Sub-Saharan Africa.<sup>1</sup> The threat to these people is not superficially only to their buildings, their houses, or to their economy but something much deeper. Climate change threatens lives, homes, cultures and stability. For many, especially those who face the harshest of changes and conditions in the poorest regions, there will be little choice but to migrate and find new homes. However, the support and recognition of these people's plight is sparse, and often restrictive especially from the international community. The legal approach of the international community operates largely out of system of predetermined definitions and categories; definitions and categories that environmental migrants do not comfortably fit into.<sup>2</sup> This issue, with a particular focus on the Refugee Convention and International Human Rights Law, will be explored in its own chapter in order to establish the primary limitation of the international community in protecting and assisting environmental migrants. Environmental migrants represent people reacting to an even wider array of conditions and events that have, or could potential displace them both temporarily and permanently, and either internally or cross-border. This is the

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<sup>1</sup> Collectif Argos, *Climate Refugees* (Cambridge, Mass.: MIT Press, 2010).

<sup>2</sup> International Organisation for Migration, IOM, *IOM Outlook on Migration, Environment and Climate Change*, 2014, Geneva: International Organisation for Migration, 21-22.

definition of environmental migrant as conveyed by the International Organisation for Migration (IOM), which will be further detailed in the below ‘definitions and terminology section.’<sup>3</sup> The topics of climate change and environmental migration cover a broad spectrum of circumstances, most of which are unable to operate under traditional definitions or protection and assistance mechanisms. Many academics and organisations in the field argue that though the dangers to environmental migrants, they do not fit into the already established migrant protection mechanisms such as the 1951 Refugee Convention.<sup>4</sup> Nor is there a consensus on who really are environmental migrants, what conditions can motivate them, how to offer them protection and support, or what risks they bear. This paper will primarily focus on the exploration of climate change as an independent migration motivation factor, and as something that results in environmental migrants – whom up to this point, fall between gaps in international protection mechanisms. Simultaneously, the dangers of and to environmental migrants in the current international migrant paradigm, will be highlighted. Further, the dominant focus group of this paper is external (or international) environmental migrants, motivated by slow-onset (defined below) environmental changes – with a particular focal interest on those permanently or semi-permanently displaced. Environmental migrants, and the situation causing them is not simply an environmental issue, with environmental consequences but a dire problem threatening individuals, community’s existence and the stability of sovereign nations.

Climate change and the associated environmental migration phenomenon represents a serious risk to internal and external security concerns. Impacting national, public, communal and human security issues affecting multiple facets of life such as political and social order, culture, life and personal integrity. As environmental conditions around the globe shift, the number of people that will be displaced both internally or externally will increase exponentially,<sup>5</sup> threatening to exacerbate existing problems in both the home and receiving state of migrants. While persons displaced internally because of such environmental conditions are recognised and guidance for their protection and assistance are outlined to some extent, such as through the Guiding Principles for the Protection of Internally Displaced

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<sup>3</sup> International Organisation for Migration, *IOM Outlook on Migration, Environment and Climate Change*, 21-22.

<sup>4</sup> *Ibid*, 27. See also: Jane McAdam, *Climate Change, Forced Migration and International Law* (New York: Oxford University Press, 2012).

<sup>5</sup> Colm Regan, “International Migration: Human Rights and Development Dimensions,” in *Migration in the Mediterranean: Human Rights, Security and Development Perspectives*, ed. Omar Grech and Monika Wohlfeld, (Malta: MEDAC, University of Malta, 2014), 157.

Persons, those who may be forced to cross national borders are not.<sup>6</sup> Representative of the external migration dilemma, is the fact that the Guiding Principles are not directly attributable – similar to the limiting factors of international human rights law. While the current numbers of international climate migrants are minimal, the potential growth in relation to international protection system available is unparalleled (estimates varying from 150million to 1billion environmental migrants.)<sup>7</sup> With likelihood of further growth and greater security concerns being exacerbated through various pre-existing issues such as state poverty, level of development, state stability (political and social), regional relations and state security. This danger could then manifest in a number of ways, for example human security, such as the threat to life (of both the displaced people or the receiving state nationals); as resources at the receiving location are stretched, groups may become violent as they vie for access.<sup>8</sup> Thus, threatening the internal security of nations if they are unable to provide for increased demands, or mitigate the danger of heightened human population concentrations.

While if the responsibilities to protect and relocate are left exclusively with neighbouring or home states to handle internally, there is a great risk that this will unequally impact the poorer nations of the world, and not place significant obligation on the rest of the world. As Jon Barnett and Michael Webber claim, environmental migration is almost exclusively a problem in developing countries.<sup>9</sup> The developed nations of the world (historically, those first to industrialise) combined are the greatest emitters of climate change causing CO<sub>2</sub> and are currently the least likely to be affected by the worst of its consequences.<sup>10</sup> While developing nations, who by and large contributed the least to fossil emission, are now faced with the problems created. The developing nations of the world should not be abandoned to handle the consequences of climate change while the perpetrators assist from a distance – the

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<sup>6</sup> Aurelie Lopez, “The Protection of Environmentally-Displaced Persons in International Law”, *Environmental Law* 37, no. 2 (2007): 369.

<sup>7</sup> Regan, “International Migration: Human Rights and Development Dimensions,” 157. See also: Frank Laczko and Christine Aghazarm, eds., *Migration, Environment and Climate Change: Assessing the Evidence* (Geneva: International Organisation for Migration, 2009) 5, 9.

<sup>8</sup> Robert A. McLemen, *Climate & Human Migration: Past Experiences, Future Challenges* (New York: Cambridge University Press, 2014), 213.

<sup>9</sup> Jon Barnett and Michael Webber, “Migration as Adaptation: Opportunities and Limits.” In *Climate Change and Displacement: Multidisciplinary Perspectives*, ed. Jane McAdam (Oxford and Portland, Oregon: Hart Publishing Ltd, 2010), 54-55.

<sup>10</sup> Johannes Friedrich and Thomas Damassa, “The History of Carbon Dioxide Emissions,” *World Resources Institute*. May 21, 2014, <http://www.wri.org/blog/2014/05/history-carbon-dioxide-emissions> (accessed June 10, 2018).

international legal and political status quo must adapt in order to take responsibility and assist those impacted by the problem.

To explore all of these issues, multiple case studies will be utilised. Environmental and climatic events effecting the Pacific Islands, the Lake Chad region and the mountainous Himalayan demonstrate the variety of conditions that are occurring that are likely to cause human migration, and also highlight a broad range of both developing and pre-existing security concerns. The Pacific Islands are among the forefront of regions effected by climate change, and inhabitants face arguably the harshest of consequences.<sup>11</sup> The Pacific Islands are an important first case, despite the relatively small populations involved; highlighting dire national, communal and human security risks associated with dramatic loss of habitability. The Pacific Islands example also acutely emphasises the separation between climate change contributor, and consequence – while simultaneously portraying the current role and attitude of the international community. The Lake Chad example explores the cascading effects of climatic changes. Portraying different national, public, communal and human security issues – of particular significance, is the effect climate change, and human migration has on population density, extremism and human health. Lastly, the Himalayan glacier melt case examines the wide reach of a single event – with the possibility of impacting close to 2 billion people, across multiple national, cultural, social and economic divides.<sup>12</sup> Demonstrating especially the long-term consequences of water source loss on national, human and communal security. In this regard, the Himalayan glacier example also showcases the highest risk to escalate into violence between states.

The final chapter of this paper aims to establish possible avenues for future development in this field in order to mitigate the risk, and protection and assist environmental migrants across all migration channels. International efforts such as the Nansen Conference,<sup>13</sup> and the Guiding Principles for the Protection of IDP's<sup>14</sup> are employed to demonstrates such avenues

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<sup>11</sup> John Campbell, "Climate-Induced Community Relocation in the Pacific: The Meaning and Importance of Land." In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 57-58.

<sup>12</sup> Aude Raux, "Nepal: Himalayas, lost horizons," in *Climate Refugees*, Collectif Argos, 317.

<sup>13</sup> Christian Gahre, Center for International Climate and Environmental Research – Oslo (CICERO), Norwegian Ministry of the Environment, Norwegian Ministry of Foreign Affairs, Norwegian Refugee Council, *The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century*, 2011, Oslo: Norwegian Refugee Council.

<sup>14</sup> Office for the Coordination of Humanitarian Affairs (OCHA), United Nations (UN), *Guiding Principles on Internal Displacement*, 2004, UNOCHA.

of development; and how such development would benefit environmental migrants in the three cases mentioned above.

### *Definitions and Terminology*

Researching in this field, it becomes clear that there is no consensus of terminology nor definition of the terminology being attributed to those displaced by environmental factors, instead there is a variety of terminology proposed or used without clarification across various articles and mediums. For this reason, the key terminology of this paper needs to now be defined to ensure consistency and clarity. Though many terms, such as climate refugee and climate migrant are used often in numerous articles and media, they are for all intents and purposes, inaccurate and potentially harmful.<sup>15</sup> Climate refugee in particular raises issues as the International Organisation for Migration (IOM) states, that it attributes environmental migrants with the characteristics of traditional refugees; and this threatens to detract from the severity of traditional refugee's circumstances, or worse risks the sanctity of the protection accompanying the term.<sup>16</sup> Renaud's alternate definition conveyed by Graeme Hugo is arguably the most comprehensive, and covers a range of different scenarios, based on what Hugo suggests is the amount of force to which they are subject.<sup>17</sup> Here, three levels are suggested:

- Environmentally motivated migrants,
- Environmentally forced and
- Environmental refugee.

Environmentally motivated migrants are those who choose to move whereby environmental factors are but a supplementary issue, and the choice to move is their own.<sup>18</sup> Environmentally forced migrants refers to those moving as a result of environmentally caused destruction, or the likelihood of environmental destruction, with only some choice in the timing.<sup>19</sup> Finally, environmental refugees refers to those whom 'have no choice about either moving nor the timing of the move.'<sup>20</sup> The most important characteristics across all of these three definitions

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<sup>15</sup> International Organisation for Migration, *IOM Outlook on Migration, Environment and Climate Change*, 21-22.

<sup>16</sup> *Ibid*, 21.

<sup>17</sup> Graeme Hugo, "Climate Change-Induced Mobility and the Existing Migration Regime in Asia and the Pacific." In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 12-13. Referring to definitions produced by Renaud see: Fabrice Renaud, Janos J. Bogardi, Olivia Dun and Koko Warner, "Control, Adapt or Flee: How to Face Environmental Migration?," *InterSecTions* UNU-EHS, No. 5/2007, (2007).

<sup>18</sup> *Ibid*, 13.

<sup>19</sup> *Ibid*, 13.

<sup>20</sup> *Ibid*, 13.



is the choice of movement and timing of movement. Substantially here between the definitions of environmental refugee and environmentally forced migrants, where the only difference is control over timing. This categorisation of people into subsets is key for the study, and protection of those facing environmental migration because of the incredibly broad range of scenarios of which can arise and cause movement. Environmental migration is home to many varied and unique scenarios and require varied and unique categories for them to be addressed effectively. While this set of terminologies are strong and broad, they are not deep the definitions nor does is the application of it clearly outlined. For this reason, these terms are best coupled with the primary used definition provided by the IOM for ‘environmental migrant.’

The term ‘environmental migrant’ is proposed as an appropriate term by the IOM and best used here to provide some depth and clarity to those produced by Renaud, whilst also stipulating that there is ‘no legally agreed upon definition of environmental migrants & migration’.<sup>21</sup> These definitions are able to work in conjunction with each other primarily for the reasoning that they are highlight different key attributes around which to centre their definitions. Renaud’s multipronged definitions consider environmental factors and how they impact people differently, and terminology is based on severity of applied forced, choice of movement and timing of movement. While the IOM does not distinguish between types or severity levels of environmental migrant, significantly for this paper, it incorporates length of displacement, destination of relocation, and types of environmental event (slow/sudden). These factors are of such weight because the primary focus of this paper is on the inadequate international framework surrounding long-to-permanent displacement as a result of slow onset environmental or climatic changes. According to the IOM, and for the purposes of this paper, the definition of an environmental migrant is as follows:

...persons or groups of persons who, for compelling reasons of sudden or progressive changes in their environment that adversely affect their lives or living conditions, are obliged to leave their homes or choose to do so, either temporarily or permanently and who move either within their country or abroad.<sup>22</sup>

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<sup>21</sup> International Organisation for Migration, *IOM Outlook on Migration, Environment and Climate Change*, 21.

<sup>22</sup> *Ibid*, 22. MC/INF/288, 94 Session of the IOM Council 27-30<sup>th</sup> November 2007.

For these reasons, this is the primary term that will be used in this paper to identify the individuals and communities forced to move due to their changing environmental conditions. It must also be noted that the IOM highlights concerns with phrasing, primarily with legal standing. The IOM concedes that for environmental migration to be considered true, movement must be forced, or involuntary – something which it also stipulates is difficult to achieve, as the distinction from economic migration is convoluted, especially in cases of pre-emptive movement as a result of slow onset degradation.<sup>23</sup> For the purposes of this paper, the primary concerned group will be those facing long-term migration, such as the pre-emptive migrants travelling cross borders and to a minor degree, those fleeing natural disaster. This group of migrants are arguably among the most vulnerable, due to the perceived unlikelihood of external movement, and the accompanying under-equipped avenues of legal and political support or protection. Therefore, environmental migrant, as defined by the IOM will be the primary term, regardless of whether sources utilise different terminology. In conjunction with this, are Renaud's categories as provided by Hugo, which will essentially be used as a further magnifying factor to supplement the standardised 'environmental migrant' term. Whereby for the purposes of this paper, 'environmental migrant' will be referring to those under the categories of 'environmentally forced' or 'environmental refugee' but not 'environmentally motivated.'

Aside from the primary terminology as defined above, the other key phrases of 'slow onset' and 'sudden' change induced migrants will be used. As mentioned earlier, the slow onset changes and associated environmental migration will be the primary focus of this paper, and so require clarifying to avoid any confusion. In the contexts of environmental migration, slow and sudden onset change refers to the speed in which the change in environmental conditions occurs. An example of sudden onset motivators is environmental disasters, such as rapid flooding, fires and major weather conditions, primarily storms. These sudden onset disasters result in spikes in migration primarily internally, but also externally in certain situations (such when impacting island nations), as people flee the devastation – and this type of environmental migration typically receives the greatest level of attention and support from the international community.<sup>24</sup> This type of migration is more often than not, temporary however, as the displaced people will move back to their homes once conditions allow, and

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<sup>23</sup> International Organisation for Migration, *IOM Outlook on Migration, Environment and Climate Change*, 21-22

<sup>24</sup> Regan, "International Migration: Human Rights and Development Dimensions," 157.

so only require short-term assistance. Dissimilar from sudden change, slow onset induced migration though currently lower in number, threatens far more, receives little if any international support but is more likely to result in long-term to permanent displacement.<sup>25</sup> The most common examples of slow onset environmental motivators are rising sea levels threatening islands and low lying coastal regions, glacial melt, droughts, or other similarly related issues. Additional forms of conditions likely to induce human movement are described by A. Lopez as, ‘global warming, deforestation, land erosion, salinity, siltation, waterlogging and desertification.’<sup>26</sup> Slow onset environmental change will often result in families and communities seeking to relocate pre-emptively, rather than wait until their situation is too dire. Figures of persons displaced between 1979-2008 by damaging storms range upwards of 718 million, while up to 1.6 billion were impacted by drought alone.<sup>27</sup> Further, Laczko and Aghazarm in ‘Migration, Environment and Climate Change’ (2009), claim that there is the potential for between 25 million to 1 billion (though approximately 200 million is the most cited figure) people to be displaced by degrading environmental conditions by 2050.<sup>28</sup>

### *Methodology*

As a disciplinary background, this paper relies on strong interdisciplinarity. The primary disciplines being political and social sciences, and international and human rights law. An interdisciplinary approach has been chosen for this complex issue, as it benefits the research by allowing the advancement and development of ideas to an extent that a single discipline cannot produce.<sup>29</sup> As climate change and associated environmental migration is a complex set of phenomena, with convoluted and intertwined relationships. In this way, ideas and issues alike are not constrained by any single discipline. This is important because substantive real-world progress is hindered when only considering one discipline; law for example has a harder time operating outside of its frameworks than the political or social sciences. Neither law nor the social sciences operate in a vacuum though – they are inherently interrelated, therefore making an interdisciplinary approach the most practical. The two disciplines chosen, the social sciences and law are also the dominant disciplines of human rights

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<sup>25</sup> Regan, “International Migration: Human Rights and Development Dimensions,” 157.

<sup>26</sup> Lopez, “The Protection of Environmentally-Displaced Persons in International Law”, 369.

<sup>27</sup> Regan, “International Migration: Human Rights and Development Dimensions,” 157.

<sup>28</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 5, 9.

<sup>29</sup> Bård A. Andreassen, Hans-Otto Sano, Siobhán McInerney-Lankford, eds., *Research Methods in Human Rights: A Handbook* (Cheltenham and Northampton: Edward Elgar Publishing, 2017), 163.

discourse – and their joint exercise provides a wider scope of application, as either discipline enhances the other.<sup>30</sup> At the same time, however, neither discipline is fully committed to – only to the extent that they are relevant to the arguments being made here.<sup>31</sup> Structure wise, this paper is largely a comparative analysis of ideas and issues and how they affect different scenarios. In Bård A. Andreassen’s words, this is used as a method of ‘naming and shaming,’ or ‘knowing and showing’ – the latter being more applicable here.<sup>32</sup> Such a description is relevant to demonstrate the breadth and scale of the field by the exploration of multiple case studies, highlighting its diversity. This is a useful approach that fosters the formation of opinions and ideas between multiple issues, emphasising the positive and/or negative similarities and differences.<sup>33</sup> Such as in this case, a generalised comparison between protection statuses, and across environmental migration cases and situations in different parts of the world. This research paper is based on a literature review of books, journal articles, and other online articles and sources such as United Nations and other governmental or non-governmental organisations’ publications.<sup>34</sup> While this field is by no means as fleshed out as other areas of international law, human rights or political and social sciences, and although this research is not exhaustive, a conscious effort has been made to identify and utilise the relevant major opinions and appropriate theorists. With the purpose to explore new ideas and concepts across disciplines, this research is primarily qualitative, though some quantitative elements have been used to highlight scale.

