

# Climate Change and Population Displacement

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## Introduction

The September 2015 issue of *Working Notes* had as its main theme, ‘Caring for our Common Home’,<sup>1</sup> exploring aspects of our relationship with the natural environment, while providing a strong moral argument for taking urgent action in response to threats to our environment, including those arising from climate change.

Simply put, climate change is the altering of the Earth’s climate due to human-induced atmospheric and terrestrial changes, with significant implications for weather patterns, biodiversity, agriculture, and economic and social systems in general.

This article opens with an outline of the main ramifications of climate change, followed by a focus on the relationship between climate change and population displacement. The status under international law of people displaced by climate change is considered next, and the article concludes by indicating some of the key issues involved in preventing and responding to climate-related displacement.

## Impact of Climate Change

The Fifth Assessment of the Intergovernmental Panel on Climate Change (IPCC), published in 2013, concluded that climate change will likely result in changes to regional climate patterns, and increases in the frequency and severity of extreme weather events, the most threatening of which will include hurricanes, flash floods, heat waves, extreme cold spells, and drought.<sup>2</sup>

The implications of these extreme weather events, and of climate change generally, are multiple and far-reaching.<sup>2,3</sup> For example, the expected disappearance of some of the world’s most important glaciers as a result of increased temperatures in regions such as the Himalaya-Hindu Kush mountain ranges will impact directly on the 2.2 billion people living in these regions who depend on seasonal glacier melt for their water supply.

Low-lying coastal regions, island nations and semi-arid regions are particularly vulnerable to

the adverse effects of climate change. For low-lying coastal regions, climate change will likely result in an increased occurrence of storm and cyclone activity, flooding, rising sea levels and salinity intrusion.<sup>4</sup> Many of these regions are densely populated: indeed, fourteen of the world’s seventeen largest cities are located in such areas, placing over 50 per cent of the global population at risk of coastal flooding and erosion.<sup>5</sup>

In the case of Bangladesh, for example, about half of its 150 million population lives in areas which are less than five metres above sea level. The consequent vulnerability to the effects of climate change has significant implications for food security across the region<sup>6</sup> and there are predictions that between 3 and 10 million people will be internally displaced in Bangladesh over the next 40 years,<sup>7</sup> swelling already strained urban centres, such as Dhaka.

Island nations susceptible to the effects of climate change face not only the danger of homes and other buildings being flooded, but the threat of livelihoods being destroyed as a result of the contamination of agricultural resources by saltwater intrusion. Nations such as the Republic of Maldives will become uninhabitable if sea levels rise by one metre, and many low-lying island regions will gradually disappear if sea levels continue to rise.

The impact of climate change is acutely evident in the case of Kiribati – a Pacific island nation, consisting of thirty-three atolls and reef islands, with a population of just over 100,000 people. The highest point in Kiribati is only two metres above the sea level. It has been predicted that, by the middle of this century, Kiribati will become the first nation in the world to be completely eradicated as a consequence of rising sea levels. Already, rising sea levels have claimed land on which houses were previously located, led to freshwater wells being filled with salt water, and forced people to migrate to other parts of the country. Many of the Kiribati communities rely on marine resources and the wider natural environment for their livelihoods, but saltwater intrusion has started to contaminate these resources.<sup>8</sup> In 2014, in response to the looming

crisis, the President of Kiribati purchased 20 sq km of land on Vanua Levu, one of the Fiji islands, about 2,000km away.<sup>9</sup>

In the words of Linda Uan, an inhabitant of Kiribati:

*The majority of I-Kiribati have no wish to live in another country, but mounting evidence suggests that we may soon have little choice. Therefore migration may become the key part of the way we are forced to 'adapt' ... But, there's a problem. Unlike our neighbours in Tuvalu (with a population of about 10,000) we have no significant or sympathetic migration relationship or policy with any country.*<sup>10</sup>

Even in Ireland, significant and widespread flooding in December 2015 led to discussion of the need to consider population relocation as a way of adapting to increased risk of flooding.



Devastation after cyclone

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## Climate Change and Population Displacement

Migration as a result of environmental change is not a new phenomenon. However, the escalation of human-induced climate change and the associated consequences for human populations will likely contribute, directly and indirectly, to an increase in the volume of internal and cross-border movement occurring globally and to significant changes in patterns of migration around the world. Migration may therefore be seen as a form of adaptation to changing climate conditions and extreme weather events.

