15 Climate Change and Human Migration: Towards a Global Governance System to Protect Climate Refugees

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15.1 Introduction¹

Climate change will fundamentally affect the lives of millions of people who will be forced over the next decades to leave their villages and cities to seek refuge in other areas. Although the exact numbers of climate refugees are unknowable and vary from assessment to assessment depending on underlying methods, scenarios, time frames, and assumptions (as laid out below), the available literature indicates that the climate refugee crisis will surpass all known refugee crises in terms of the number of people affected. Many climate refugees may seek refuge in their own countries; others will need to cross borders to find a new home. Some local refugee crises, in particular in the richer countries in the North, may be prevented through adaptation measures such as reinforced coastal protection or changes in agricultural production and water supply management. Many poorer countries, however, are unlikely to be able to initiate sufficient adaptation programmes, and climate-induced migration might be the only option for many communities in the South. In these situations, climate refugees will need to rely on effective protection and support from

the international community, regardless of whether climate migration is internal or transnational.

These systems of global governance for the recognition, protection, and resettlement of climate refugees stand at the centre of this chapter, as a major building block of the emerging global governance architecture of adaptation towards climate change. In 2007, the link between climate change and 'large-scale migration' even became part of the rationale for awarding the Nobel Peace Prize. Yet there is little systematic academic research on appraising the threat of climate-related mass migration. Almost no studies have analysed such migration from the perspective of global governance reform. This chapter attempts to address this lacuna.

Lack of conceptual clarity and consensus is a key problem hindering research on climate refugees, in particular comparative research programmes and data collection. Most assessments so far have addressed the larger phenomenon of 'environmental refugees', a term that was popularized over twenty years ago by the UN Environment Programme (UNEP) in a 1985 report (El-Hinnawi 1985). This report defined environmental refugees broadly as "people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life" (El-Hinnawi 1985: 4; for critiques see Suhrke 1994: 478; Bates 2002: 466). The notion of environmental refugees generally includes climate refugees (e.g. Myers/Kent 1995; Myers 2002: 611), although its breadth makes it impossible to specify or quantify climate-related migration. In fact, a clear definition of 'climate refugees' does not so far seem to exist. Many studies leave the term undefined or, while purporting to analyse 'climate refugees', still implicitly rely on broader concepts. For instance, Derek Bell while focusing in his work "on one cause of environmental disruptions, namely, global climate

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change" seems to draw on the much broader UNEP concept of environmental refugees without further differentiation (Bell 2004: 137). Other studies offer overly complex definitions that are difficult to operationalize in practice. Not least, the very term 'refugee' is – implicitly or explicitly – disputed, and several authors and intergovernmental bodies suggest instead terms such as 'migrants' or 'displaced persons.'

Some intergovernmental agencies - such as the International Organization for Migration (IOM) and the UN High Commissioner for Refugees (UNHCR) - seem to reject the term environmental or climate 'refugee' because of the legal rights that the intergovernmental system currently bestows upon 'refugees'. In their view, the term 'refugee' should remain limited to transboundary flight, mainly because the Geneva Convention Relating to the Status of Refugees (1951) is restricted to persons who cannot avail themselves of the protection of their home state for fear of persecution. As an alternative, some international agencies prefer the notion of 'environmentally displaced persons' (UNHCR 2002, 12-13; Keane 2004). By contrast, it was the United Nations Environment Programme (UNEP) that popularized the term environmental 'refugee' in the first place. Also, Agenda 21 the highly influential intergovernmental programme of action agreed upon by almost all governments at the 1992 United Nations Conference on Environment and Development (UNCED) - uses the term 'environmental refugees' in a number of places. Moreover, the notion of 'climate refugees' appears to find acceptance in some national political debates too. For example, Australia's Labor Party had proposed an international coalition to accept climate refugees from the Pacific² - in response to the (then) Australian government's position that rejected the notion of climate refugees (Renaud/Bogardi/Dun/Warner 2007) - and in 2007 Australia's Greens party even tabled a Migration Amendment (Climate Refugees) Bill.³