### *Limitations*

While the scope of this paper remains intentionally quite broad in many respects, the resulting limitations will be briefly mentioned and clarified here. Firstly, this paper utilises multiple case studies for the purpose of exemplifying the scale of impact, the spread (impacting many locations all over the world) of impact, and importantly the variety of situations and responses occurring, or required. Though this purposefully stresses the

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<sup>30</sup> Andreassen, Sano, McInerney-Lankford, *Research Methods in Human Rights: A Handbook*, 163-165.

<sup>31</sup> *Ibid*, 225.

<sup>32</sup> *Ibid*, 222-223.

<sup>33</sup> *Ibid*, 224.

<sup>34</sup> Sources have been collected from the databases and library resources made available by Åbo Akademi; as well as by examining the sources referenced in texts throughout the research. Articles have been searched for based on searches of key words for the paper. Used interchangeably, searches looked for references to ‘environmental migrant,’ ‘environmental refugee,’ ‘climate migrant,’ ‘climate refugee,’ or ‘environmentally displaced person/s;’ with further narrowing focusing on material dealing with issues of ‘security’ or ‘human security,’ ‘slow onset’ events and especially articles that dealt with international and/or permanent migration (though ideally both.)

importance of discourse, it detracts from the level of detail in which any single case can be examined. So, while any of the individual examples explored in this paper could be explored in further detail, for the purposes of this paper, a broader examination of climate change and environmental migration as a global problem through the parallels of the individual cases is more fruitful. In similar respects, the decision to approach this issue from a multidisciplinary perspective means that the depth of analysis in any particular disciplines are inherently limited. The multidisciplinary approach does however allow for new perspectives and conclusions to be reached, drawing from the inter-connectivity of the disciplines in practicality. This also mirrors the need for climate change and environmental migration to be brought out into wider discourse – rather than being discussed as a segregated issue. As the impacts of climate change and environmental migration have the potential, to some extent, to influence every facet of human existence, it belongs in multipronged discussion.

Though it is mentioned repeatedly throughout this paper, the concept of ‘climate change’, and in particular the discussion around it is not explored here. The reality of climate change is essentially taken as fact, for the purposes of this paper. So, while there is a much wider debate over the specifics of climate change than is represented here, there is little reason to highlight it further. Ultimately, doing so would detract from the focus of the paper, and given the extent of discussion on the topic, it would be unproductive.

As mentioned above, due to the multidisciplinary approach to the paper, the legal aspect of this issue is not elaborated to fuller extent. While this is intentional, further examination of International Human Rights Law through focused research into international migration law (such as the Refugee Convention, or the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families), as well as exploring regional migration systems such as the African Union’s, which advocates for the recognition of peoples and communities, could be very beneficial for this topic. In conjunction with the size and time restriction of this paper, such a focus here is beyond the scope of this paper.

While the focal point of this paper is on environmentally induced external migration and associated risks, there are closely related topics that are not covered. Firstly, internal migration is not a focus here. There are numerous reasons for this; as internal environmental migration is by far recognised to greater extent than external migration, and it is also provided greater standards protection (such as through the Guiding Principles on Internal

Displacement.) Continued, as a primary point of this paper is the importance of the international community to cooperate in combating environmental migration, and that if left unchecked, unsupported external migration has a far greater potential to cascade in dangerous scenarios. Thus, while internal migration is occasionally mentioned as required, the focus of this paper set on external movement and its accompanying dimensions. Secondly, there are substantial environmental events that are not detailed here. Events such as geological activity, though similarly relevant, is not necessarily connected to climate change, which is a significant aspect for the arguments made in this paper – this is not to say however, that events such as earthquakes or tsunamis are lesser than the examples discussed in this paper by any means. Similarly, industrial damage and pollution is a significant problem for the area of environmental discussion, climate change, and migration. However, industrial damage is an entirely different type of issue, and as an issue would require significant added investment to do justice to its substance. Including it in this paper would also require a re-focusing of the cases chosen, and extensive exploration of corporate responsibility and accountability. While it may be, to some extent, relevant to the examples chosen, due to these reasons and in order to focus the scope of this paper, the industrial aspect will not be discussed. Finally, sudden-onset disaster events, alongside temporary migration will not be explored to its full extent – though it will be covered in general. Significant more attention can be given specifically to sudden events in conjunction even with external migration at both a temporary and permanent level. However, sudden disaster events are already covered to a greater extent than slow-onset changes and is beyond the scope and focus of this paper; it would require additional investigation into disaster response and prevention tactics, which will be not covered. While sudden onset events are occasionally mentioned throughout this paper, it is important to acknowledge that it is a far broader and deeper issue than is discussed here.

### Background and Current Debate

As previously mentioned, there is a significant lack of consistency amongst scholars surrounding this field – not only over terminology, but also the merits of discussion, forms and severity of risk, the causes of environmental migration and its potential consequences. This section demonstrates some of these positions and highlight important areas of discussion in the field in order to establish further context for this paper; such as, why do people migrate and what is the connection to climate change and their environment, and the risks involved in the current international paradigm.

### *What Causes Environmental Migration?*

There is a vast variety of opinions and ideas circulating in the field as to why people migrate, and what possible connection there could be to their environment and climate. Even what can be labelled environmental migration – or similar term – is fiercely disputed (i.e. a terminology argument). Further cause for disagreement in the field is as a result of accuracy and availability of information. As Graeme Hugo writes in Jane McAdam's *Climate Change & Displacement: Multidisciplinary Perspectives*, 'migration data remains scarce and the understanding of the important drivers and impacts is also weak.'<sup>35</sup> Graeme goes on to explain that while he believes that the impact of climate change and our environments have been underestimated as a motivator to migrate, our understanding of it is also severely effected by an inhibiting lack of data.<sup>36</sup> So while there is arguably a general understanding that climate and environment have, or will have an impact on migration patterns, the extent of understanding and appreciation are 'anecdotal.'<sup>37</sup> Despite the controversy however, many other scholars have a similar opinion that climate change is a driver for migration. Robert A. McLeman also examines the interlinkages between migration and the environment in his book, *Climate and Human Migration: Past Experiences, Future Challenges*.<sup>38</sup> Here, McLeman determines that a 'single environmental event [e.g. a hurricane] can lead to multiple forms of migration simultaneously.'<sup>39</sup> Forms of migration in this instance refer to temporary or permanent, and migrating purposefully toward beneficial climates or away from adverse ones. However, environmental migration is portrayed primarily as a secondary motivator by McLeman – not as a root cause, at least outside of disaster level events. The environment is seen mostly as a quality of life modifier that can either attract or repel migration.<sup>40</sup> Further in this regard, he details that climate and environmental conditions influence how potential migrants respond to cultural, economic, political and social motivators.<sup>41</sup> This is a position that is drawn upon to disqualify environmental migration from being taken seriously as an independent motivator – and it is a repeated stance. Graeme Hugo similarly draws attention to this discussion, quoting Black in stating that conceptualising either environmental degradation or catasphrophe as primary causes of

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<sup>35</sup> Hugo, "Climate Change-Induced Mobility and the Existing Migration Regime in Asia the Pacific." In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 30.

<sup>36</sup> *Ibid*, 30.

<sup>37</sup> *Ibid*, 30.

<sup>38</sup> McLeman, *Climate and Human Migration: Past Experiences, Future Challenges*, 45.

<sup>39</sup> *Ibid*, 45.

<sup>40</sup> *Ibid*.

<sup>41</sup> *Ibid*, 75-76.

‘forced displacement is unhelpful and unsound intellectually and unnecessary in practical terms.’<sup>42</sup> While this is not necessarily the position of Hugo himself, it is another side of the debate that he is able to recognise – true or not, in his eyes. Operating with the same assumption as Hugo, that climate and environment can feasibly be either primary or secondary motivators of migration, then there are certain conditions that can be acknowledged to likely now or in the future, cause population movement.

Previously above, and in the early definitions section, the issue of understanding and appreciating the environment and especially climate change as only a supplementary movement motivator has been mentioned – especially in regard to slow onset changes. These slow onset changes are a problematic area for the international community, and for environmental migrants, when considering possible forms protection, now and in the future. As mentioned in the previous section already, this is because it is difficult to distinguish them from traditional economic migrants – it is difficult to see or prove any real risk or danger to life.<sup>43</sup> Legally speaking, there are also many other barriers to protection – for instance, the persecutory requirement of the Refugee Convention.<sup>44</sup> It is for these reasons, a difficulty to distinguish between migrant types, and old definitions (of refugees), that allows others such as the before mentioned Black or Hugo, to argue that environmental factors exacerbated by climate change, are primarily or solely supplementary motivators.<sup>45</sup> This train of thought limits and simplifies the inherent connection between communities, individuals, their environments and their economies. Inaccurately placing economic motivation above other issues, when environment or climate change are just as likely to be the root cause – with economic reasoning following as a result. In cases of human conflict however, where business, infrastructure and livelihood are destroyed, it is not debated that people fleeing are doing so because of economic troubles – even if poverty existed prior to the conflict. The same courtesy should be afforded to environmental migrators. For instance, using salinification as an example, which can be logically linked to climate change, a farmer whose

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<sup>42</sup> Hugo, “Climate Change-Induced Mobility and the Existing Migration Regime in Asia the Pacific.” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 30-31. Referring to Black see: Richard Black, “New Issues in Refugee Research: Environmental Refugees: Myth or Reality?,” (Brighton: University of Sussex, 2001) Working Paper No. 34.

<sup>43</sup> International Organisation for Migration, *IOM Outlook on Migration, Environment and Climate Change*, 21-22.

<sup>44</sup> Office of the United Nations High Commissioner for Refugees, United Nations, *Convention and Protocol Relating to the Status of Refugees*, 1951 and 1967. Refugee Convention, art. 1 A (2).

<sup>45</sup> Hugo, “Climate Change-Induced Mobility and the Existing Migration Regime in Asia the Pacific.” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 9.



land has become increasingly saline as a result of minor rises in sea level is no longer able to grow crops on his or her land. The decision has to be made to move, or stay and risk poverty, starvation and potentially eventual death or degrading conditions. The salinification is the root cause of change and migration, the economic struggle may be but one consequence. While this is but a hypothetical example, it is not far from the reality facing some people already. Theorists such as John Campbell<sup>46</sup> and Donatien Garnier<sup>47</sup> examine very similar scenarios. In his writing, Donatien Garnier explores the impact of climate change, sea level rise and salinification on the small Pacific Island nation of Tuvalu. This example will be briefly explored here, but it will also be revisited at a later stage in this paper to a greater degree. While the sea level still has not risen to such a level to cover the island surface, ‘large saltwater puddles’ have been forming with increased frequency sterilising the soil underground and preventing cultivation.<sup>48</sup> With situations such as this, it is not difficult to appreciate how economic and environmental reasons for migration can both be seen as the prime motivation for movement. Unlike slow onset factors, sudden onset changes or disasters provoke a very different reaction from academia and the international arena.

Sudden onset changes or events, specifically climate or environmental disasters, typically cause instant, large scale displacement through events such as fires, floods, damaging storms, cyclones or tsunamis’ (though the latter is geological, rather than climate related.) Displaced persons will likely seek temporary safe harbour from either the event itself, or from at least a portion of the conditions associated with the aftermath. As Lopez explains however, ultimately there is the expectation that those displaced by such events will return to their natural place of residence after a certain duration.<sup>49</sup> This is the first key difference that separates sudden onset environmental migrants from the previously mentioned slow onset migrators. The second key difference is that, in large part, there is no confusion about the distress of those affected; those fleeing natural and environmental disasters are clearly involuntary migrators. They will assuredly not be confused with traditional economic migrants.<sup>50</sup> Legally in this regard, the Council of Europe (CoE) provides a keen example of the support that the international community provides for those seeking refuge from disaster

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<sup>46</sup> Campbell, “Climate-Induced Community Relocation in the Pacific: The Meaning and Importance of Land.” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 57-80.

<sup>47</sup> Donatien Garnier, “Pacific Ocean: Tuvalu, Polynesian requiem.” In Collectif Argos, *Climate Refugees*, p271-280.

<sup>48</sup> *Ibid*, p273.

<sup>49</sup> Lopez, “The Protection of Environmentally-Displaced Persons in International Law”, 369

<sup>50</sup> *Ibid*, 369.

events – detailed in the Councils Directive on Temporary Protection.<sup>51</sup> This directive establishes the expectation that Council of Europe (CoE) nations will support and aid groups for a pre-determined period of time until events in their home nations or regions calm – such events which include (though not exclusively) natural or environmental disasters.<sup>52</sup> This is an example of but one regional system and its support, however it is mirrored and aided by other international systems and international organisations – for example, the International Organisation for Migration. The shortfall of these aid groups and policies however, as Aurelie Lopez draws attention to,<sup>53</sup> is the scientific expectation that disaster will not only intensify but occur with greater frequency. If we are able to critically accept the science of Climate Change and acknowledge it as fact, we can acknowledge the concept of more frequent and damaging natural events as fact. Which means, while such policies as the Directive on Temporary Protection are still important, they address the problems only as one-off temporary events – that is, putting out spot fires. Whereas, accompanying the expectations of greater strength and frequency of events, damaging disastrous conditions may become so rampant that they could force permanent migration, in some form. If so, why would people wish to, or even be expected to return to their homes with the knowledge that the same event may well be just around the corner again.

### *Security Risks and Environmental Migration*

The security implications of environmental migration are a topic that is broadly acknowledged, however is often seen as a secondary or separate concern. There are a range of security risks, across a variety of types of threats that are raised in the field. The environmental migration phenomenon can be linked to a variety of security threats, including, but not limited to, issues of national security, public security, communal security, and human security impacting the political, cultural, lifestyle and integrity of individuals and states alike. Robert A. McLeman describes the interaction between climate and migration as potentially destabilising but considered the topic only as an ‘emergent issue’.<sup>54</sup> He continues to discuss that there are processes which occur that undermine such security concerns, in which climate change and subsequent movement is a ‘threat multiplier’.<sup>55</sup> In this regard, McLeman identifies 5 primary processes to undermine security: volatile weather, more

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<sup>51</sup> Lopez, “The Protection of Environmentally-Displaced Persons in International Law”, 369.

<sup>52</sup> Ibid, 369.

<sup>53</sup> Ibid, 369-370.

<sup>54</sup> McLeman, *Climate and Human Migration: Past Experiences, Future Challenges*, 210

<sup>55</sup> Ibid, 213.

common and intense disaster events, unregulated migration, changes in fertility or natural conditions, and resource disputes.<sup>56</sup> Volatile weather refers to changes in temperature and rainfall leading to agricultural collapse, food shortages as well as water or even energy scarcity.<sup>57</sup> Greater than the obvious impact on individual safety, intense disasters cause significant damage to infrastructure, can cause health burdens increasing risk of disease outbreaks such as malaria, and is potentially destabilising for some nations, with the possibility to spark violence both internally and externally.<sup>58</sup> Unregulated and uncontrolled migration can force potential migrants to search via illegal methods, such as people smugglers – exposing migrants to exploitation.<sup>59</sup> Or, result in uncontrolled population relocation and heavy concentrations at resource hot spots, risking supplies.<sup>60</sup> Further, changes in natural conditions threaten to make areas inhospitable through droughts or rising sea levels.<sup>61</sup> Resource disputes here refer to potential conflict arising for access to resources previously undiscovered, for instance in the polar regions (as permafrost retreat reveals untapped resources), or perhaps more likely, for access to shared resources that have begun to dwindle.<sup>62</sup> It is through the lenses of these key processes in which we can examine the security threats discourse as mentioned above.

The potential impact on personal or individual security is a topic with varying arguments over its significance. On one hand, narrowing the threat of climate change on people to an individualistic, ad hoc assessment is inherently limiting and takes from the theoretical magnitude of the danger. While on the other hand, the prime focus of international, regional and national systems almost always focusses on the individual, with the only real exception being the Charter of the African Union – which recognising communities as the rights holders.<sup>63</sup> Making the only real way in which a threat can be legally conceptualised is through the individual perspectives of those affected. From McLeman's processes, we see that all are relevant for the security of individuals. Volatile weather and disasters for example will threaten the continued realisation of individual rights to the likes of housing, food, economic stability, and even health, subsequently impacting on individuals ability to

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<sup>56</sup> McLeman, *Climate and Human Migration: Past Experiences, Future Challenges*, 213.

<sup>57</sup> *Ibid*, 213.

<sup>58</sup> *Ibid*, 213.

<sup>59</sup> *Ibid*, 213.

<sup>60</sup> *Ibid*, 213.

<sup>61</sup> *Ibid*, 213.

<sup>62</sup> *Ibid*, 213.

<sup>63</sup> See the Organisation of African Unity, *African Charter on Human and Peoples' Rights*, 1981, CAB/LEG/67/3/Rev 5.

survive.<sup>64</sup> Additionally, Mc.Leman suggests that unregulated migration and resource dispute pose a more direct threat to state stability and subsequently individual security.<sup>65</sup> While Aurelie Lopez for example, also examines the issues of over-population, environmental exploitation and water scarcity as potential consequences of environmental migration affecting security of states and individuals.<sup>66</sup> While others such as John Barnett and Michael Webber consider another perspective – the danger faced to those people whom do not migrate. Suggesting that because of the lack of available avenues and possibilities provided to potential environmental migrants (particularly by the international community), many may remain in adverse conditions, giving way to larger humanitarian crises.<sup>67</sup> This is coupled with the expectation by Barnett and Webber that environmental migration will primarily occur in developing nations, further exacerbating a volatile landscape.<sup>68</sup> A final example of the background discussion surrounding security in this field will be drawn from the collective authors of ‘Climate Refugees’, whom argue that the current atmosphere, definitions and categorisations employed by the international community, and in this case specifically the UNHCR, allows for an environment in which nations can justify their refusal to aid.<sup>69</sup>

Despite the categorisation of threats done through theorists such as McLeman, it is important to be ever aware of the interrelated relationship between these threats, and to environmental migration. Events (climate event or migration) and their consequences (security threats) do not exist in independent vacuums, they are intertwined and affect each other. This section is but a preliminary background of the discussion of environmental migration, and related security aspects – particularly as raised by other theorists. The relationship between security concerns, climate change and environmental migration will be explored to a greater degree in later stages of this paper. With specific cases of climate and environmental change being examined with reference to potential and current migration, as well as potential and current security threats.

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<sup>64</sup> McLeman, *Climate and Human Migration: Past Experiences, Future Challenges*, 210.