It has been estimated that, in the seven years up to and including 2014, on average 22.5 million people were displaced annually as a result of climate change or weather-related disasters.<sup>11</sup> In 2014, floods and storms accounted for 92 per cent

of the estimated global total of people displaced by disasters – the largest three displacements were the result of floods and typhoons in India and the Philippines.<sup>12</sup>

Climate change and associated increases in migration are likely to worsen prevailing resource scarcities, most especially in developing countries. António Guterres, United Nations High Commissioner for Refugees from 2005 to 2015, noted:

*What we are now seeing are more and more people that are forced to flee because of lack of water, because of lack of food, because of extreme poverty and many of these situations are enhanced by climate change.*<sup>13</sup>

Such increased pressures on essential resources arising at least in part from climate change may in turn have implications for regional and international peace and security – a point highlighted by the IPCC<sup>14</sup> and UNHCR.<sup>15</sup>

For instance, increased competition for resources made scarce by climate change may lead to an initial displacement of population which, in turn, may contribute to tensions and conflicts – and these in turn may lead to further and even greater displacement, both internally and across borders.

A number of reports and accounts have made associations between conflicts in Iraq and Syria and climate-related issues, particularly water scarcity.<sup>16</sup> Kelley *et al*, for example, point out that before the Syrian uprising in 2011, the Middle East's 'greater Fertile Crescent', including Syria, experienced a three-year drought – the worst recorded under established instruments of measurement.<sup>17</sup> The authors argue that the extreme nature of this drought, exacerbated by unsustainable water management and agricultural practices, resulted in the internal displacement of an estimated 1.5 million people in Syria, with most migrating to the peripheries of the country's urban centres.<sup>18</sup> Resulting demographic change and inequalities may have propelled civil unrest. In effect, although climate change did not directly precipitate the conflict, it did exacerbate existing vulnerabilities.<sup>19</sup>

## Protection under International Law

Existing international refugee and migration law does not specifically take account of populations forced to migrate because of climate-induced environmental change.<sup>20</sup> In other words, there exist

no distinct frameworks, structures or guidelines to provide for people displaced for this reason. The term ‘climate refugee’ therefore remains the subject of debate and, for now, can be said to be a quasi-definitional description, with no basis for legal enforcement. An absence of definition under international law means that people compelled to move because of climate change remain ‘almost invisible in the international system ... unable to prove political persecution in their country of origin, they fall through the cracks of asylum law’.<sup>21</sup>

This absence is related to the historical development of international frameworks for protection: the official definition of refugee status was agreed at a time when the threat of climate change was generally unknown. According to the 1951 United Nations Convention relating to the Status of Refugees, a ‘refugee’ is legally defined as an individual who is unable to return to his or her country because of a well-founded fear of persecution. This definition leaves little scope for the protection of the rights of persons fleeing their home country because of the direct or indirect effects of climate change.

There is, therefore, an increasing onus on the international community to acknowledge, define and respond to climate-related population displacement and specifically to consider if and how international legal frameworks should accommodate cross-border displacement associated with climate change:

*There are well-founded fears that the number of people fleeing untenable environmental conditions may grow exponentially as the world experiences the effects of climate change and other phenomena ... This new category of ‘refugee’ needs to find a place in international agreements. We need to better anticipate support requirements, similar to those of people fleeing other unviable situations.*<sup>22</sup>

Some commentators suggest that the appropriate approach could involve the expansion of the 1951 Refugee Convention, and its 1967 Protocol, so as to include a legal definition for climate refugees. Others, such as the Norwegian Refugee Council, argue that a more effective approach could be the development of a separate international convention for climate refugees, as the prevailing framework for protection may prove unsuitable for the dynamics of climate change and related displacement.<sup>23</sup>

A further issue in regard to the protection of people displaced by climate change is that often those affected do not, in fact, migrate to another country but instead move to another part of their own state. This is because the effects of climate change tend to be regional in nature, thus impacting on specific areas rather than on a country as a whole. Those forced to move therefore become ‘internally displaced persons’, which means that the primary responsibility for responding to their situation rests with their own state.<sup>24</sup> In reality, of course, the capacity of states experiencing the impact of climate change to meet the economic and social needs arising from significant internal movements of population may be limited.

In any case, it is clear that significant challenges lie ahead in determining the specific linkages between climate change and population displacement, and for this reason there is considerable scope for cross-disciplinary collaboration between climate scientists and policy makers. As already noted, climate change may not necessarily be the key push factor in the emergence of displacement, which instead may be a response to a host of variables, some of which are exacerbated by climate effects.