We support the use of the term climate refugee for two main reasons. First, the distinction between transboundary and internal flight that is a core element of the traditional refugee concept of the UN High Commissioner does not help much since climate change will cause both transnational and internal flight. Some island nations will effectively cease to exist, and some countries, especially those affected by drought, will be overburdened by the degree of the national predicament. These people will have to find refuge outside their home country. Some climate refugees might thus cross borders while most will stay within their country - it seems difficult to argue that a global governance mechanism for their protection should bestow a different status, and a different term, depending on whether they have crossed a border. Secondly, we see no convincing reason to reserve the stronger term 'refugee' for a category of people who became the centre of attention after 1945, and to invent less appropriate terms - such as 'environmentally displaced persons' for new categories of people who are forced to leave their homes now, with similar grim consequences. Why should inhabitants of some atolls in the Maldives who require resettlement by reason of a well-founded fear of being inundated by 2050 receive less protection than others who fear political persecution? The term refugee has strong moral connotations of societal protection in most world cultures and religions. By using this term, the protection of climate refugees will receive the legitimacy and urgency it deserves. Therefore, we propose to continue using the term climate refugees, and to adjust the outdated UN terminology accordingly by allowing for different types of refugees and different agreements on their protection.

In sum, we define 'climate refugees' here as people who have to leave their habitats, immediately or in the near future, because of sudden or gradual alterations in their natural environment related to at least one of three impacts of climate change: rise in sea level, extreme weather events, and drought and water scarcity (see Biermann/Boas 2010 for more detail on this definition). This definition covers climate refugees in both industrialized and developing countries. However, in practical terms only climate refugees in poorer developing countries will be an issue of international concern, cooperation, and assistance. It is people in developing countries who are most likely to be compelled to leave their homes and communities, owing to low adaptive capacities, their often vulnerable location vis-à-vis climate change events, often high population densities, existing hunger and health problems, low level of GDP per capita, often weak structures of governance, political instability, and other factors (Stern 2006: 92-97; German Advisory Council on Global Change 2007: 119-120).

Even though the exact number of climate refugees is hardly certain given the various methodological

² Australian Labor Party, "Labor Calls for International Coalition to Accept Climate Change Refugees," press release (9 October 2006); at: http://www.alp.org.au/media/1006/msenhwat090.php (26 August 2007).

problems, and even though these methodological problems are likely to sketch out an overly pessimistic picture, large migration flows over the course of this century are plausible. The total number of people at risk of becoming climate refugees by 2050 could well be around 200 million or more, even though this number is a rough estimate with a large margin of error, depending on the different conditions and factors considered in the estimate (Stern 2006; see Biermann/Boas 2010 for more detail). This would mean twenty times as many refugees as are at present protected by the UNHCR.4

In the following sections, we analyse the current global governance of refugees and provide a blueprint for a global governance architecture for the recognition, protection, and voluntary resettlement of climate refugees. We then reflect on the political constraints that these proposals are likely to face, followed by the conclusion. Our focus on global governance does not imply that only global solutions are needed, and that local and national policies and programmes are less important. Instead, we believe that the protection of climate refugees requires an effective system of multilevel governance, with a strong global framework providing vital support for, and coordination of, national and local efforts.

The Protection of Climate 15.2 **Refugees in Current Global** Governance

To what extent is the current global governance system able to deal with the crisis that may emerge in the decades to come? The main global institution dealing with refugees is the regime provided for by the 1951 Geneva Convention Relating to the Status of Refugees and its 1967 Protocol Relating to the Status of Refugees. These institutions are restricted to individual political refugees who flee their countries because of state-led persecution, and thus do not cover climate refugees (McGregor 1994: 126). A broader definition of refugees has been adopted in two regional conventions, the Convention Governing the Specific Aspects of Refugee Problems in Africa (1969) of the Organization of African Unity and the Cartagena Declaration on Refugees of 1984 concerning refugees from Central America, Mexico, and Panama (Keane 2004: 216; OAU 1969: art. I.2.; Cartagena Declaration on Refugees 1984: art. III.3). Both regional conventions also cover people fleeing from events that have seriously disturbed public order (OAU 1969: art. I.2; Cartagena Declaration on Refugees 1984: art. III.3), and the African convention applies to groups as well (McGregor 1994: 127). Even though the extension of protection to people affected by seriously disturbed public order and to groups may open up the two regional conventions - which happen to cover regions most severely affected by future climate change - to include climate refugees, neither convention was originally intended to protect these types of refugees (Renaud/Bogardi/ Dun/Warner 2007: 12; McGregor 1994: 127; Keane 2004: 216).