<sup>65</sup> *Ibid*, 210-213.

<sup>66</sup> Lopez, “The Protection of Environmentally-Displaced Persons in International Law.”

<sup>66</sup> *Ibid*, 369.

<sup>67</sup> Barnett and Webber, “Migration as Adaptation: Opportunities and Limits.” In McAdam, *Climate Change and Displacement: Multidisciplinary perspectives*, 40.

<sup>68</sup> *Ibid*, 54-55.

<sup>69</sup> Collectif Argos, *Climate Refugees*, 15-16.

## International Human Rights Law, and the Refugee Convention

Before going into detail of various types of environmental migration, we will first briefly explore the legal situation specific to environmental migrants in the international arena. This will involve touching on the limitations of international treaties, specifically the 1951 Refugee Convention, as well as the concept of Complementary Protection. The Refugee Convention and International Human Rights Law (IHRL) is targeted in this section for several reasons. Firstly, they essentially represent the goal to reach – the level of protection that is arguably needed. Secondly, IHRL and the Refugee Convention especially define key terminology – such definitions established by it are referenced widely in other documents or legal rulings such as in migration cases between Australia/New Zealand and Tuvalu migrants (which will be elaborated on further later). For these reasons, the Refugee Convention and associated international law examined in this section is detailed independently here. Other environmental and political initiatives, such as regional agreements and international conferences will be exemplified in later sections.

Noting that while the terminology used in this paper and field often attempts to avoid the word ‘refugee’ due to its legal characteristics, the Convention could theoretically provide protection beyond this singular category.<sup>70</sup> Thus, it is this level of protection afforded through the Refugee Convention that is the most appealing for it to be used, either directly or as a conceptual framework in cases of involuntary or forced environmental migration.

Despite the primary purpose of the 1951 Refugee Convention being aimed at the invested protection of asylum seeking refugees such as those fleeing conflict, there is some argument to be made for the broadening of its application – at least in some form. Jane McAdam argues that while the refugee label itself serves a more political agenda than anything else, the 1951 Convention holds some protection potential for those forcibly displaced by environmental reasons.<sup>71</sup> This kind of application is of course not without its limitations and weaknesses, most heavily being placed on the concept of persecution, as well as the spatial and timeframe parameters of any given instance. In regard to persecution, the 1951 Refugee Convention establishes the prerequisite of an international refugee as someone whom has a ‘well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular

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<sup>70</sup> McAdam, *Climate Change, Forced Migration and International Law*.

<sup>71</sup> *Ibid*, 39.

social group or political opinion' is forced to move out of their country of origin as a result of said fear.<sup>72</sup> Here we find possibly the largest hurdle faced when considering the application of the Convention in cases of environmental migration – it is difficult to imagine the events as persecution, let alone being able to identify the persecutor. The traditional application of this Convention would see people fleeing their own country because of their or another countries' actions, with another non-violating state as the destination. This is a reality arguably not often applicable to cases of environmental migration. Jane McAdam establishes this by drawing on the situation faced by the people of Kiribati – 'it is the actions of other States that will ultimately force their movement, not the actions of their own leaders.'<sup>73</sup> Logically, the persecutor can only be seen as the industrialised states and civilisations.<sup>74</sup> This is however not possible under the current paradigm – legally, climate change is not perceived persecution, let alone targeted. Nevertheless, these will be the very states that will likely go the longest without suffering directly from climate change, and the states that environmental migrants will seek to reach in their movements are the prime contributors to the conditions causing migration. This represents an identity problem for the Convention, as it is not equipped to handle displacement to the persecutor state (assuming legal identification would be possible). Theoretically, establishing protection hinges on the ability to identify climate change as the cause of any particular environmental event, as well as the task of establishing climate change as a form of persecution. This is something that Jane McAdam, for one, does not consider valid.<sup>75</sup> Arguing that the degree of risk, the right that is at risk, and the likelihood of impairment of a given right is not adequately feasible in most environmental cases, to meet the international standard of persecution.<sup>76</sup> There is however, no argument to the ethical responsibility of the international community to the protection of the environmentally displaced – because the spirit, and purpose of protection remains the same, regardless of the established standards of practice. Additionally, the example cases that will be discussed later in the Pacific Islands, Lake Chad Basin, and greater Himalayan region will attempt to oppose the assertion from McAdam. As the Canadian Attorney General notes, that while the refugee convention is not applicable to environmental victims, these 'cases might seem deserving of international sanctuary.'<sup>77</sup> The international acceptance of climate change as a human

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<sup>72</sup> 1951, Refugee Convention, art. 1 A (2).

<sup>73</sup> McAdam, *Climate Change, Forced Migration and International Law*, 41.

<sup>74</sup> Intergovernmental Panel on Climate Change, (IPCC), *Climate Change: The IPCC Scientific Assessment: Final Report of Working Group I*, (Cambridge: Cambridge University Press, 1990), 8.

<sup>75</sup> McAdam, *Climate Change, Forced Migration and International Law*, 43.

<sup>76</sup> *Ibid*, 43.

<sup>77</sup> *Ibid*, 46.

induced occurrence that sparks dire events and circumstantial change is fundamental to being able establish it has a form of persecution, without this level of social or political perception, legally, little is likely to change.<sup>78</sup> As it has been said already, climate migration is an event that does, and will continue to disproportionality impact developing nations – therefore, the leap to considering climate change as a persecution based on nationality is not such a large leap.<sup>79</sup> Regardless, it is the responsibility of the international community to move past such restriction and limitation; to remember, and re-embrace the purpose of the treaty – to provide protection, sanctuary, and support for peoples whom are involuntarily displaced from their homes and forced to move through no fault or action of their own.

Aside from the persecutory challenge of the Refugee Convention, there are also elements such as timing, which are inhibiting its relevance to environmental migrants. The protection frameworks employed through the Refugee Convention do allow for anticipatory movement,<sup>80</sup> or in the case of environmental migration, also known as pre-emptive migration. While this is something required for environmental migration, as movement is both responsive and pre-emptive, there are specific applicability restrictions to this again, such as the ‘well-foundedness’ of fear and the significance of a reasonable timeframe.<sup>81</sup> Returning to the definitions employed in this paper, we have seen this issue raised specifically through the terminology put forth by Renaud<sup>82</sup> and Hugo<sup>83</sup> - whereby the timing of a response to a situation can be used to categorise migration types. Thus, attempting to differentiate from those merely influenced by environmental conditions, and those with no choice of time or circumstance – or, establishing the voluntary, from the involuntary. Despite operating in such a fashion (anticipatory characteristics), the imminence of harm if returned must be reasonable.<sup>84</sup> Excluding the instances of disaster responses (such as for slow-onset changes), this is something that is inevitably difficult, if not near impossible to prove in some cases to a level acceptable by the current legal framework surrounding the Convention. As environmental migration when responding to slow onset changes can rarely be appreciated as a dire nor imminent threat to an individual’s rights, save for socio-economic rights. Such as

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<sup>78</sup> Ben Glahn, “‘Climate Refugees’? Addressing the International Legal Gaps – Part II,” *International Bar News* 63, No.4/News 47 (2009): 2.

<sup>79</sup> Lopez, “The Protection of Environmentally Displaced Persons in International Law,” 379.

<sup>80</sup> McAdam, *Climate Change, Forced Migration and International Law*, 49-50.

<sup>81</sup> *Ibid*, 49-50.

<sup>82</sup> Renaud, Bogardi, Dun and Warner, “Control, Adapt or Flee: How to Face Environmental Migration?”

<sup>83</sup> Hugo, “Climate Change-Induced Mobility and the Existing Migration Regime in Asia and the Pacific.” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 12-13.

<sup>84</sup> McAdam, *Climate Change Forced Migration and International Law*, 50.

when responding to desertification, sea level rise or water shortages – the real danger to lives essentially is only visible at the end, when the damage is done and when it may be too late. People seek alternatives as environmental situations deteriorate – not only after conditions have collapsed or are the their direst. In short, regardless of the other restrictions of the 1951 Refugee Convention, it also effectively operates on too short a timeframe to be an appropriate tool of response for environmental migration in all its forms.

The Refugee Convention, while not itself appropriate, does provide us with valuable tools that could be used to act as a framework of action for environmental migrant protection.<sup>85</sup> Though the political atmosphere surrounding migration, and in particular, the category of refugees and asylum seekers, is visibly hostile, and increasingly xenophobic,<sup>86</sup> which can be seen all over the world, especially in peak destination locations such as Europe, America and Australia. Meaning that this is not the type of political climate that is congenial to the introduction of a new category of displaced persons in need of protection – not when numerous countries already claim strain under the current refugee numbers. This problematic reality is very important to appreciate, regardless of which discipline the issue of environmental migration is viewed – political, legal or otherwise. Benjamin Glahn quotes J. McAdam in this regard stating that, ‘there is a precedent for evolving norms [international] through regional approaches,’ as international law isn’t itself able to provide solutions – or in this context, produce solutions.<sup>87</sup> So while international law, and the Refugee Convention itself are ‘cumbersome’<sup>88</sup> tools, especially when looking to new applications, this is also because development in the field is preceded by regional, political and societal shifts. While it is true that we are seeing the societal shift towards environmental concerns, for instance environmentally friendly transport and renewable energy, it is still yet to establish a prominent political presence, especially not in regard to forming an international consensus – keenly portrayed, for instance, by the abandonment of the Paris Climate Accord by the United States. Though this is not directly related to environmental migrants, it does display the tenuous footing environmental awareness has in the international arena. Thus, development of legal protection for any form of environmental migrant protection is already hindered by the struggles in both the environmental and migratory domains of international

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<sup>85</sup> McAdam, *Climate Change Forced Migration and International Law*.

<sup>86</sup> NGO Committee on Migration, *Call for a human rights-based approach to migration and development*, United Nations, 2009, 2.

<sup>87</sup> Glahn, “‘Climate Refugees’? Addressing the International Legal Gaps – Part II,” 1-2.

<sup>88</sup> McAdam, *Climate Change Forced Migration and International Law*, 50.



politics. Despite this, the world is able to adapt and evolve to changing circumstances – and the 1951 Refugee Convention does showcase some quality, transferable attributes for any potential future avenue of protection. McAdam highlights such features as the standard of proof, durable solutions, a protective rights-based framework, legal status and institutional oversight, such as via the United Nations High Commissioner for Refugees.<sup>89</sup> Establishing a sound standard of proof will without a doubt be a challenge, especially the ability to determine between forced environmental migration and environmentally motivated migration. It would, however, be a key limiting mechanism to aid any form of an environmental migrant protection framework that may develop. While an appropriate legal status and dedicated oversight by a recognised international body would aid legitimacy and combat violation, as would basing any such framework with a protective rights-based footing – such as through the complementary protection associated with International Human Rights Law.

It is understood that climate change will impede the enjoyment of certain fundamental human rights, and there are a number of fundamental human rights established directly by the Universal Declaration, and subsequently reinforced and built upon through treaties that could be utilised to elicit protection of environmental migrants. As climate change no doubt does and will continue to impact the poor countries of the world to a greater extent than wealthier countries (either as a direct result of geographical locale, or resources available for mitigation efforts),<sup>90</sup> there is added responsibility and expectation for external support. This is especially so given the fact as Jane McAdam states, the poorer nations ‘start from a place of disadvantage,’<sup>91</sup> perpetuating this responsibility of the international community. Further even, as such support indicated and heightened through the recent 2030 Sustainable Development Agenda, which both has a specific focus on migration, human rights and environmental protection – that promises ‘not to leave anyone behind.’<sup>92</sup> However, the majority of these rights fall under the socio-economic branch of International Human Rights Law (IHRL) – such as the right to housing, work and protection against poverty – which are arguably only trivially justiciable. They are certainly not to be considered of significant enough a priority on their own for a state to grant sanctuary for such a reason.

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<sup>89</sup> McAdam, *Climate Change, Forced Migration and International Law*, 51.

<sup>90</sup> *Ibid*, 56.

<sup>91</sup> *Ibid*, 56.

<sup>92</sup> General Assembly, United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, 2015, A/RES/70/1, Agenda Items 15/116, preamble, 1.

The right to life, or the ‘supreme right,’<sup>93</sup> enshrined in major international documents such as the Universal Declaration of Human Rights (UDHR)<sup>94</sup>, and the International Covenant on Civil and Political Rights (ICCPR),<sup>95</sup> on the other hand brings with it a greater level and expectation of both negative and positive protection from its violation. These core human rights treaties and human rights law offer a much broader range of avenues for possible protection than the Refugee Convention alone – ‘Human Rights law has expanded States’ protection obligations beyond the ‘refugee’ category...’ to encompass people at risk.<sup>96</sup> The risk, and the danger to a given fundamental right being the direst objective to prove when advocating for environmental migrant protection. Human Rights law is applicable to the receiving state, and its treatment of migrants, regardless of motivation, if rights are threatened – opening the possibility for ‘Complementary Protection.’<sup>97</sup> Importantly in this case, and unlike the socio-economic rights, is the attributed non-refoulement obligation on states.<sup>98</sup> Meaning that if there is a certifiable risk to life, states are under an international obligation to provide sanctuary. Though there is no such persecution prerequisite in this case unlike the Refugee Convention, there are similar difficulties when considering the timeframe. As unlike many traditional migration motivators, environmental ones are often operating over a far longer timescale altogether – with the possibility to take decades, if not centuries to reach the level that would ultimately prevent sustainable habitation. Which is once again, problematic for the purposes of seeking a non-refoulement argument; as state and migrant interests are of equal weight (unless there is credible and imminent risk of life, or inhumane treatment).<sup>99</sup> Therefore, if cases of pre-emptive migration are too far in advance of danger, as is likely to occur, then recognition of non-refoulement is unlikely – either in accepting a risk to life, or inhumane or degrading treatment.<sup>100</sup> In other words, the threat must be imminent, which is characteristically opposed to pre-emptive migration – though irrelevant to reactive migration.

While there are possible legal avenues of protection for environmental migrants through both

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<sup>93</sup> Office of the High Commissioner for Human Rights, Human Rights Committee, *CCPR General Comment No. 6: Article 6 (Right to Life)*, 16<sup>th</sup> Session, Human Rights Committee, 1982, para. 1.

<sup>94</sup> General Assembly, United Nations, *Universal Declaration of Human Rights*, 1948, A/RES/3/217A, art. 3.

<sup>95</sup> General Assembly, United Nations, *International Convention on Civil and Political Rights*, 1966, A/RES/21/2200A (XXI), art. 6.

<sup>96</sup> McAdam, *Climate Change, Forced Migration and International Law*, 53.

<sup>97</sup> *Ibid*, 53.

<sup>98</sup> *Ibid*, 56.

<sup>99</sup> *Ibid*, 53.

<sup>100</sup> *Ibid*, 53, 84.

the Refugee Convention and other core Human Rights Treaties, the extent of this protection is exceedingly limited, and circumstantial. Though likely unintentional, the current international protection framework is simply not designed with environmentally motivated migration in mind, as can be clearly seen.<sup>101</sup> For example, climate reasoning is not explicitly excluded from the current framework of recognising inhumane or degrading treatment, but significant development is needed before its application is realistic.<sup>102</sup> The justification for protection is there – but the problem with applying the current legal paradigm is timing, above all else. A case here or there may be successful in its application, but it is not widely accepted or broadly developed to the extent that it could handle any form of mass displacement event – the kind of event that’s occurrence is increasingly being predicted.

### Climate Change and Forced Environmental Migration Scenarios

There are a numerous variety of events that occur that can facilitate the conditions for environmental migration, and here some will be explored. From the sudden events such as disasters that cause immediate large-scale movement, to the slow-onset circumstances such as sea level rise, glacial melt, and water scarcity that destroy the habitability of areas over long periods. While the two types of occurrences are quite different, especially in the urgency, both do have the potential to force families to migrate in search of better conditions for extended, if not permanent periods. It is also not only the duration of time of migration that threatens to grow in the coming decades, but the scale as well. It has been widely suggested, such as in work by A. Lopez,<sup>103</sup> Laczko and Aghazarm,<sup>104</sup> and the Nansen Conference,<sup>105</sup> that the number of people impacted by climate change will only continue to grow, as its effects are felt in an increasing number of ways, in an increasing number of places – and so, the amount of displacement and number of migrants will correlate to this growth.

IOM in 1992:

‘Large numbers of people are moving as a result of environmental degradation that

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<sup>101</sup> McAdam, *Climate Change, Forced Migration and international Law*, 54.

<sup>102</sup> Office of the High Commissioner for Human Rights, Human Rights Committee, *CCPR General Comment No. 15: The Position of Aliens under the Covenant*, 16<sup>th</sup> Session, Human Rights Committee, 1986.

<sup>103</sup> Lopez, “The Protection of Environmentally-Displaced Persons in International Law”, 371.

<sup>104</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 260.

<sup>105</sup> Gahre, *The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century*, 10.

has increased dramatically in recent years. The number of such migrants could rise substantially as larger areas of the earth become uninhabitable as a result of climate change.<sup>106</sup>

The cases below will be examined in detail to demonstrate that what is called slow onset events can lead to forced migration. The ability to recognise and connect slow onset environmental and climate change to the involuntary migration of people is perhaps one of the greatest challenges of this field, largely because of the wide arraying circumstances – as well as in individual events similarities to economic migration. This is such a great challenge because this is a major barrier impeding the development of any form of protection system – the ease to label migrants as economic, and the detachment from refugee-hood and its persecutory requirement. To escape from this hypothetical conundrum of distinction, different situations occurring right now will be detailed, at different locations around the world that are beginning to force the movement of people – as well as the security concerns of such situations.

The security effects of climate change, and specifically the effect that climate change could possibly have on migration demonstrates an attempt to stress the urgency for substantial discord and practical development in the field. Given, as Graeme Hugo states, ‘climate change will be a significant influence on migration... in the later decades of the twenty-first century,<sup>107</sup> the necessity to establish climate change and environmental migration, particularly forced environmental migration in the forefront of international rights, security and migration discourse is only growing in importance. Lorraine Elliot emphasizes this security aspect, while also stressing the importance to differentiate between dystopian hysteria and grounded expectations.<sup>108</sup> Elliot establishes that a security concern in general is in reference to ‘...claims by an authoritative actors that a problem constitutes a threat to a significant referent object’ (typically in this case, a state itself,) and the states perception of a threat.<sup>109</sup> Without going so far as to claim that climate change and environmentally forced migration is like to cause such problems as to collapse states, it is within well-founded reason

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<sup>106</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 13.