Regardless of the challenges involved, debate about the definition and status of climate ‘refugees’ in international law will undoubtedly continue. However, it is important to note the resistance that exists in the international community to the idea of expanding the definition of ‘refugee’ under international law to include those displaced by climate events.<sup>25</sup> It is equally important to note that, even in the absence of such resistance, efforts to define and recognise the concept of ‘climate refugee’ will come up against the reality that there is a lack of consistent approaches to refugee protection across the globe, including the fact that there are some states which do not have refugee laws or which have not ratified international instruments on protection.<sup>26</sup>

## A Way Forward

In his encyclical letter, *Laudato si’: On Care for Our Common Home*, Pope Francis refers to the ‘tragic rise in the number of migrants seeking to flee from the growing poverty caused by environmental degradation’.<sup>27</sup> He goes on to say:

*... they are not recognized by international conventions as refugees; they bear the loss of the lives they have left behind, without enjoying any legal protection whatsoever. Sadly, there is*

*widespread indifference to such suffering, which is even now taking place throughout our world. Our lack of response to these tragedies involving our brothers and sisters points to the loss of that sense of responsibility for our fellow men and women upon which all civil society is founded.*<sup>28</sup>

A key feature of *Laudato si'* is the concept of 'integral ecology' – the recognition of the connection between the existential economic, social and environmental crises confronting humanity. Pope Francis proposes integral ecology as an appropriate lens through which to understand and respond to the environmental and related human crises facing the world. He says:

*... everything is closely interrelated, and today's problems call for a vision capable of taking into account every aspect of the global crisis.*<sup>29</sup>

By adopting an integral ecology perspective, we can acknowledge that the environmental issues confronting the world are, in fact, symptoms of deeply ingrained injustices. Unless these root causes are addressed, social and environmental crises will continue to unfold.

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This understanding is clearly of relevance to how we tackle climate change and its adverse effects, including population displacement. Climate change impacts will vary considerably, depending on existing vulnerabilities and capacities at individual, community and national levels. The potential for climate change to instigate population displacement will likewise vary, depending on such factors. For this reason, identifying the association between vulnerabilities to climate change and the political, economic and social forces that shape them is necessary for a more effective response to climate-related migration.

### **Global Policy Context**

A comprehensive approach, involving both development policy and international humanitarian responses to displacement, underpinned by consistent monitoring and data collection, is clearly

needed. A number of opportunities within the post-2015 global policy agenda provide scope for climate-related displacement to be better addressed.

The most important area of action relates to measures at national and international level to implement the Agreement reached at the UN Framework Convention on Climate Change Conference, held in Paris in late 2015 (COP21). The overarching commitments under the 'Paris Agreement' – to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and a commitment to 'pursue efforts' to limit increases to 1.5°C – are, of course, critical to lessening the threat of climate-induced displacement. Likewise, commitments in the Agreement in relation to the reduction of greenhouse gas emissions and the removal, by use of 'sinks', of the effects of such emissions; the recognition of the particular situation of developing countries and commitments in terms of support for adaptation and mitigation measures, are all highly relevant to the question of lessening vulnerability to climate-induced displacement.<sup>30</sup>

The Paris Agreement itself did not, however, specifically refer to displacement, but in its document, 'Adoption of the Paris Agreement', the Conference of the Parties called for the establishment of a task force to 'develop recommendations for integrated approaches to avert, minimize and address displacement related to the adverse impacts of climate change'.<sup>31</sup> However, notably absent was any reference to examination of the question of extending the definition of 'refugee' under international law so as to include climate-induced displacement.

A second area of action relates to the realisation of the United Nations Sustainable Development Goals, agreed in September 2015, under the title, 'Transforming our World: the 2030 Agenda for Sustainable Development'.

With that agreement, the United Nations, for the first time, adopted an agenda for development which applies to all UN member states, regardless of their stage of development. Crucially, this agenda, described as 'a plan of action for people, planet and prosperity', integrates economic, social and environmental sustainability.<sup>32</sup>

While waiting for a strengthened international policy context, there remains an obvious responsibility on individuals to reduce the carbon

emissions related to their own consumption choices and ways of living and to seek to influence political leaders in regard to action on climate change. Of concern at the political level is not only the development and implementation of stronger policies to reduce national greenhouse gas emissions but the question of making a meaningful contribution to mitigation and adaptation efforts in more vulnerable, at-risk, countries.

Mechanisms such as the Green Climate Fund<sup>33</sup> could offer one line of approach: by providing assistance in relation to climate change mitigation and adaptation, the potential for displacement can be reduced. A suggestion has also been made for the development of a distinct fund to tackle climate-related displacement which could be underpinned by the ‘polluter pays principle’, implying that it would be financed predominantly by developed nations.