<sup>107</sup> Hugo, “Climate Change-Induced Mobility and the Existing Migration Regime in Asia and the Pacific.” In McAdam, *Climate change and displacement, Multidisciplinary perspectives*, 9.

<sup>108</sup> Lorraine Elliot, “Climate Migration and Climate Migrants: What Threat, Whose Security?” in McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 175-190.

<sup>109</sup> Elliott, “Climate Migration and Climate Migrants: What Threat, Whose Security?” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 175.

that it is expected to affect significant security issues. While environmental migration itself can assuredly be a prime motivator for migration, whether through direct fear or as a catalysis for secondary affects, its greatest impact on security is as a multiplier for pre-existing circumstances.<sup>110</sup> Which will be keenly demonstrated in the Lake Chad and the Himalayan examples below. Assuming the occurrence of large scale environmental migration, as has been explored, then there will be human security consequences, especially without development of any of the international mechanisms.<sup>111</sup> This position is also reflected in the stagnation of discussion. The IOM for instance noted a spiked increase in environmental degradation 30 years ago – warning that migration could rise sharply.<sup>112</sup> In the same year, Robert Kaplan envisaged coinciding dystopian consequences of environmental migration in the 21<sup>st</sup> Century.<sup>113</sup> While, as previously mentioned, such dystopian claims are often baseless assertions – it does demonstrate the presence of a certain dialogue and mindset for some time. Yet little has changed or been achieved in the meantime. Climate change as a migratory motivator is or has not being taken seriously – despite the long existing concern. With the speed of meaningful dialogue demonstrated, environmental migration can no longer be a topic for later – given another three decades, we will already be approaching key dates in the Himalayan, Lake Chad and Pacific Island timelines, as will be examined. Climate change and its connection to environmental migration stimulate greater risks than prompting human movement alone. This relationship between climate, migration and various security concerns must be clearly outlined, and explored in the field. As Laczko and Aghazarm claim, environmental migration was originally framed as a security issue – but as time goes by without substantive progress, security becomes again increasingly important.<sup>114</sup> There climate change and environmentally motivated migration, can be utilised as a reason to garner greater awareness, given its capability to produce an extensive and diverse range of security threats, with implications affecting the migrators, and the destination and receiving states as well. Such as endangering national security, public security, communal security, human security, while potentially impeding political and social order of developing states in particular – even so far as to propagate violence or even conflict.

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<sup>110</sup> McLemen, *Climate and Human Migration: Past Experiences, Future Challenges*, 213.

<sup>111</sup> Elliott, “Climate Migration and Climate Migrants: What Threat, Whose Security?” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 176.

<sup>112</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 13-14. See also, McLemen, *Climate and Human Migration: Past Experiences, Future Challenges*, 210.

<sup>113</sup> Robert D. Kaplan, “How scarcity, crime, overpopulation, tribalism, and disease are rapidly destroying the social fabric of our planet.” *The Atlantic Monthly*, Vol. 273 (1994), pp 58.

<sup>114</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 13.

Repeatedly mentioned is the expected disproportionality of the effects that climate change and environmental migration will have on the poorer, developing states around the globe. For this, the three examples chosen will demonstrate a variety of possible effects. Firstly, demonstrating the risk to public security, national security, communal security and human security through collective culture loss, state disappearance, community separation and segregation and population exploitation respectively, is the example of the Pacific Islands. The Pacific Islands are at the focus of much debate in the field, as the impact of climate change in the region is some of the direst, but also most visible. The Pacific Island states, such as Tuvalu and Kiribati, are faced with greater security threats such as human trafficking, cultural disappearance and violence as a result of deteriorating environmental circumstances.<sup>115</sup> The United Nations Office on Drugs and Crime (UNODC) has already marked a rise in human trafficking and sexual exploitation in the Pacific Island region.<sup>116</sup> Arguably here connected to deteriorating environmental circumstances on the islands, and the apparent hostility of other nations to new forms of migration – such as the opposition of Australia and New Zealand to further migrants (further outlined below).<sup>117</sup>

Secondly, further demonstrating the risk to national security, public security and human security through shared regional resource, health and food restrictions and propagation of extremist human exploitation, is Lake Chad. The shrinking of Lake Chad keenly showcases the potential internal stability risks associated with climate change and environmental migrations. As per Kofi Annan, climate change's influence over our ability to sustain life is both a current and future security challenge.<sup>118</sup> This shrinking ability to sustain life is demonstrated by the circumstances of Lake Chad, and the exacerbating effect of climate change and environmental migration on pre-existing societal stressors – particularly, demonstrating well the impact on internal stability, and potential resource competition.

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<sup>115</sup> Elliott, "Climate Migration and Climate Migrants: What Threat, Whose Security?" In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 184-187.

<sup>116</sup> United Nations Office on Drugs and Crime (UNODC), *Transnational Organised Crime in the Pacific: Threat Assessment*, UNODC Research, Pacific Islands Forum Secretariat, 2016. [http://www.unodc.org/documents/southeastasiaandpacific/Publications/2016/2016.09.16\\_TOCTA\\_Pacific\\_web.pdf](http://www.unodc.org/documents/southeastasiaandpacific/Publications/2016/2016.09.16_TOCTA_Pacific_web.pdf) (accessed 01 May 2018).

<sup>117</sup> McAdam, *Climate Change, Forced Migration, and International Law*, 45-48.

<sup>118</sup> Kofi Annan, United Nations Secretary-General, *We the Peoples: The Role of the United Nations in the 21<sup>st</sup> Century. (i.e. Millennium Report)*, (New York: United Nations Department of Public Information, 2000), 55-65.

Thirdly, explicitly highlighting the vast possibility of risk to national security, human security and resource depletion through state and regional tension and cultural and religious divide coupled with political instability and worsening environment concerns, is the Himalayan glacial example. The Himalayan glaciers highlight the immense potential scale, and international nature of environmental migratory events. Smith and Vivekananda suggest that migration, such as could occur here, threatens to be a trigger of violent conflict, especially when stemming from, or surrounding the issue of climate change.<sup>119</sup> Internally and regionally, the areas impacted by the glacial disappearance are prone to violence – and in many cases, neighbouring states are not necessarily on friendly terms with each other. Thus, this portrays the type of environment prone to severe security issues even before the dramatic impact of climate change, and subsequent mass environmental migration.

Important to also appreciate when examining the specific situations above is the influence of the wider international community and international legal frameworks. While the deterioration of environmental conditions will develop independently and have the potential to produce a variety of security concerns – the risk is heightened depending on the reactions of the wider community and international systems in place. As we have already discussed, largely, the legal avenues for greater protection as an involuntary environmental migrant are stifled by the current framework of requirements. This limitation does nothing to stop the situations from occurring however – and as McAdam declares, the danger faced by communities on the move will be worsened by closed or non-receptive migration channels.<sup>120</sup> Essentially, the international framework for the protection of forced environmental migrants is uncontrolled, meaning the legal obligations applicable to states is not clearly defined, allowing for a justifiable grey-zone of inaction.<sup>121</sup> This is not a problem that can be ignored or left to resolve itself in independent or isolated cases, due to the scale, and wide spread nature of climate change and the adjoined potential of migration. As Laczko and Aghazarm state, ‘...there is a pressing need to develop informed strategies that will help ensure that migration that occurs as a result of climate change does not pose humanitarian, economic and security challenges.’<sup>122</sup> Migration itself is a typical survival strategy, however, an unaided

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<sup>119</sup> Dan Smith and Janani Vivekananda, *A Climate of Conflict: The links between Climate change, peace and war*, (Sida, 2008), 16.

<sup>120</sup> Elliott, “Climate Migration and Climate Migrants: What Threat, Whose Security?” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 182.

<sup>121</sup> Ibid, 183. See also, Collectif Argos, *Climate Refugees*.

<sup>122</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 355.

format such as in the current system, relocation could pose a serious security threat.<sup>123</sup> Common forms of danger to form would likely be food and water security issues, along with greater ethnic divisions, violence over resource scarcity, and criminal activity such as migrant smuggling.<sup>124</sup> Clearly differentiating challenges have already developed around the world as a result of unclear international standing, as can be highlighted in the examples to follow.

Firstly, a popular issue of concern: the impact of rising sea levels on small island nations, such as Tuvalu, or the aforementioned Kiribati; secondly, the retreat of life sustaining water in the desert, such as from the Lake Chad Basin; and thirdly, the disappearance of glaciers, and the grim future of the Himalayan water reserve.

The extent of the risk to small island nations is one of the most publicised and investigated slow-onset phenomena threatening to cause human environmental migration. As well as being the most likely to cause imminent external migration – given the obvious point that internal migration would not be possible when an entire state is impacted. This stands in stark contrast with the opposing opinion of many, in claiming that climate stresses will likely only induce internal migration.<sup>125</sup> The reality of being forced to migrate between states in an internationally adverse environment is something that both countries and individuals are being forced to confront already in response to changing natural conditions. The Pacific Island states, such as Tuvalu and Kiribati, are prime examples of this situation.

### *The Disappearing Pacific Islands*

Slow-onset environmental change and degradation has already begun to affect habitability of some low-lying island nations, such as Tuvalu in the Pacific Ocean. It has been expected that Pacific Island countries would likely be the first impacted by climate change and forced to migrate as a result.<sup>126</sup> This should not be considered only a theoretical possibility, for many, it is a practical reality, with rising sea-levels impacting everything from state foreign policy, food and agriculture, economy, habitability of areas and threatening the culture of the island's inhabitants. Over the past 20 years, the Intergovernmental Panel on Climate Change (IPCC)

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<sup>123</sup> Ibid, 267, 381.

<sup>124</sup> Ibid, 267-268.

<sup>125</sup> De Hass in, United Nations Educational, Scientific and Cultural Organisation (UNESCO), Management of Social Transformations Programme (MOST), *Migration as a Development Challenge: Analysis of Root Causes and Policy Implications*, 2017, MOST/REPORTS/2017/1, 9.

<sup>126</sup> Campbell, "Climate-Induced Community Relocation in the Pacific: The Meaning and Importance of Land." In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 57-58.



and the weather observatory on Tuvalu have measured an increase of 0.4 degrees (Celsius) on the ocean's surface – and the implications of this typically manifesting through droughts, major storms, cyclones and coral destruction (or bleaching).<sup>127</sup> Additional to these expectations though, Tuvalu also experienced both top and root soil salinification and general coastal erosion.<sup>128</sup> Helia Vavai of the Tuvalu weather observatory described how in the lower parts of the islands, 'salt water puddles' are forming, while the higher areas which would typically be expected to be suffering from root soil sterilisation as the rising salt water penetrates further, had severely impeded agricultural capacity.<sup>129</sup> As has been repeatedly mentioned in this paper, the element of time is a key limiting factor of environmental refugee protection in the international arena – the often theoretical danger is so far in the future, that even if it is acknowledged, it is not urgent, especially when compared to other migration crises. Vavai however, points out that the damage is occurring at a much faster rate than was previously expected, stating 'At the end of the 1990s, I thought that our archipelago would become uninhabitable within a century. Everything has moved faster since then and I now think our country could disappear in 50 to 80 years.'<sup>130</sup> The danger is then, that this increased pace of climate change will continue – to an extent that our current capabilities are not able to adequately handle. Pre-emptive adaptation of legal frameworks and definitions, in the end, represents that greatest chance to save lives when compared to reactive change. Despite this advanced pace, Garnier draws attention to the efforts made by the locals to mitigate damage, and the desire to remain in their home country.<sup>131</sup> Efforts such as coastal structures built with cement to prevent coastal tidal damage and referencing a discussion with some local children as they explained their future aspirations – wanting to carry on from their families and fish.<sup>132</sup> Quoting a local Tuvaluan, 'We live so close to the ocean that it's as if we were part of it. The place we live determines the way we live.'<sup>133</sup> Demonstrating the threat that permanent forced environmental migration has on cultural life, as well as to life.<sup>134</sup> Though it is legally inaccurate to label environmental migrants as refugees, both categories do share something important – they are both being forced out of their homes, countries and ways of life. Neither refugees nor forced environmental migrants want to leave their homes, many even continuing

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<sup>127</sup> Garnier, "Pacific Ocean: Tuvalu, Polynesian requiem." In Collectif Argos, *Climate Refugees*, 273.

<sup>128</sup> Ibid, 273.

<sup>129</sup> Ibid, 273.

<sup>130</sup> Ibid, 273.

<sup>131</sup> Ibid.

<sup>132</sup> Ibid, 273, 277.

<sup>133</sup> Ibid, 277.

<sup>134</sup> Campbell, "Climate-Induced Community Relocation in the Pacific: The Meaning and Importance of Land." In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 79.

to dream of staying past the inevitable realisation that it is not possible. Arguably even worse for those faced with forced environmental migration when compared to refugees or asylum seekers, that for many there may never be a possibility to return to their countries. Here, the shortfall of simply maintaining the status quo is clear. Though the reservation of the legal community surrounding the acceptance of environmental migrants is easily understandable under the current framework and definitions – the need to change this cannot be overstated. This one example of environmental risk and potential migration alone contradicts many conservative reservations. We are not looking at events that will impact only the next generations, it is something that is happening now; many will face external migration, not just internal displacement; and millions are at risk. As no small task, the Minister of Foreign Affairs of Tuvalu is already attempting to secure a future for his people, so that they can be ‘evacuated.’<sup>135</sup> In this effort, Tuvalu has aggressively sought assistance from the international community legally, politically and diplomatically on both bilateral and multilateral levels – to little avail.<sup>136</sup> Even so far as pushing for the recognition of ‘environmental persecution’ to open the doors of the 1951 Refugee Convention, but this has been met with strong reluctance.<sup>137</sup> As demonstrated for instance by the previously mentioned cases from Australia and New Zealand; whereby migratory claims have been rejected based on difficulties discerning from economic migrants, and limitations established due to legal definitions.<sup>138</sup> Taking a pessimistic view of this, such as the Foreign Minister of Tuvalu does,<sup>139</sup> this is a result of more than just a legal restriction, but also political will to avoid directly addressing environmental migration and stressors. Migration in such a scenario is a sacrifice, an adaptation to uncontrollable changes – and it must be recognised as such, an adaptation strategy of people at risk for any legal standing improvements.<sup>140</sup> Adapting here for survival. While Tuvalu is just one small island nation, it is not alone in this situation – there are many others in the same (life) boat.

Briefly examined already and similarly impacted as Tuvalu, Kiribati face of with the international stigma of migration, and refugee-hood as they are being forced into exile due to actions not of their own.<sup>141</sup> Mentioning Kiribati here is significant also to establish that such

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<sup>135</sup> Garnier, “Pacific Ocean: Tuvalu, Polynesian requiem.” In Collectif Argos, *Climate Refugees*, 279-280.

<sup>136</sup> Ibid, 279-280.

<sup>137</sup> Ibid, 279.

<sup>138</sup> McAdam, *Climate Change, Forced Migration, and International Law*, 45-48.

<sup>139</sup> Garnier, “Pacific Ocean: Tuvalu, Polynesian requiem.” In Collectif Argos, *Climate Refugees*, 279.

<sup>140</sup> McAdam, *Climate Change, Forced Migration and International Law*, 98.

<sup>141</sup> Ibid, 41.

circumstances are not limited to Tuvalu – but rather, many, if not all, small island nations are facing the same or similar changes and consequences. The controversial effects of ‘climate change’ or ‘global warming’ have resulted in the melting of polar ice, dramatically influenced sea levels around the world, and gravely impacted the habitability of low-lying islands. More so than simply representing the impact of climate change on another island, however, the Kiribati example truly portrays the failing of the international community and systems in its obligations to aid those in distress – particularly those in the poorer regions of the world. Ethical, morale, political and to some extent even legal obligations. The people of Kiribati are opposed to being misrepresented as ‘Refugees’ because of the stigma associated with the term suggesting fault or lack of skills.<sup>142</sup> Entirely separate of the irrelevance of the refugee terminology from a legal perspective – but rather as a result of the political and societal stigma associated with it. Essentially resulting in a situation whereby people that are in need of international protection actively seek to avoid one of the most protected statuses because of unfounded societal and political misrepresentation. Worsened by the refusal of the international community to accept blame,<sup>143</sup> or responsibility.<sup>144</sup> As Chomette, Garnier and Raux argue, countries will hide behind the system and definitions in place for people in need of protection in order to justify refusal to help – regardless of the legitimacy of danger.<sup>145</sup> This environmental phenomenon, combined with the minimal support structure of the international framework, can then be further linked to multi-faceted security and social threats. In the Pacific Islands cases, security threats spread across national, communal and human security concerns – such as endangering state sovereignty and cultural life, threatening long-term to permanent community separation, and exposing population to potential trafficking or exploitation.

The Pacific Islands face the most immediate and broad-spectrum threats of any group facing the consequences of climate change and environmentally forced migration. Many island nations are small communities with weak state representation and poor governance.<sup>146</sup> Internally, this makes countries such as Tuvalu and Kiribati (but also others) far more susceptible to climate events than other, larger nations. More so, the small populations of

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<sup>142</sup> McAdam, *Climate Change, Forced Migration and International Law*, 41-43.

<sup>143</sup> *Ibid*, 41.

<sup>144</sup> Collectif Argos, *Climate Refugees*, 16.

<sup>145</sup> *Ibid*, 16.

<sup>146</sup> Elliott, “Climate Migration and Climate Migrants: What Threat, Whose Security?” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 184-185.

islands also place's a heavier significance on any outflowing migration, with each person forced to leave their home and country representative of a greater proportion of the community. While the Pacific States face other security threats as a result of environmental migration, there is a significance placed on the unique danger to cultural destruction in the region. As with many traditional societies around the world, there is a major cultural importance tied to the land and lifestyle for many of the indigenous, with a strong desire from people to remain in their own countries wherever possible.<sup>147</sup> This is also something that was previously mentioned in reference in the Tuvalu example – whereby the lives of the current and future generations are still connected and even centered to the ocean.<sup>148</sup> Often, island life is idealized as a paradise existence to be enjoyed briefly on holidays before returning to our usual existence. For those living there however, it is their heritage, their culture – specifically tied to the identity as a people, and as individuals.<sup>149</sup> In this regard, Lorraine Elliot also makes reference to the work of Oxfam who state, for many island residents (specifically about Micronesia in this instance), cultural loss and alienation as a result of water surges threatening the total disappearance of states is feared utmost.<sup>150</sup> With a human rights backing, culture and the right to one's own cultural development is enshrined in ICESCR (International Covenant on Economic, Social and Cultural Rights).<sup>151</sup> The justiciability of economic, social and cultural rights can only be approached with trepidation in the best of circumstances, its legal applicability is limited as primarily, it isn't the action of states themselves that are threatening the culture. Regardless, it does reinforce the gravity of the danger. As the United Nations Security Council declared in 1992, that after the Cold War, there is a shift away from non-military forms of security concerns.<sup>152</sup> Aside from the risk to culture, forced environmental migration absent of significant international framing also threatens pacific migrators in terms of human trafficking and resource scarcity.<sup>153</sup> Despite

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<sup>147</sup> Elliott, "Climate Migration and Climate Migrants: What Threat, Whose Security?" In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 187.

<sup>148</sup> Garnier, "Pacific Ocean: Tuvalu, Polynesian requiem." In Collectif Argos, *Climate Refugees*, 277.

<sup>149</sup> Ibid, 277. See also, Elliott, "Climate Migration and Climate Migrants: What Threat, Whose Security?" In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 187.

<sup>150</sup> Elliott, "Climate Migration and Climate Migrants: What Threat, Whose Security?" In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 187.

<sup>151</sup> General Assembly, United Nations, *International Covenant on Economic, Social and Cultural Right*, 1966, A/RES/21/2200A (XXI), art. 1, 3 and 15.

<sup>152</sup> Security Council, United Nations (UNSC), *Note by the President of the Security Council*, 1992, UN Doc S/23500, 3.

<sup>153</sup> Kurt M. Campbell, et al, eds., *The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change*, Center for Strategic and International Studies and Center for a New American Security, 2007, 8. See also, Elliot, "Climate Migration and Climate Migrants: What Threat, Whose Security?" In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 182.

any such grandiose statement from the international community however, little of substance has been done to combat this cultural loss outside of the affected region itself. Among the Pacific States however, there are both individual (national) and regional efforts to both mitigate and reconcile the potential impact of any future large-scale migrator event.

Well aware of their situation, Pacific Island nations have strongly voiced their position in both international and regional forums. As an example again, the Minister of Foreign Affairs of Tuvalu has specifically called out Western nations for their environmental impact and focused specifically on larger neighbouring nations (Australia and New Zealand) when seeking help.<sup>154</sup> It has become the job of the Ministry to try to create the possibility of an existence as close as possible to their current lifestyle, after the decline of the Tuvalu Islands.<sup>155</sup> This is not just an attempt to migrate into a comfortable setting, but it is a fight for the survival of a unique cultural group. While this example is just of Tuvalu, there are many others island nations in similar scenarios. All low-lying islands and coastal regions are at risk of mass environmentally forced migration.<sup>156</sup> The Niue Declaration from the Pacific Islands Forum Secretariat demonstrates a multi-national, regional recognition of climate change itself, and also of adjoined population movement.<sup>157</sup> The Pacific Island Forum is comprised of nations in the Pacific region, including Kiribati, Tuvalu, Australia and New Zealand.<sup>158</sup> The Declaration recognises the threat that climate change has on state survival, through direct and indirect consequences, such as involuntary migration.<sup>159</sup> As such, this regional development demonstrates a local push for danger mitigation, regardless of the international position on environmentally motivated migration. As McAdam declares, definitions and solutions in this field are better off coming from national and regional developments than they are through international legal routes.<sup>160</sup> However, major nations involved, specifically Australia and New Zealand, are reluctant to specifically acknowledge their responsibility (legal or ethical) to help in relocation. As the Foreign Minister of Tuvalu stated, these countries are quite content with ‘a narrow definition [of refugee] that suits them just fine,’

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<sup>154</sup> Garnier, “Pacific Ocean: Tuvalu, Polynesian requiem.” In Collectif Argos, *Climate Refugees*, 279.

<sup>155</sup> Ibid, 279.

<sup>156</sup> Ibid, 279.

<sup>157</sup> Pacific Islands Forum Secretariat, “The Niue Declaration on Climate Change,” *Pacific Islands Forum Secretariat: Forumsec*. 2008. <https://www.forumsec.org/the-niue-declaration-on-climate-change/> (accessed May 05, 2018).

<sup>158</sup> Ibid.

<sup>159</sup> Elliott, “Climate Migration and Climate Migrants: What Threat, Whose Security?” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 186.

<sup>160</sup> Glahn, “‘Climate Refugees’? Addressing the International Legal Gaps – Part II,” 1-2.

which can be used as a tool of rejection rather than support.<sup>161</sup> Which is not an unsubstantiated claim – with cases going back to 2000 in Australia and New Zealand, whereby migration claimants from Tuvalu, Kiribati and Tonga were rejected based on failing to meet the persecutory requirements – never mind the conditions involved.<sup>162</sup> This form of practice exacerbates cultural, and human threats in the region – as people void of legitimate options resort to other means to move or sustain themselves. As a report from the United Nations Office of Drugs and Crime in 2016 depicts, cases of sex exploitation, human trafficking and migrant smuggling is already on the rise in the Pacific region.<sup>163</sup> With specific reference to increased activity because of declining economic prospects, and reduced access to resources.<sup>164</sup> A situation worsened by climate change and subsequent migration. As the report finds, cases of border refusals in the Asia Pacific are also already on the rise<sup>165</sup> (such as the above Australia or New Zealand examples) – but regardless of the success of migration, the increased rate is indicative of the change.

Given no other choices, environmentally forced migration will occur with, or without substantive or established protections. Climate change and associated migration are and will continue to worsen the smuggling in the Pacific area – especially in the current status quo. Away from threats to state sovereignty (and even existence) and culture loss, there is also a substantial human security aspect to environmental migration. Either as a prime or secondary motivator to movement, it can only worsen pre-existing dangers of at risk areas. The growing impact of environmental change on migration as a prime motivator is not limited to ocean coastline states however, as the communities of Lake Chad demonstrate. With further national, public, communal and human security implications in connection to resource and economic loss can also be seen in the Lake Chad region.

#### *Water Scarcity in the Sahel: Lake Chad*

Lake Chad is a rich source of water, irrigation and food for the nations that border it. However, over the past 40 years, the Lake has reduced in size by 90% as a result of diminishing rainfall in its catchment area, growing populations along its banks, and gradual

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<sup>161</sup> Garnier, “Pacific Ocean: Tuvalu, Polynesian requiem.” In Collectif Argos, *Climate Refugees*, 279.

<sup>162</sup> McAdam, *Climate Change, Forced Migration, and International Law*, 45-48.

<sup>163</sup> United Nations Office on Drugs and Crime (UNODC), *Transnational Organised Crime in the Pacific: Threat Assessment*.

<sup>164</sup> *Ibid*, 35-37.

<sup>165</sup> *Ibid*, 35-36.

desert-creep from the Sahara Desert to its north.<sup>166</sup> The Lake once directly bordered four countries, Niger, Nigeria, Chad and Cameroon; now, only Chad and Cameroon have direct access to the Lake. The Chari River, that provides the lake with 90% of its water, today flows with less than half the amount of water it did in the 1960s.<sup>167</sup> The Lake supports a huge population across four countries, primarily Niger, Nigeria, Chad and Cameroon – and produce goes further to markets in other countries such as the Central African Republic and Libya.<sup>168</sup> There are up to 2 million people living on the lake’s shoreline and islands directly, and much greater indirect population of 45 million in the surrounding basin and major metropolitan centres.<sup>169</sup> This means the scale of potential displacement in this situation alone is immense and is another singular event that is affecting multiple countries and increasing the likelihood of cross border migration. Aude Raux claims that in the 1960s, locals would refer to Lake Chad as an ‘ocean’ due to its size, whereas now the inhabitants endure the effects of a far smaller body of water, often murky with mud.<sup>170</sup> As Mr. Mbatha from the Lake Chad Basin Commission (LCBC) states, ‘in the 1960s, the lake was an average of six metres deep, and the water was clear. Today, the monsoon has diminished and arrives later... Now the depth is only 1.5 metres, and the mud is making it very dirty.’<sup>171</sup> It is estimated that following the current trend, the Lake will be gone in 20 years.<sup>172</sup> So, similar to the situation in Tuvalu and other low laying Pacific Islands, the timeframe that people are already dealing with is much shorter than is often claimed. While it is unrealistic to suggest that in the event of continued severe drought impeding the water level of the lake, that over 40 million people will migrate for greener pastures – it is not unrealistic to imagine that of the 45+ million people that would be affected, without alternative, hundreds of thousands if not more could face displacement, especially of those living direct on the Lake. In fact, many already do demonstrate this. As the Lake Chad Basin Commission points out, the system is incredibly vulnerable to changes in water supply – and any changes are likely to result in migration to follow the water.<sup>173</sup> Many fishermen, herders and farmers already migrate across national

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<sup>166</sup> Aude Raux, “Chad: Blarigau, low tide in Lake Chad.” In Collectif Argos, *Climate Refugees*, 93-95.

<sup>167</sup> Lake Chad Basin Commission (LCBC), Cameroon, Central African Republic, Chad, Libya, Niger, and Nigeria, *Lake Chad Development and Climate Resilience Action Plan*, 2015, <http://documents.worldbank.org/curated/en/489801468186879029/pdf/102851-v2-WP-P149275-Box394847B-PUBLIC-v2-main-report-Lake-Chad-Development-and-Action-Plan-English.pdf> (accessed 20 March), 93.

<sup>168</sup> Ibid, IV.

<sup>169</sup> Ibid, IV.

<sup>170</sup> Raux, “Chad: Blarigau, low tide in Lake Chad.” In Collectif Argos, *Climate Refugees*, 93.

<sup>171</sup> Ibid, 97.

<sup>172</sup> Ibid, 93.

<sup>173</sup> Lake Chad Basin Commission (LCBC), Cameroon, Central African Republic, Chad, Libya, Niger, and Nigeria, *Lake Chad Development and Climate Resilience Action Plan*, IV.

borders to maintain access to the water, or exploit the rich soil exposed by the retreating lake.<sup>174</sup> This is representative of an endemic problem of the region; as rainfall dwindles, land becomes more and more arid, and is followed by the expansion of the Sahara Desert. Resulting in large increases in population densities, as people migrate to follow the water – all with access to limited and falling supplies. Essentially rooting the problem once again with the effects of gradual climate change. As the Lake Chad Basin Commission states, the population dependent on the lake and its produce is expected to double in size over the next 30 years.<sup>175</sup> A reminder, that this is almost the same timeframe that is given to the lake before it disappears entirely. So, while this may still be a problem for the future, the potential scale of impacted people is only growing. The example of Lake Chad is however much more important than just representing growing scale and shortening timeframe – the political landscape and national stability of the states affected in this scenario is far more tenuous than that of the previous Pacific Island examples.

The environmental migrants that already move to surrounding areas of the lake are being exposed to growing health concerns, as well as giving rise to potentially violent situations.<sup>176</sup> As previously mentioned, the reduced size of the lake and lower depths means that water is more exposed to the mud at the bottom of the lake and is far more susceptible to pollution.<sup>177</sup> This has resulted in greater spreading of disease amongst locals, such as a spike in cholera, which represents a multi-tiered problem for migration.<sup>178</sup> Firstly, as people migrate into the lake's basin, an increasing amount of people become exposed to, and affect the environment – potentially worsening it. Secondly, this is likely also to develop into a migration motivation factor – for example, as access to clean water becomes harder, or as disease spreads. Similar then to the example of discerning between environmental migration and economic migration. There is then the question as to whether it would be movement based on environmental conditions, or health. Additional to health, changing climate and environment exacerbates this already politically and socially fragile area. As the Lake Chad region was struck with severe violence already in the 2014-2015 period through the Boko Haram movement –

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<sup>174</sup> Raux, “Chad: Blarigau, low tide in Lake Chad.” In Collectif Argos, *Climate Refugees*, 95-96.

<sup>175</sup> Lake Chad Basin Commission (LCBC), Cameroon, Central African Republic, Chad, Libya, Niger, and Nigeria, *Lake Chad Development and Climate Resilience Action Plan*, IV.

<sup>176</sup> Ibid, IV. See also, Raux, “Chad: Blarigau, low tide in Lake Chad.” In Collectif Argos, *Climate Refugees*, 97.

<sup>177</sup> Lake Chad Basin Commission (LCBC), Cameroon, Central African Republic, Chad, Libya, Niger, and Nigeria, *Lake Chad Development and Climate Resilience Action Plan*, IV-V.

<sup>178</sup> Raux, “Chad: Blarigau, low tide in Lake Chad.” In Collectif Argos, *Climate Refugees*, 97.



worsened by dense population and resource scarcity.<sup>179</sup> While the Boko Haram group itself isn't related to climate change, nor as a direct result of it, the environmental conditions that are here propagate such extremism. This kind of relationship between security and environmental migration will be discussed in greater depth below. The environmental changes connected with Lake Chad are likely to manifest in multiple ways to cause human movement in the future, to some extent. Again, as with the cases in the Pacific, Lake Chad is an issue for the international community – not just for those directly impacted. The Basin Commission (LCBC) itself represents a cooperative effort of six regional states to mitigate environmental damage, and better manage resources as the population grows.<sup>180</sup> While the Basin Commission (LCBC) already demonstrates an international endeavor to bring change and development to the region, greater responsibility could be taken by the broader international community to aid with a responsive, proactive effort. From direct preventative development such as supporting the Commission, but also progressing towards accepting some responsibility for climate change (to some extent) and the events caused by this change, as well as protection for those people forced to move. Somewhat uniquely, the environmental conditions of the surrounding region and of Lake Chad itself demonstrate both push and pull motivators – likely to first attract, and later force away peoples. Security of the region will, like the Pacific example, once again be impacted. With the slow collapse of the Lake ecosystem influencing national security, public health, community integrity and human safety.

Similar to in the Pacific Island scenario, the deteriorating conditions in the Lake Chad region threaten to worsen already existing problems. In the recent past, Lake Chad specifically, and the surrounding region (outside of Chad alone), has experienced significant violence as a result of militant groups such as the above mentioned Boko Haram.<sup>181</sup> At least in the context of the Lake Chad Basin, the Commission (LCBC) poses the possibility that the drastically increased population growth coupled with a decrease in facilities such as occupation and health, have perpetuated an active environment for recruitment.<sup>182</sup> As water levels across the Sahel and northern parts of the Sub-Saharan plummet, more and more people migrate to water

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<sup>179</sup> Lake Chad Basin Commission (LCBC), Cameroon, Central African Republic, Chad, Libya, Niger, and Nigeria, *Lake Chad Development and Climate Resilience Action Plan*, IV-V.

<sup>180</sup> Ibid, IV-V.

<sup>181</sup> Ibid, 18-19.

<sup>182</sup> Lake Chad Basin Commission (LCBC), Cameroon, Central African Republic, Chad, Libya, Niger, and Nigeria, *Lake Chad Development and Climate Resilience Action Plan*, 16.

sources – and the lake is on the front lines of this migration. As Jacques Lemoalle from France’s Development Research Institute states in regard to Lake Chad, ‘the presence of this body of water in the Sahel is in fact exceptional,’ and is of great migratory appeal in the region.<sup>183</sup> So the problem is two-fold. Many seeking water, migrate to the Basin area as a result of wide-spread regional drought, but the increased growth and population surrounding the lake is, along with the drought itself, further tapping the lake dry. As the water disappears, harvesting of crop and fishery produce dwindles – threatening the source of sustenance of the livelihoods of the lake’s inhabitants; and the more it disappears, the greater the risk of conflict.<sup>184</sup> Additional to impacting the economic and food security of the Basin area, increased migration leading to overpopulation has further health implications. Mixing with the potentially violent atmosphere, depleting water from the lake has resulted in much of its vast banks becoming muddy, with pollution causing the spread of disease. Briefly, as already mentioned, instances of cholera as a result of polluted water supplies, overpopulation and high temperatures are also on the rise.<sup>185</sup> Even absent a direct link between climate change and environmental migration to security or conflict, there are clear connections with resource scarcity. Resource scarcity coupled with ethnic mingling, economic retreat and the absence of a broader international framework is destabilising.<sup>186</sup>

Forced environmental migration, either to or from the Lake Chad region, is a security concern for individuals and states alike. Environmental migration is broad, vast, unpredictable and ultimately uncontrollable. It is this inability to control environmental migration that is the threat.<sup>187</sup> Broadly speaking, climate change and migration has the potential, when looking at the predictions, to impact upwards of billions, and near every aspect of life.<sup>188</sup> The current paradigms (legal and political), however, ignore the scale, and do not adequately allow for support at any substantial level.<sup>189</sup> Aside from everything else, the Lake Chad region, as an underdeveloped region, already has numerous problems on many levels. Climate change will worsen these problems. Environmental migration (immigration

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<sup>183</sup> Raux, “Chad: Blarigau, low tide in Lake Chad.” In Collectif Argos, *Climate Refugees*, 96.

<sup>184</sup> Ibid, 96.

<sup>185</sup> Ibid, 99.

<sup>186</sup> Elliot, “Climate Migration and Climate Migrants: What Threat, Whose Security?” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 182.

<sup>187</sup> Ibid, 183.

<sup>188</sup> Walter Kälin, “Conceptualising Climate-Induced Displacement.” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 81.

<sup>189</sup> Elliot, “Climate Migration and Climate Migrants: What Threat, Whose Security?” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 183.

and emigration) will put added pressure on already strained systems. While a restrictive international protection framework for migratory movements will allow the broader world community to avoid involvement. There are a vast variety of types of environmental migration, some forced, others not; some primary, some secondary – but regardless of whether the reasoning behind migration fits into the established parameters of what is an acceptable justification for such movement as to qualify as involuntary or not, it will still happen. Without opening our metaphorical arms to help, problems all over the world, such as those faced by the inhabitants of the Lake Chad Basin, will only get worse. The scale, and the variety of impact must void any hesitation to the contrary. Continuing the escalation of the potential impact of environmental and climate change, is the disappearance of glacial water sources in the Himalayas, its effect on nearby nations in both the short and long-term, and again the destabilising nature of these changes.