As Europe can anticipate increased migratory pressures over coming decades, there is potential for Ireland to display leadership in the way it responds. According to one climate vulnerability index, Ireland is among the countries least at risk of experiencing the adverse effects of climate change and so it has the potential to become a place of refuge for those displaced by the ramifications of such change.

Above all, there is a moral imperative for Ireland to take responsibility for its contribution to global greenhouse gas emissions, especially as Ireland’s per capita emissions profile is one of the highest among developed countries.<sup>34</sup> Furthermore, considerable scope remains for Ireland to increase its contributions to financial support mechanisms such as the Green Climate Fund.<sup>35</sup>

## Conclusion

This article has attempted to outline the complex relationship between climate change and population displacement. It is clear that if there is to be an effective response to the growing phenomenon of forced migration related to climate change, a radical reduction in carbon emissions must be prioritised and sufficient effort and resources devoted to climate change mitigation and adaptation. Furthermore, the question of the recognition of climate-related population displacement in international law on protection must be addressed. The concept of integral ecology, outlined in the

Pope Francis’ encyclical, *Laudato si’*, presents a perspective which can help in developing greater understanding of the relationship between climate change and social injustices and in fostering increased commitment to addressing the root causes of these injustices.

## Notes

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3. See Rachel Warren, Nigel Arnell, Robert Nicholls, Peter Levy and Jeff Price, *Understanding the Regional Impacts of Climate Change*, Research Report prepared for the Stern Review on the Economics of Climate Change, Norwich: Tyndall Centre for Climate Change Research, 2006, Working Paper 90. (<https://dffd.de/Presse/PMitt/2006/061030c3.pdf>)
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6. Tasneem Siddiqui, *Climate Change and Population Movement: The Bangladesh Case*. ([http://www3.ntu.edu.sg/rsis/nts/Events/climate\\_change/session4/Concept%20paper-Tasneem.pdf](http://www3.ntu.edu.sg/rsis/nts/Events/climate_change/session4/Concept%20paper-Tasneem.pdf))
7. Behrooz Hassani-Mahmoeei and Brett W. Parris, ‘Climate Change and Internal Migration Patterns in Bangladesh: An Agent-Based Model’, *Environment and Development Economics*, Vol. 17, Issue 6, December 2012, pp. 763–80.
8. A good overview of the profile and unfolding situation for Kiribati can be found at: <http://www.fj.undp.org/content/fiji/en/home/ourwork/environmentandenergy/successstories/the-rising-sea-the-changing-tides-in-kiribati/> See also: UN Economic and Social Commission for Asia and the Pacific, *Climate Change and Migration Issues in the Pacific*, Fiji: UNESCAP, 2014. (<http://www.ilo.org/dyn/migpractice/docs/261/Pacific.pdf>)
9. Laurence Caramel ‘Besieged by the rising tides of climate change, Kiribati buys land in Fiji’, *The Guardian*, 1 July 2014.
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13. Quoted in: *Climate Change and Displacement in the 21st Century: The Nansen Conference* (Oslo, Norway, 5–7 June

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  17. Colin P. Kelley, Shahrzad Mohtadi, Mark A. Cane, Richard Seager and Yochanan Kushnir, 'Climate Change in the Fertile Crescent and Implications of the Recent Syrian Drought', *Proceedings of the National Academy of Sciences of the United States of America*, 2015, Vol. 112, No. 11, pp 3241–6.
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  19. *Ibid.*
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  28. *Ibid.*
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  30. United Nations Framework Convention on Climate Change, Conference of the Parties, Twenty-first Session, Paris, 30 November to 11 December 2015, *Paris Agreement*, 12 December 2015, FCCC/CP/2015/L.9/Rev.1. (<https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>)
  31. See par. 50, 'United Nations Framework Convention on Climate Change, Conference of the Parties, Twenty-first Session, Paris, 30 November to 11 December 2015, *Adoption of the Paris Agreement*, 12 December 2015, FCCC/CP/2015/L.9/Rev.1. (<https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>)
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  33. The Green Climate Fund, established in 2010 by the United Nations Framework Convention on Climate Change, provides a mechanism for the allocation of funding to mitigation and adaptation measures in developing countries. The objective is to achieve US\$100 billion annually by 2020, from a variety of sources. Varying levels of funding success have been achieved to date.
  34. In 2011, Ireland's greenhouse gases per capita were the fourth highest in the European Union. See: Central Statistics Office, *Environmental Indicators Ireland, 2014*, Dublin: Stationery Office, 2014. (<http://www.cso.ie/en/media/csoie/releasespublications/documents/environment/2014/eii2014.pdf>)
  35. As of November 2015, Ireland has pledged to contribute only €2 million to the Green Climate Fund.

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