### *Himalayan Mountain Glaciers*

The Himalayan Mountain range spans five countries, from Pakistan in the west to China and Bhutan in the east – and provides these and other countries with an immense amount of fresh glacial water each year. Using Nepal as an example, we see a worrying trend – the glaciers are melting faster than they are replenishing. In 1985, the Dig Tsha Lake which held between 6-10 million litres of melted glacial water, exploded in the Nepalese Himalaya flooding the Khumba Valley below and devastating the inhabitants and infrastructure.<sup>190</sup> Over the decades prior to this, ice from nearby mountain glaciers had been melting at a far greater speed than usual, which resulted in too much pressure building behind the lake's natural walls, resulting in the waters explosive exit.<sup>191</sup> Though this disastrous flood was many decades ago, it is but representative of the far greater danger that continues to worsen in the Himalayas today. The Intergovernmental Panel on Climate Change (IPCC) has marked a substantial retreat in glacial walls, further represented through the growth of mountain lakes, and describes the Himalayan glaciers as the fastest receding glaciers in the world.<sup>192</sup> This represents a multi-form danger; a short-term risk to life through chance of disastrous flooding events, and the greater long-term effect of a dwindling water source. There may be more water in the short

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<sup>190</sup> Aude Raux, "Nepal: Himalayas, lost horizons." In Collectif Argos, *Climate Refugees*, 310-312.

<sup>191</sup> Ibid, 309-311.

<sup>192</sup> Intergovernmental Panel on Climate Change, (IPCC), *Climate Change 2007: Working Group II: Impacts, Adaptation and Vulnerability – The Himalayan Glaciers*, IPCC 4<sup>th</sup> Assessment Report, 10.6.2. [https://www.ipcc.ch/publications\\_and\\_data/ar4/wg2/en/ch10s10-6-2.html](https://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch10s10-6-2.html) (accessed May 12, 2018.) See also: Raux, "Nepal: Himalayas, lost horizons." In Collectif Argos, *Climate Refugees*, 311.

term, but the glaciers will eventually completely melt. At current rates (retreating at a rate of 10-60 metres annually),<sup>193</sup> glacial area is expected to shrink by 80% by 2035,<sup>194</sup> leading to one third of all glaciers to disappear entirely by 2050.<sup>195</sup> The Dig Tsha glacial lake collapse was by no means a non-repeatable, isolated event. Demonstrating the scale of danger, there are 15,000 glaciers spread over the 30,000square kilometres of the Himalayas.<sup>196</sup> With approximately 200 lakes already at risk of exploding in the Nepalese portion of the region alone – representing an immediate risk to local residents, and demonstrating the danger to water supplies. The United Nations Environment Programme (UNEP) has marked the Himalayas as one of the regions with the fastest increasing average temperatures, exceeding the global average.<sup>197</sup> Over the period between 1982 and 2006, the total mean temperature increase in the area was 1.5 degrees Celsius.<sup>198</sup> Altogether meaning that sooner rather than later more lakes will explode in a similar fashion to the Dig Tsha incident over three decades ago – though given the time that has passed, they are likely to be on a larger scale than before. Portraying this danger is a new lake, Imja Tsho, that is now raising concern in Nepal as it threatens to follow the same course as Dig Tsha.<sup>199</sup> This emphasises the fact that the risk to the region is imminent and real, and that the concept of environmental migration in response to climate change is a reality now, and not just for the decades to come.

Dangerous glacial lakes continue to develop and grow in the Nepalese Himalayas, such as the recently created lake Imja Tsho, threatening both damaging short and long-term consequences. The lake Imja Tsho has only come into existence over the past 40 years as a result of nearby glacial melting – with the noted Island Peak Glacier melting up to an astonishing 74 metres a year (between 2001 and 2006), well above the average for the Himalayas.<sup>200</sup> With local meteorologists connecting the event to climate change,<sup>201</sup> while others go so far as to blame developed nations specifically for their current situation, and

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<sup>193</sup> Raux, “Nepal: Himalayas, lost horizons.” In Collectif Argos, *Climate Refugees*, 311.

<sup>194</sup> Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Working Group II: Impacts, Adaptation and Vulnerability – The Himalayan Glaciers*.

<sup>195</sup> Raux, “Nepal: Himalayas, lost horizons.” In Collectif Argos, *Climate Refugees* 311.

<sup>196</sup> Ibid, 312.

<sup>197</sup> Janaka Pathaka. “Measuring Glacier Change in the Himalayas.” *United Nations Environment Programme (UNEP): Environment for Development*. 2012.

[https://na.unep.net/geas/getUNEPPageWithArticleIDScript.php?article\\_id=91](https://na.unep.net/geas/getUNEPPageWithArticleIDScript.php?article_id=91) (May 12, 2018).

<sup>198</sup> Ibid.

<sup>199</sup> Raux, “Nepal: Himalayas, lost horizons.” In Collectif Argos, *Climate Refugees*, 312-313.

<sup>200</sup> Ibid, 314.

<sup>201</sup> Ibid, 314. See statement by *Om Ratna Bajracharya*.

prospective dangers.<sup>202</sup> While climate change is often a contentious topic, the correlation between human-influenced global warming and global glacial melt is generally accepted as a clear indication of the effects of climate change.<sup>203</sup> Meaning with the assumption that the developed nations are again circumstantially responsible, whether they can be held accountable or not. In the short term, other than having access to higher volumes of water, Himalayan locals are at risk of major flood events coinciding with the various risk levels of lake collapses. Which is an accurate prediction, given the number of lakes, glaciers and poor accessibility of locations.<sup>204</sup> More so, however, this situation is the perfect example of how short term environmental and climate changes can be indicative for larger, long-term consequences. As Raux quotes the ICIMOD (International Centre for Integrated Mountain Development) in saying, ‘the Himalayas are the worlds water tower.’<sup>205</sup> Supplying water to the nine largest rivers in Asia, including some of the largest rivers in the world, such as the Ganges (India), the Yantze (China), the Indus (Pakistan), and the Mekong (South East Asia).<sup>206</sup> Some statistics suggesting glacial melt water is responsible for up to 70% of the Ganges flow during the dry season.<sup>207</sup> While more comprehensive estimates suggest that Himalayan melt water contributes to 30% of flow in the eastern region, 50% in the central and western regions, and up to 80% in the Karakoram region (north-west of the Himalayas.)<sup>208</sup> See figure 1 below.

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<sup>202</sup> Raux, “Nepal: Himalayas, lost horizons.” In Collectif Argos, *Climate Refugees*, 314. See statement by *Tenzing Tashi Sherpa*.

<sup>203</sup> Pathaka, “Measuring Glacier Change in the Himalayas.”

<sup>204</sup> Ibid. See also, Collectif Argos, *Climate Refugees*.

<sup>205</sup> Raux, “Nepal: Himalayas, lost horizons.” In Collectif Argos, *Climate Refugees*, 316. See also, Intergovernmental Centre for Integrated Mountain Development (ICIMOD). “Glaciers.” *Intergovernmental Centre for Integrated Mountain Development*. <http://www.icimod.org/?q=16909> (May 15, 2018).

<sup>206</sup> Pathaka, “Measuring Glacier Change in the Himalayas.”

<sup>207</sup> Raux, “Nepal: Himalayas, lost horizons.” In Collectif Argos, *Climate Refugees*, 316.

<sup>208</sup> Pathaka, “Measuring Glacier Change in the Himalayas.”

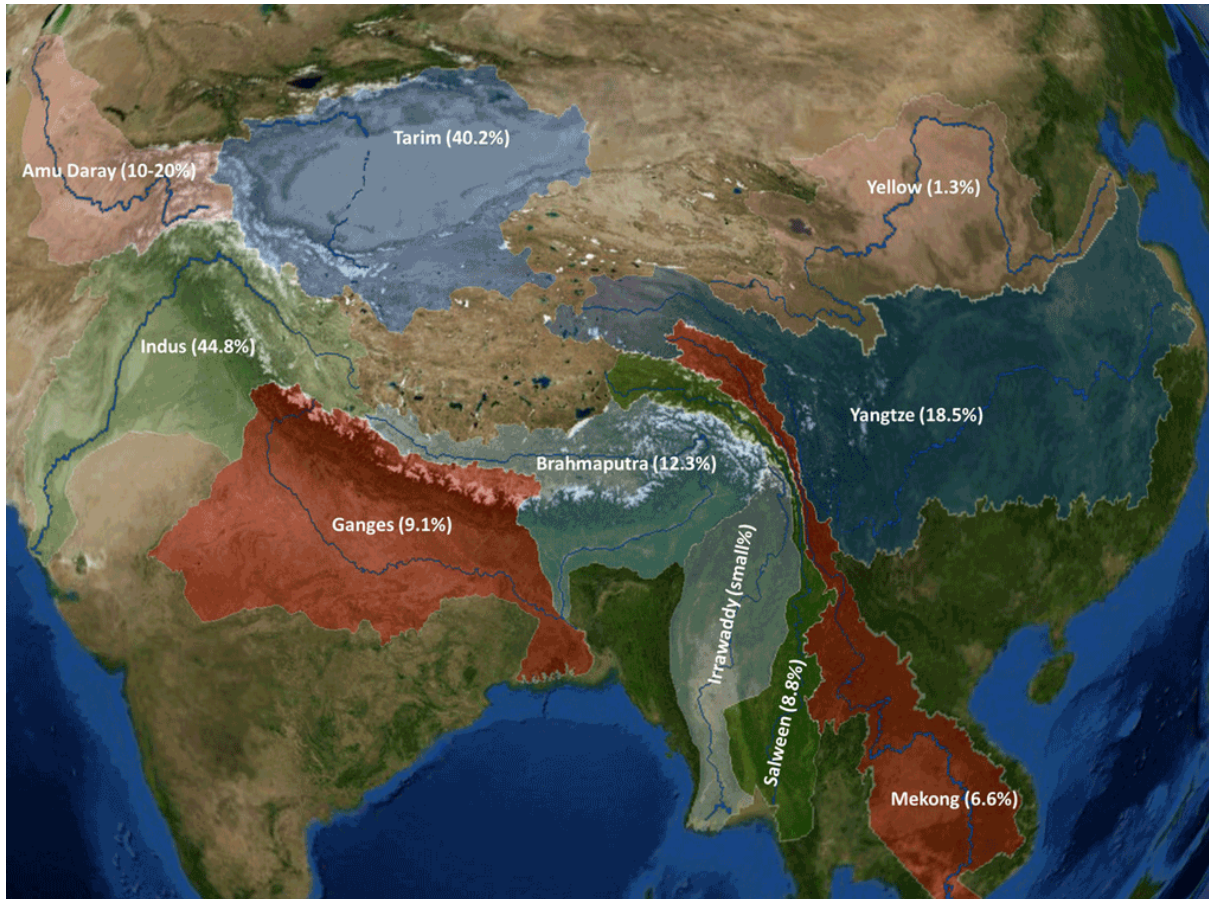


Figure 1: Predicted percentage of glacial melts contributing to basin flows in the Himalayan basins<sup>209</sup>

The International Panel on Climate Change (IPCC)<sup>210</sup> and the ICIMOD<sup>211</sup> predict up to 2 billion people could be affected by water shortages within the next century as a result reduced supply from glaciers. The IPCC further expects many of the regional rivers to become seasonal rivers, with high flow only following the monsoon seasons.<sup>212</sup> While again, there is no indication of what percentage of people would migrate in such an event, the possible scale of movement is unprecedented. Migration, as a result of water scarcity however, isn't unprecedented in either number of migrators or size of the humanitarian crisis (if many are unable or unwilling to move.) Across the African Sahel, major drought and lack of freshwater

<sup>209</sup> Pathaka, "Measuring Glacier Change in the Himalayas." Sourced from, Xu, J., Grumbine, R.E., Shrestha, A., Eriksson, M., Yang, X., Wang, Y and Wilkes, A., 'The Melting Himalayas: Cascading Effects of Climate Change on Water, Biodiversity, and Livelihoods.' 2008. *Conservation Biology*, 23 (3), 520-530.

<sup>210</sup> Raux, "Nepal: Himalayas, lost horizons." In Collectif Argos, *Climate Refugees*, 317. See also, Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Working Group II: Impacts, Adaptation and Vulnerability – The Himalayan Glaciers*.

<sup>211</sup> Intergovernmental Centre for Integrated Mountain Development (ICIMOD), "Glaciers."

<sup>212</sup> Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Working Group II: Impacts, Adaptation and Vulnerability – The Himalayan Glaciers*.

has forced millions of Sahel Africans to migrate (estimated over 10 million).<sup>213</sup> Millions again crossing international borders, such as the 1.4 million hosted by the Ivory Coast from migration in the 1960s and 1970s.<sup>214</sup> Consider here also the case explored above, with the situation surrounding Lake Chad, and migrators to and from its influence. Lopez claims approximately 70 million people are affected by drought and lack of water in the Sahel.<sup>215</sup> If the same trend follows water shortages around the Himalayan region, hundreds of millions could migrate. Although in the central and eastern regions the impact would likely be substantially less given secondary water sources (e.g. monsoon rains). The western arid landscapes are not dissimilar to the conditions experienced in Africa. With the UNEP expecting a far greater impact on areas such as Afghanistan, Uzbekistan and parts of Pakistan, Western China and the Tibetan Plateau.<sup>216</sup> Impacting food as well as water availability, creating large scale migration, including movement across international borders similar to the Sahel, and potentially severely destabilising for the region.<sup>217</sup> The Himalayan example does highlight the interrelatedness of short-term disaster events and long-term consequences, such as migration or deeper root problems – even if part of the short term effects are opposite to the long term. Security wise, the Himalayan glacial disappearance is dangerous for a myriad of different reasons. Potentially impact national security, public security, human security as well as hindering economic and food stability of the region. National and human security particularly will be examined in detail below, as this case exemplifies the scale of danger surrounding climate change’s long-term effects, and related human movement.

The Himalayan glacial melt threatens to create a variety of serious security concerns for nations surrounding it, especially but not limited to those that rely on the melt water for sustenance. We have explored how the glaciers themselves are in danger of disappearing, with the potential to alter the environment of not just the Himalayas themselves, but also putting at risk the human systems that rely on it. Each of the examples discussed in this paper demonstrate an important aspect of climate change, environmental migration, and risks of uncontrolled migration. The Himalayan example though, from a political point of view, has

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<sup>213</sup> Lopez, “The Protection of Environmentally-Displaced Persons in International Law”, 370-371.

<sup>214</sup> Ibid, 370-371.

<sup>215</sup> Ibid, 370.

<sup>216</sup> Pathaka, “Measuring Glacier Change in the Himalayas.”

<sup>217</sup> Such as through the interaction between climate migration and security suggest by, McLemen, *Climate and Human Migration: Past Experiences, Future Challenges*, 210.

the greatest possibility to manifest violently – specifically in the long term. In the short term as already discussed, the glacial melt does create mountain lakes that have, and could again, collapse and flood large parts of surrounding areas and valleys, such as in Nepal. Which the 1985 example of the Dig Tsho glacial lake collapse demonstrates – or today, where it is the lake Imja Tsho that is threatening to do the same.<sup>218</sup> While the Imja Tsho already contains significantly more water than Dig Tsho, and even threatens significant tourist routes, the scale of danger pales in comparison to the possible long-term repercussions.<sup>219</sup> The lakes are representative of the disappearance of a water source for rivers that feed into some of the largest countries in the world, as well as some of the most densely populated areas. As Janak Pathaka highlights, the melt water provides for roughly 1.3 billion people – with an even greater dependence between regional monsoon seasons.<sup>220</sup> This therefore impacts water supply, as well as food and sanitation.<sup>221</sup> Worsening the situation, much of the region involved in this developing crisis is politically unstable, either internally or internationally. Around the Karakoram region, Pakistan, Afghanistan and Uzbekistan share a large source of water from the Tibetan Plateau Glacier, with its melt water feeding their rivers.<sup>222</sup> Internal stability in these countries are already turbulent, without the added stress of large scale environmental migration as a result of resource depletion. Perhaps as a greater concern, is on or around the culturally, economically, politically, ethnically and religiously vast Indian sub-continent – and how the nations will respond to the development of any long term, international and cross border crisis. For example, India and Pakistan have a deep running history of opposition with one another, and relevantly, are both nuclear powers, while India and Bangladesh share much of the same water through their rivers.<sup>223</sup> While the problem of water scarcity and food shortage is substantially problematic on its own, of added significance here is not just the likelihood of related migration, but what the reaction to that migration would be.

Climate change, and any subsequent form of involuntary human movement in the South Asia region has substantial destabilising and divisive potential. This potential instability is at such

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<sup>218</sup> Raux, “Nepal: Himalayas, lost horizons.” In Collectif Argos, *Climate Refugees*, 309-313.

<sup>219</sup> Ibid, 313-316.

<sup>220</sup> Pathaka, “Measuring Glacier Change in the Himalayas.”

<sup>221</sup> Ibid.

<sup>222</sup> Ibid.

<sup>223</sup> See respectively, Lowell Dittmer, ed., *South Asia's Nuclear Security Dilemma: India, Pakistan and China*, (London and New York: Routledge, 2004) and Smith and Vivekananda, *A Climate of Conflict: The links between Climate change, peace and war*, 18.



an extreme because of the already tenuous relations in the region. For this reason, it is of such significance for the developed nations and international community to come together and appreciate the disproportionate impact of climate change and migration on certain world regions. Now, taking the situation between Bangladesh and India as an example, there is already evidence of tension growth and resource scarcity. Bangladesh has a growing population, inflated by migration in the past, and as a state is at a higher risk of damage by natural disaster because of its largely low-lying landmass.<sup>224</sup> Resource scarcity has already resulted in internal violence, as well as some conflict spilling into neighbouring Indian regions.<sup>225</sup> Demonstrating a disturbing backdrop for future cooperation, the Indian Farakka Barrage is a development scheme from the 1970s that has negatively impacted the circumstances in Bangladesh.<sup>226</sup> The Farakka Barrage has diverted water flow along the Ganges River to run down Indian tributaries, rather than the natural balance which would take it into the Bangladeshi Delta.<sup>227</sup> The Ganges is a river that already receives a significant portion of its flow from the Himalayan melt water – upwards of 70% outside of the monsoon seasons.<sup>228</sup> Taking this into consideration and the dwindling water resource in the Himalayan Mountains, we start to appreciate how violence could erupt further. Smith and Vivekananda already estimate that the problem with water security here (and accompanying risk of violent conflict) directly involves a possible 35 million people – and migration out of Bangladesh into India is already happening as a result.<sup>229</sup> Meaning further migration will be incited as climate change worsens the situation in Bangladesh directly as well as the evaporation of the water source at its root. Much of this migration is already illegal – fueling the fire – and it will remain illegal, given the global perspective on forced environmental migration and its lack of solid legal support. Migration out of deteriorating circumstances is best as a survival and adaptation method – with global support.<sup>230</sup> Without it, many may be forced to remain in poor conditions, creating a worse humanitarian crisis regardless of migration.<sup>231</sup> Similarly explosive, is the chance of conflict along the Pakistan-India border.

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<sup>224</sup> Smith and Vivekananda, *A Climate of Conflict: The links between Climate change, peace and war*, 16.

<sup>225</sup> Ibid, 16.

<sup>226</sup> Ibid, 16.

<sup>227</sup> Ibid, 16.

<sup>228</sup> Raux, “Nepal: Himalayas, lost horizons.” In Collectif Argos, *Climate Refugees*, 316. See also, Intergovernmental Centre for Integrated Mountain Development (ICIMOD), “Glaciers.”

<sup>229</sup> Smith and Vivekananda, *A Climate of Conflict: The links between Climate change, peace and war*, 16.

<sup>230</sup> Barnett and Webber, “Migration as Adaptation: Opportunities and Limits.” In McAdam, ‘Climate Change and Displacement: A multidisciplinary Perspective.’ 55.

<sup>231</sup> Ibid, 40.

Indo-Pakistani relations are notoriously fragile, and this fragility represents an added complexity. Without delving too far into the details of the tense relationship between these two countries, we can still recognise in general, the potential. Pakistan and India are, among the examples here, the first nations that have had substantial open hostility between each other in recent decades, and at the same time have also nuclear capabilities.<sup>232</sup> While there is no indication that environmental migration or climate change itself would result in a nuclear conflict, it does represent a new height in which escalation could potentially reach. To explore the landscape of such a possibility, we do not need to look far. Since its formation in 1947 (Pakistan), there have been four wars between India and Pakistan, and extensive border skirmishes.<sup>233</sup> As recently as in the 1990s, Pakistan has allegedly deployed (prepared) nuclear weapons as reaction to military posturing from India.<sup>234</sup> These nations are nuclear capable – and have demonstrated an alarming readiness to bring them to arms. Connecting this to environmental degradation, and in this instance, the depletion of water supplies, is the Indus River.

Himalayan glacial melt water provides an enormous proportion of water to the Indus River – and unlike rivers such as the Ganges, the significance of the contribution is year-round.<sup>235</sup> In the Western Himalayas and Karakoram regions, melt water contributes to between 50-80% of water flow – with the Indus River itself being reliant on the meltwater for upwards of almost 45% of its water yearly.<sup>236</sup> The Indus runs through the length of Pakistan, providing much in the way of irrigation and overall water capacity for the country. As Janak states, the Indus can be seen as Pakistan’s ‘lifeline’, providing freshwater for one of the world’s largest irrigation networks and directly feeding (to some extent) 90% of the countries agriculture.<sup>237</sup> Pakistan is also one of the world’s largest cotton producers, whose cotton plantations also depend on the flow from the Indus.<sup>238</sup> Even further demonstrating its importance and fragility, is the fact the Indus River also provides power in the form of hydropower to both India and Pakistan.<sup>239</sup> To summarise then, the Indus River provides food, water, power (electricity) and economic goods for Pakistan. For a moment, stepping back into the world of

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<sup>232</sup> Dittmer, *South Asia’s Nuclear Security Dilemma: India, Pakistan and China*, 113.

<sup>233</sup> *Ibid*, 113.

<sup>234</sup> *Ibid*, 114.

<sup>235</sup> Pathaka, “Measuring Glacier Change in the Himalayas.”

<sup>236</sup> *Ibid*.

<sup>237</sup> *Ibid*.

<sup>238</sup> *Ibid*.

<sup>239</sup> *Ibid*.

security, we must touch on the disputed region of Kashmir. To this day, the Kashmir region is split between Indian administration and Pakistani administration – with many of the border incidents between the two nations occurring in this mountainous region of the Himalayas.<sup>240</sup> It is here, that the climate threat and environmental migration threat truly meet the security concern. As an agricultural, economic and infrastructure lifeline to Pakistan, the Indus River flows first through the disputed region of Kashmir, before running downstream to the rest of the country.<sup>241</sup> See figure 2 below.

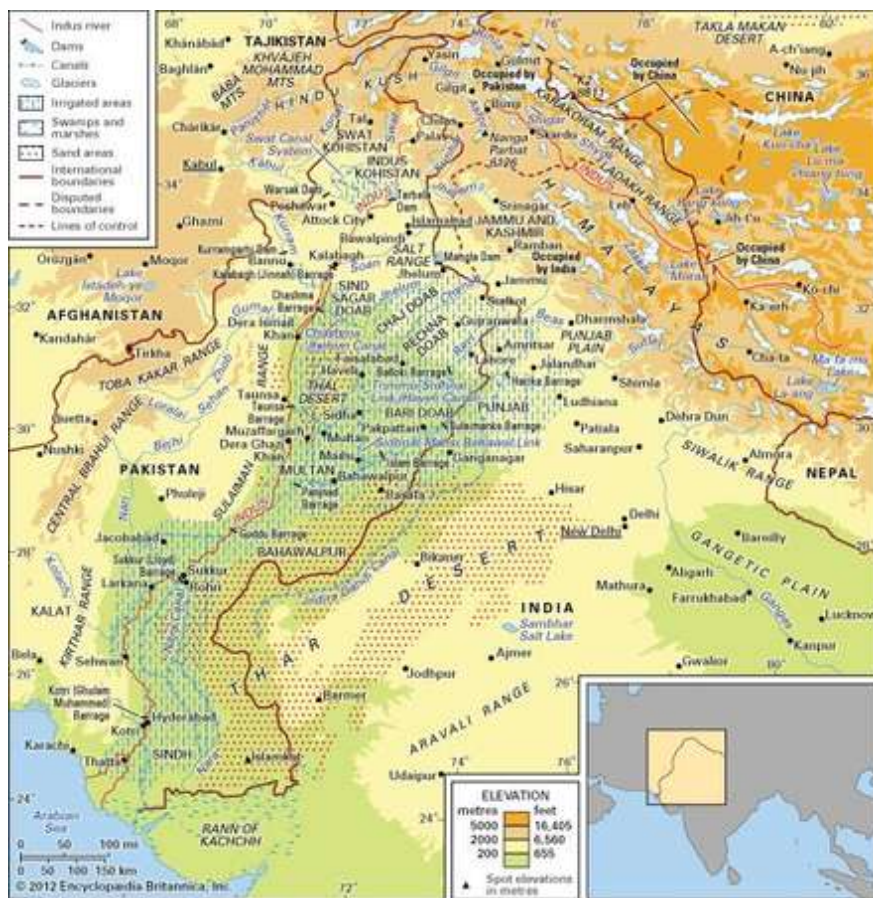


Figure 2: The Indus River Basin and its drainage network (Encyclopaedia Britannica, Inc.)<sup>242</sup>

Given substantial changes to the flow of the Indus River, as predicted by the decreasing sizes of the source glaciers, coupled with the hostile history between Pakistan and India, especially in the Kashmir region, there is a genuine concern for regional security. Even before migration, conflict could swell in the region of Kashmir in attempts to guarantee the flow of

<sup>240</sup> Dittmer, *South Asia's Nuclear Security Dilemma: India, Pakistan and China*, 114-115.

<sup>241</sup> Deryck O. Lodrick, Nafis Ahmad, "Indus River: River, Asia," *Encyclopaedia Britannica, Inc.*, <https://www.britannica.com/place/Indus-River> (accessed June 01, 2018).

<sup>242</sup> *Ibid*, The Indus River Basin and its drainage network (Encyclopaedia Britannica, Inc.)

water as far upstream as possible. While, if such flow is hindered, migration away from the depleting river would be expected – similar to the circumstances in the previously mentioned Bangladeshi situation, where people are already migrating. Potentially then, a substantial forced migratory wave across the Indo-Pakistani border could occur, which is in itself already heavily militarised.<sup>243</sup> Then there is the risk, as McAdam declares, of resource scarcity coupled with ethnic (and in this case religious) melding that is further destabilising.<sup>244</sup>

The glacial melt in the Himalayas, and particularly along the Indus River, represent the significant scale of potential violence and security danger that threaten to be perpetuated by uncontrolled environmental migration. An already unstable and volatile scenario represents a great threat to regional as well as national and security. Conflict between states developing as a result of resource scarcity, or competition for a singular resource has the greatest potential to spiral out of control. Endangering national security, public and human safety, as well as political, social and individual integrity. This example of the Himalayan region typifies this concern perfectly, while again highlighting the impact on developing countries especially.

#### *Sudden-Onset Events*

Though it is beyond the primary focus of this paper, the theoretical impact of sudden-onset environmental events (disasters) as a long-term migration motivator must be recognised – as can be seen in the above Himalayan example. Manifesting in two ways, short-term events can transition into long-term or permanent consequences either by a single event resulting in individuals relocating, by the increased frequency of events reducing the habitability of an area, or a sudden event can be indicative of swelling future problem; and climate change is expected to cause such situations. It is anticipated that natural disaster-prone areas, especially coastal regions susceptible to multiple kinds of disasters, are going to receive more frequent and more intense events.<sup>245</sup> Consider here also the above-mentioned relation between India and Bangladesh, the diversion of the Ganges River (the Farakka Barrage)<sup>246</sup> and its impact on Bangladesh's susceptibility to disasters. Just as with the long-term events, disasters will

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<sup>243</sup> Dittmer, *South Asia's Nuclear Security Dilemma: India, Pakistan and China*, 113. In reference to border clashes.

<sup>244</sup> Elliot, "Climate Migration and Climate Migrants: What Threat, Whose Security?" In McAdam, *Climate Change and Displacement: A Multidisciplinary Perspective*, 182.

<sup>245</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 248. See also, Lopez, "The Protection of Environmentally-Displaced Persons in International Law", 371 and Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Working Group II: Impacts, Adaptation and Vulnerability – The Himalayan Glaciers*.

<sup>246</sup> Smith and Vivekananda, *A Climate of Conflict: The links between Climate change, peace and war*, 16.

impact poorer countries to a greater degree than the rich. Not necessarily because of their location, though regions such as the Caribbean and Asia suffer from frequent damaging storms for instance, but also because of low or poor developmental. As Mathew Scott suggests, poor countries are more vulnerable because of lacking infrastructure often coupled with rapid urban growth.<sup>247</sup> With an overwhelming 98% (or, 262 million) of people globally affected by natural or climate disasters between 2000-2004 in developing countries.<sup>248</sup> For example, in 2012, 31 million people were displaced by possible climate change influenced natural disasters around the world – not including droughts, or slow-onset events such as those already discussed.<sup>249</sup> In 2017, Hurricane Maria battered the already wounded Caribbean Islands in September, affecting the lives of over 16 million people in a single event.<sup>250</sup> Whilst communities may recover from the damage, some people may not return from their displacement.<sup>251</sup> Though internal relocation should always be a priority, international migration (leading into permanent displacement) after a large scale event is likely to always occur at some level or another.<sup>252</sup> With events, such as that in the Caribbean in 2017, whereby countries or states are affected entirely,<sup>253</sup> meaning displacement cannot always be internal. Given the possibility to return home, regardless of whether those displaced will want to or not, permanent migration will be voluntary – and more likely than not, because of more reasons than just environmental. As Matthew Scotts claims, health, resources and mobility are more likely prime motivators.<sup>254</sup> Therefore the extent of international protection is and is justifiably limited in such cases.

Beyond this, however, natural disasters are also likely to impede overall living conditions after repeated events. With climate change coupled with natural disasters likely to result in

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<sup>247</sup> Mathew Scott, “Natural Disasters, Climate Change and Non-Refoulement: What scope for Resisting Expulsion under Article 3 and 8 of the European Convention on Human Rights,” *International Journal of Refugee Law*, Vol.26, No.3 (2014): 407.

<sup>248</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 261.

<sup>249</sup> Scott, “Natural Disasters, Climate Change and Non-Refoulement: What scope for Resisting Expulsion under Article 3 and 8 of the European Convention on Human Rights,” 405.

<sup>250</sup> International Organisation for Migration, IOM, *The Caribbean: Hurricanes Irma, Maria and Jose Response*, 2017, Situation Report: 20 September 2017, [https://reliefweb.int/sites/reliefweb.int/files/resources/Caribbean%20Hurricane%20Response\\_Sitrep%20%20-%202020%20Sept\\_FINAL.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/Caribbean%20Hurricane%20Response_Sitrep%20%20-%202020%20Sept_FINAL.pdf) (accessed May 20, 2018), 1.

<sup>251</sup> Scott, “Natural Disasters, Climate Change and Non-Refoulement: What scope for Resisting Expulsion under Article 3 and 8 of the European Convention on Human Rights,” 408.

<sup>252</sup> *Ibid*, 409.

<sup>253</sup> International Organisation for Migration, IOM, *The Caribbean: Hurricanes Irma, Maria and Jose Response*.

<sup>254</sup> Scott, “Natural Disasters, Climate Change and Non-Refoulement: What scope for Resisting Expulsion under Article 3 and 8 of the European Convention on Human Rights,” 409.

‘conditions adverse to human beings.’<sup>255</sup> Over the past 30 years, the frequency of damaging and disaster level storms has increased by up to 300% - allowing for a certain level of discrepancy, given statistical inaccuracies due to past poor data collection.<sup>256</sup> Progressing to the point where continued events impede habitability by becoming normal, or routine; and people cannot be expected to endure disasters, repair and rebuild with the expectation that it is all temporary. While in many cases, disaster events such as storms, floods, and fires will be isolated incidents, and any permanent migration could likely be facilitated internally, there must be a preparedness for the cases where it is not viable, or whereby events progress from sudden to long-term (such as with the above Himalayan example).

### Ways forward

Having established now the severity and risks of climate change related forced migration, the final section of this paper will seek to explore the question of where to go from here. To approach and attempt to answer this, we will explore possibilities in two categories, being short and long-term solutions. It is important here to note that this is not something that should be considered a, ‘what to do now’ vs ‘what to do later,’ but rather ‘what to do now for now’ and ‘what to do now for later.’ This differentiation is significant, because effort has to be made now for better circumstances to be possible tomorrow, it is not viable to just wait and hope for improvement. While interim measures of sorts must be explored for application today, because as we have attempted to highlight, climate change induced involuntary migration is already present in the world – and those already impacted need assistance.<sup>257</sup> Climate change will impede the enjoyment of fundamental human rights all over the world, but it will be disproportionately felt by the poorer, developing nations.<sup>258</sup> It is however, up to all of us to share responsibility and aid those forced to move because of uncontrollable environmental or climate changes – no matter how disconnected from it we feel.

### *Short-Term*

Many prominent authors and academics have explored to some degree in their works, the popular idea of incorporating environmentally forced migrants into pre-existing migrant

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<sup>255</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 248.

<sup>256</sup> Ibid, 248, 259.

<sup>257</sup> Elliot, “Climate Migration and Climate Migrants: What Threat, Whose Security?” In McAdam, *Climate Change and Displacement: A Multidisciplinary Perspective*, 182.

<sup>258</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*.

protection frameworks.<sup>259</sup> Such as has been explored earlier in this paper. Either by direct inclusion such as through additional protocol, or sub verse expansion of the restrictive elements or definitions in conventions – for example, the persecutory requirement of the Refugee Convention.<sup>260</sup> As Scott states, a focus on internal relocation in the short-term should be the priority, as it is the route most likely to offer the greatest level of support to the widest array of people affected.<sup>261</sup> Additionally, in many instances such as is illustrated by the Pacific example, it is often preferential for people to remain within their home nation where and whenever possible. Where internal relocation is not possible however, international protection and movement must be considered. Of particular importance with the prediction that international migration will rise as conditions worsen, again such as in the cases of Pacific Islands, where the disappearance of states will obviously prevent internal relocation. As previously analysed in the earlier International Human Rights Law and Refugee Convention section however, the legal options in the current international systems are limited in their applicability for cases. Explained by McAdam though, working within the existing framework is the best chance for any form of legal short-term protection because of the clear opposition of the international forum to adopt any new model of migrant protection status – at least in the current atmosphere.<sup>262</sup> Outside of the possibilities for individuals to seek a status through the international mechanisms, states should continue to develop and promote bilateral agreements and relations with other specific nations with the capacity and capability to aid in the event of a large scale incident. This kind of agreement can be seen already through the attempts of Tuvalu to open discourse with Australia and New Zealand.<sup>263</sup> The real pressure in the short-term window is on potential recipient nations, such as Australia and New Zealand, who must broaden their perspectives of what constitutes dire circumstance and appreciate their position as a pivotal part of a solution; while also combating the effects of climate change and that additionally represents a method to garner international prestige and good-will. The need for protection is clear, but the capacity to grant protection (given the

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<sup>259</sup> For example, see McAdam, *Climate Change, Forced Migration and International Law*, Glahn, “Climate Refugees”? Addressing the International Legal Gaps – Part II”, and Lopez, “The Protection of Environmentally-Displaced Persons in International Law.”

<sup>260</sup> Glahn, Benjamin, “Climate Refugees”? Addressing the International Legal Gaps,” *International Bar News*, 63, No.3/News 17 (2009).

<sup>261</sup> Scott, “Natural Disasters, Climate Change and Non-Refoulement: What scope for Resisting Expulsion under Article 3 and 8 of the European Convention on Human Rights,” 409.

<sup>262</sup> Roger Zetter, “Protecting People Displaced by Climate Change: Some Conceptual Challenges.” In McAdam, *Climate Change and Displacement: A multidisciplinary Perspective*, 149.

<sup>263</sup> Garnier, “Pacific Ocean: Tuvalu, Polynesian requiem.” In Collectif Argos, *Climate Refugees*, 279.

potential scale) is absent.<sup>264</sup> While varied isolated cases may have success in achieving a protection status, or successful migration, it is not a reliable avenue – especially for those facing long-to-permanent international resettlement. In essence, the greatest focus must be on the developing long-term international capacity for protection, and stable avenues to achieve said protection.

### *Long-Term*

It is now one of the greatest tasks of the global community to begin making strides to establish a framework to combat the effects of climate change and protect forced environmental migrators. As stated above, the capacity of protection is limited in this regard – far less than what is needed. Following on from this then, the creation of additional and greater capacity must be a priority going into the future; the inadequate protections available now are not suited for the anticipated future scale of impact.<sup>265</sup> Capacity with a greater emphasis being allocated to international migration routes, in-depth participation of developed nations in the effects of climate change, and most importantly, a heightened standard of cooperation at a global level. Involving the acceptance of the developed world of both their responsibility as prime contributors to climate change, as well as the obligation to protect those affected – with special attention given to poorer, more susceptible neighbors and communities.<sup>266</sup> Moving beyond the platitudes, there are practical approaches to achieve this.

In order to achieve an efficient long-term strategy to respond to climate change and migration, the international community must move beyond the limitations and confines of the current legal format. While there is space for limited success to be achieved through already established frameworks, such as the discussed Refugee Law or Complementary Protections of Human Rights law – it is not suitable for the scale of impact of climate change on human movement. Working within the status quo of the current forum is more likely to endanger or erode the systems themselves than reach a meaningful standard of coverage. As McAdam suggests, incorporation into such international systems puts the original target group at risk.<sup>267</sup> For instance, attempting to incorporate environmentally forced migrants into a

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<sup>264</sup> Zetter, “Protecting People Displaced by Climate Change: Some Conceptual Challenges.” In McAdam, *Climate Change and Displacement: A multidisciplinary Perspective*, 150.

<sup>265</sup> *Ibid*, 150.

<sup>266</sup> McAdam, *Climate Change, Forced Migration and International Law*, 52.

<sup>267</sup> *Ibid*, 43.



protection system through an amendment or an additional protocol risks diverting resources from other afflicted peoples and undermining the established framework.<sup>268</sup> Also, while an independent convention on climate change and those affected by it (and their protection) would be ideal, it is not a realistic aim in the current social-political world climate.<sup>269</sup> Therefore, before significant international legal changes can be attempted, root political change and initiatives must be invested into. A perfect example of this, is for broader involvement in the Nansen Conference, and the realisation of the Nansen Principles.<sup>270</sup> The principles set out by the conference attempt to fill a gap in the international framework, especially when considering international movement – in essence, answering what Laczko and Aghazarm state, is a pressing need for informed strategies to help those who are and will migrate due to climate change.<sup>271</sup> The Nansen Conference establishes 10 Principles ‘to guide responses to some of the urgent and complex challenges raised by displacement in the context of climate change...’<sup>272</sup> While all of the principles are relevant, those of particular interest to this discussion, are the 4<sup>th</sup> and 9<sup>th</sup> Principles. Demonstrating the international aspect of climate change and associated human movement, the 4<sup>th</sup> Principle stresses the importance of international cooperation. Principle 4 states:

When national capacity is limited, regional frameworks and international cooperation should support action at national level and contribute to building national capacity, underpinning development plans, preventing displacement, assisting and protecting people and communities affected by such displacement, and finding durable solutions.<sup>273</sup>

This principle is especially prevalent given the discussed expectation of disproportionality in the impacts of climate change on developing nations. As highlighted in all of the example situations in this paper, climate change, migration and the coinciding dangers are shared across borders and threaten a vast portion of the world. International collaborative effort and initiatives are required to respond effectively to climate change and its impacts – especially

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<sup>268</sup> McAdam, *Climate Change, Forced Migration and International Law*, 43.

<sup>269</sup> Zetter, “Protecting People Displaced by Climate Change: Some Conceptual Challenges.” In McAdam, *Climate Change and Displacement: A multidisciplinary Perspective*, 149.

<sup>270</sup> Gahre, *The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century*.

<sup>271</sup> Laczko and Aghazarm, *Migration, Environment and Climate Change: Assessing the Evidence*, 355.

<sup>272</sup> Gahre, *The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century*, 5.

<sup>273</sup> *Ibid*, 5. See Principle IV.

its effects on regions fragile to population movements.<sup>274</sup> Although some regional progress has been made, such as the discussed Niue Declaration or the Lake Chad Basin Commission, more is needed to increase their prominence and the visibility of climate related concerns through specific and intended dialogue. As McAdam suggests, climate reasoning must be explicitly outlined to allow for its intended protection.<sup>275</sup> The 9<sup>th</sup> principle reinforces this international aspect, declaring:

A more coherent and consistent approach at the international level is needed to meet the protection needs of people displaced externally owing to sudden-onset disasters. States, working in conjunction with UNHCR and other relevant stakeholders, could develop a guiding framework or instrument in this regard.<sup>276</sup>

While admittedly, this principle is focused on those impacted by sudden-onset disaster events, a broader approach encompassing long-term events will be required, and beneficial for the future. Importantly, the international community must build such a consistent system of protection to ensure a broader, encompassing protection network – as opposed to the current systems circumstantial nature. Ultimately, the aim must be to be able to provide different, suited responses to the different manifestations of displacement and migration.<sup>277</sup> Focus must firstly be to alleviate the suffering that causes migration; secondly, to provide protection to those who do migrate; and thirdly, evolve from the international perspective, so that migration is viewed as both an adaptation method and a survival response.<sup>278</sup> By admitting environmental discourse into a broader dialogue,<sup>279</sup> and normalising its terminology, intended tangible protection systems can be constructed.<sup>280</sup> Regardless of the current low figures of people being forced to migrate externally due to environmental issues, there are still people in need of help falling through the gaps – and that number will only grow.<sup>281</sup> As summarised from the Nansen Conference by Christian Gahre, ‘international law

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<sup>274</sup> Barnett and Webber, “Migration as Adaptation: Opportunities and Limits.” In McAdam, *Climate Change and Displacement: A multidisciplinary Perspective*, 55.

<sup>275</sup> McAdam, *Climate Change, Forced Migration and International Law*, 54.

<sup>276</sup> Gahre, *The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century*, 5. See Principle IX.

<sup>277</sup> *Ibid*, 10.

<sup>278</sup> *Ibid*, 10.

<sup>279</sup> Zetter, “Protecting People Displaced by Climate Change: Some Conceptual Challenges.” In McAdam, *Climate Change and Displacement: A multidisciplinary Perspective*, 150.

<sup>280</sup> Gahre, *The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century*, 14.

<sup>281</sup> *Ibid*, 14.

should facilitate political action, as opposed to constituting a pretext for inaction.<sup>282</sup> Which has been occurring around the world, whereby people in need are being turned away because their plight is yet to be official specified or legally recognised.<sup>283</sup> A final substantive take-away from the Nansen Conference is the suggestion to build from the Guiding Principles of Internal Displacement, an international framework of protection.<sup>284</sup> Although the Guiding Principles for IDP's has not been specifically addressed in this paper because of its obvious focus only on internally displacing events, it does provide an established foundation from which to create further protection.

There are substantial portions of the Guiding Principles of Internal Displacement from which an external framework could be established. Sections 3, 4 and 5 for instance establish standards for displacement response that can be effectively transferred to international displacement events. Key principles such as Principles 11 (1,2), 12, 15 (b, d) and 18 seek to enforce the protection of migrants by the state they are in from situations threatening the enjoyment of their human rights (11.1 and 18), protection from exploitation (11.2) - such as labor and sexual exploitation – and the prevention of additional security risks, such as the targeting or segregation of migrants (12).<sup>285</sup> Additionally, Principles 24.2 and 29 (1, 2) reinforce the responsibilities of the state to provide assistance without room for diversion, and that obligation goes beyond simple protection from the harmful event itself to include the recovery (i.e. relocation/resettlement) process itself.<sup>286</sup> So, while the Guiding Principles are targeted for internal events, it does establish standards of protection and support suitable for the response to mass migration events – and transferable to an international setting.<sup>287</sup> Furthermore, unlike other international treaties and protection mechanisms, climate and environmental events are explicitly (though not solely) recognised, and thus legitimate.<sup>288</sup> In the long-term then, producing a standardised international protection system, such as through pre-existing mechanisms would be ideal. Though a significant global shift towards

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<sup>282</sup> Gahre, *The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century*, 14.

<sup>283</sup> See McAdam, *Climate change, Forced migration and International law*, 54 [regarding Canadian Attorney General], and Garnier, “Pacific Ocean: Tuvalu, Polynesian requiem.” In Collectif Argos, *Climate Refugees*, 279 [regarding Australia’s response to Tuvalu.]

<sup>284</sup> Gahre, *The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century*, 14.

<sup>285</sup> Office for the Coordination of Humanitarian Affairs (OCHA), United Nations (UN), *Guiding Principles on Internal Displacement*, 6-10.

<sup>286</sup> *Ibid*, 13-15.

<sup>287</sup> Gahre, *The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century*, 14.

<sup>288</sup> For example, see: Office for the Coordination of Humanitarian Affairs (OCHA), United Nations (UN), *Guiding Principles on Internal Displacement*, Principle 6.

environmental concerns is needed first. Applying a theoretical legal development in this direction to the three cases explored in this paper, the improvement is clear.

For the Pacific Island case, an international system of protection based on the Guiding Principles of IDP would be substantially beneficial. Particularly in reference to the Principles 24.2, 29 (1,2) and 11.2. Such as in the repeatedly mentioned instance of Australia and New Zealand rejecting migrants from the Pacific Islands, the Principles 24.2 and 29 (1,2) would oblige the two nations to offer protection as a logical safe haven for migrators. Increasingly potent, given the defined protection from migrant exploitation as set out in Principle 11.2. In regard to the Lake Chad scenario, Principles 11.1 and 18 would promote the protection of migrators across uncontrolled situations by the state they are in, regardless of status. Given the wealth and capabilities of states here, the involvement of the international community here would be needed – and help combat the related economic strain. While Principles 11.2 and 12 could be utilised to engage state and international forces to protect migrants from extremist exploitation and violence, as has been employed by Boko Haram in the past.<sup>289</sup> In the Himalayan scenario, Principle 11.2 is the most important – as it would ensure protection from (further) violence, migrant exploitation or segregation. This protection from segregation and isolation is especially weighted in this scenario, given the tender regional relationships and the associated risks of cultural or religious targeting. While Principles 24.2 and 29 (1, 2) would oblige the recipient nation (such as in the Bangladesh to India example) to protect migrants from the environmental or climate event itself, while also providing resettlement where necessary. All of these situations however, would benefit from a high degree of international involvement. Especially in order to prevent exploitation and segregation. In this way, the Guiding Principles of IDP's in conjunction with the Nansen Principles (Principle 9) provides a strong basis to build a broader framework for environmental migrant protection – through monitoring, involvement and commitment.

### Conclusion

This paper has set out to explore the topic of environmental migration and its relationship with climate change and security. The purpose of this paper has been to highlight severe limitations at an international level to the protection and assistance of new and growing forms

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<sup>289</sup> Lake Chad Basin Commission (LCBC), Cameroon, Central African Republic, Chad, Libya, Niger, and Nigeria, *Lake Chad Development and Climate Resilience Action Plan*, 18-19.

of migrants (environmental/climate migrant,) emphasise the danger of the status quo to both the discussion and issue. Hopefully demonstrating why multi-tiered change, or adaptation, is so needed. While also taking into consideration and investigating the stagnation of the environmental migrant dialogue as well. Meaningful research, development and discussion are all stifled by simply issues such as terminology – it is very difficult to appreciate statistics and arguments from multiple origins because there is always a risk of differing definitions. Even when the same term is used, whether it be environmental migrant, climate refugee, or environmentally displaced person, there is no guarantee that the same definition is assigned the term between authors. Aside from being an underdeveloped field of discussion (though perhaps growing), this paper has also identified numerous other tangible points of concern within topic of environmental migration.

When considering the legal aspect, this paper has come to a similar conclusion as many others in the field. That while some such as Aurelie Lopez, and Jane McAdam explore the application of some International Human Rights Law with environmental migrant cases, it is clear that it is not reliable nor consistent – not in its current format.<sup>290</sup> Individual migration cases may be able to argue for aid such as via the complementary protection systems of many legal human rights treaties. The time restrictions associated with pre-emptive movement, limitations of persecution and the inhibited acceptance of environmental motivators accumulate and result in a system incapable of handling mass human movement due to environmental or climatic events. Linking with the legal constraints, are the associated security risks. Showcasing the theoretical consequences of this status quo are the three cases of the Pacific Islands, the Lake Chad region and the Himalayan region. Each, to one degree or another, these cases show the potential for climate change to instigate human movement on a large scale. Additionally, that such movement is not only a possibility anymore – with thousands already seeking permanent external relocation. While climate change is a global phenomenon, it will be felt at its harshest by the developing world,<sup>291</sup> which has been highlighted by our examples.

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<sup>290</sup> See: McAdam, *Climate Change, Forced Migration and International Law*, and Lopez, “The Protection of Environmentally-Displaced Persons in International Law.”

<sup>291</sup> Barnett and Webber, “Migration as Adaptation: Opportunities and Limits.” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 54-55.

This pressure on the developing world is a substantial take-away from this research because it has a further knock-on effect on the other issues. Firstly, it demonstrates the significance of advocating for international development of this field – such as through protection statuses for migrants crossing borders, obligations for relocation and resettlement in dire cases and a standardised practice globally. Secondly, revolves around what Robert A. McLemen calls the ‘threat multiplier’ characteristic of climate change and linked human movement.<sup>292</sup> This refers to the ability for deteriorating climate and environmental conditions to worsen conditions and exacerbate pre-existing dangers. Which the the three examples explored here demonstrate. And thirdly, is the ability to both prepare and respond to climatic changes or human movement. If much of the future potential movement is forced to remain internal due to the status quo remaining unchanged, then there will undoubtedly be a humanitarian crisis regardless – as the developing nations will not be able to facilitate all those in need.<sup>293</sup> With lower resources and underdeveloped infrastructure already heightening the risk for many countries.<sup>294</sup> While this topic of climate change and environmental migration does not need to be securitized, the security implications must be considered – especially as the risks only worsen by maintaining the established status quo.

Across the Pacific Islands, Lake Chad region and Himalayan region examples we examine a variety of security issues that are being or will be amplified by the effects of climate change and human movement. Security risks spreading across national, public, communal and human issues. In the Pacific Islands, climate change and uncontrolled environmental migration has a negative impact on the national, communal and human security of Island inhabitants. With the uncontrolled status quo of international movement here increasing the likelihood of family and community separation – especially as a concern given the chances of catastrophic loss of habitability in the island life. Subsequently here also resulting in the destruction of culture, as with many cultures, Island culture such as on Tuvalu, is tied to its people, their collective community, and their traditional habitat. Migrant exploitation and human trafficking is also increasing in the region. The isolation of Pacific Islands already makes external migration and movement difficult, but with the absence of a controlled international environmental migration avenue, trafficking and human exploitation is and will

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<sup>292</sup> McLemen, *Climate and Human Migration: Past Experiences, Future Challenges*, 213.

<sup>293</sup> Barnett and Webber, “Migration as Adaptation: Opportunities and Limits.” In McAdam, *Climate Change and Displacement: Multidisciplinary Perspectives*, 40.

<sup>294</sup> Smith and Vivekananda, *A Climate of Conflict: The links between Climate change, peace and war*, 16.

continue to rise.<sup>295</sup> The conditions and deteriorating situation of the Lake Chad region marks similar risks. While the Lake Chad water shortage is a significant environmental problem on its own, it has been worsened by external events as well. Events such as mass droughts in the Sahel, and gradual desertification along the Southern Sahara – which causes human migration in search of the life essential water of Lake Chad.<sup>296</sup> Overpopulation in the broader Lake Chad region has resulted in national, public, communal and human security issues. With the people travelling from multiple countries to harvest from the Lake and surrounding fertile land, often separating communities and family – while simultaneously pollution and disease are worsened. Importantly with the Lake Chad example, is the effect that climate change and environmental migration has on exacerbating extremism. With potential increased activity (such as kidnapping) of extremist groups such as Boko Haram.<sup>297</sup> The Himalayan scenario demonstrates the potential of several extremes. Most importantly, is the long-term consequences that climate change and glacial melt can have on millions of people, over multiple countries, cultures and religions. With a high danger to worsen regional relations between nations and representing a dire threat to human security. The India-Bangladesh, and India-Pakistan examples being the primary examples of this. Portraying the highest risk of conflict between nations, and the greatest number of potential victims of violence and competition for scarce essential resources.

Climate change and environmental migration are dangerous, and growing problems for the world. In order to be able to combat the effects of climate change in the future, development strides are needed to break the political and legal deadlock of the current status quo. While it is true that climate change and environmental migration are greater concerns for tomorrow than today – tomorrow is approaching sooner than expected. For some, it has already arrived. The status quo here is potentially deadly; solution cannot wait for the problem. Notable advancements to combat the restrictive nature of the status quo as portrayed in this paper have been made, with particular reference to the UN General Assembly and UN Human Rights Council (HRC). In 2013, the UN General Assembly establishes environmental factors

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<sup>295</sup> See: United Nations Office on Drugs and Crime (UNODC), *Transnational Organised Crime in the Pacific: Threat Assessment*.

<sup>296</sup> For Sahel droughts and desertification, see Collectif Argos, *Climate Refugees*, or Lopez, “The Protection of Environmentally-Displaced Persons in International Law.”

<sup>297</sup> Lake Chad Basin Commission (LCBC), Cameroon, Central African Republic, Chad, Libya, Niger, and Nigeria, *Lake Chad Development and Climate Resilience Action Plan*, IV-V, 18-19.

and climate change as legitimate reasons for forced migration.<sup>298</sup> While more recently, the UN HRC has made substantial recommendations to the world community based on research by the Office of the High Commissioner for Human Rights.<sup>299</sup> Calling for, among other things, ambitious action to mitigate risks to migrants, and close the protection gap in which environmental migrants fall through.<sup>300</sup> While such efforts represent substantial strides in the needed direction, more is yet required to legally obligate states and active groups. Given the potential scale of human movement and variety of risk, the chance cannot be taken that such unreinforced cries fall on deaf ears.

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<sup>298</sup> Regan, “International Migration: Human Rights and Development Dimensions,” 146. Referring to the Secretary General’s report to the UN General Assembly in July 2013.

<sup>299</sup> General Assembly, United Nations. *Addressing human rights protection gaps in the context of migration and displacement of persons across international borders resulting from the adverse effects of climate change and supporting the adaptation of mitigation plans of developing countries to bridge the protection gap*. 2018, Human Rights Council, A/HRC/38/21.

<sup>300</sup> *Ibid.* 16-17.



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