The main agency in the United Nations system for the protection of refugees is the *United Nations High* Commissioner for Refugees (UNHCR). Its primary focus is (political) refugees protected under the Geneva Convention and under the Protocol of 1967,5 and thus not environmental or climate refugees. By the end of 2007, 11.7 million refugees fell within the formal mandate of the UNHCR (2008: 23-25). Given the restricted definition of political refugee under the Geneva convention, the executive committee of UN-HCR and the UN General Assembly have permitted the agency to extend its activities towards other groups, such as former refugees who have returned to their homeland, internally displaced people, and people who are stateless or whose nationality is disputed, even though these people have a different legal status and are formally not referred to as 'refugees' (UN-HCR 2007b). In total, the UNHCR dealt with 32.9 million people by the end of 2006 and 31.7 million by the end of 2007 (UNHCR 2008: 23), including 'refugees, asylum seekers, returnees, stateless people and a portion of the world's internally displaced persons (IDPs)' (UNHCR 2006a: 1; 2008: 24).

The United Nations High Commissioner for Refugees covered 11.4 million refugees in 2007 (UNHCR 2008: 23-25). This is a rather restricted number and does not include, for instance, roughly 4.6 million Palestinian refugees who fall within the mandate of the United Nations Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA) (UNHCR 2008: 23).

^{&#}x27;Refugees include persons recognized under the 1951 Convention Relating to the Status of Refugees; its 1967 Protocol; the 1969 OAU Convention Governing the Specific Aspects of Refugee Problems in Africa; those recognized in accordance with the UNHCR Statute; persons granted complementary forms of protection; or, those enjoying "temporary protection".' (UNHCR: 2007a, 3, emphasis in original); see also UNHCR (2007b).

In the current regime, most climate refugees could be conceptualized as internally displaced persons. The UN High Commissioner for Refugees has a variety of programmes for such people, even though the High Commissioner claims not to have a specific mandate for them (UNHCR 2006b: 5, 12). Environmentally internally displaced persons also fall under the Guiding Principles on Internal Displacement of the Office of the High Commissioner for Human Rights (Office of the High Commissioner for Human Rights 1998: Introduction article 2; Keane 2004: 217). However, the concept of 'environmentally internally displaced person' serves only 'as a descriptive term, not as a status that confers obligations on states' (Keane 2004: 217). The Guiding Principles state for example that the primary duty to provide protection and humanitarian assistance lies with national authorities (Office of the High Commissioner for Human Rights 1998: principle 3), and the 2006 Operational Guidelines on Human Rights and Natural Disasters 'Protecting Persons Affected by Natural Disasters' from the Inter-Agency Standing Committee directed towards internally displaced people places primary responsibility on the national authorities of affected countries with assistance from humanitarian agencies (IASC Working Group 2006: 9-10). No duties or obligations of other states are mentioned.

In sum, the current legal regime relating to refugees provides only marginal protection, with no specific mandate, to climate refugees. The main responsibility is placed on their home countries, which contradicts global responsibility for the victims of climate change. In addition, the maximum number of persons the UN High Commissioner for Refugees can currently deal with is merely a small fraction of the additional number of climate refugees that many studies predict for 2050. It is doubtful whether these governance arrangements can cope with the looming climate refugee crisis (Oliver-Smith 2009, on the need for legally binding policies to address mass climate migration).

One reform option within the present institutional setting could be to extend the mandate of the 1951 Geneva Convention and of the UN High Commissioner for Refugees to cover also 'climate refugees'. This has been proposed recently by the Republic of the Maldives (Biermann/Boas 2008), yet does not find much support in the literature. Politically it would seem unlikely that donor countries would allow the current refugee regime with its fixed set of refugee rights to be extended to cover a twenty-times larger group of refugees. Related to this, such exten-

sion could produce a trade-off between the (political) refugees that are protected under the Geneva Convention and climate refugees.

Most importantly, however, climate refugees require a different kind of protection. Most climate refugees will not leave their home countries, and will still be able to enjoy the protection of their governments. In addition, it is possible to predict, within limits, many of the population centres that may potentially be affected – notably low-lying coasts and islands. Climate-related migrations can therefore be planned and organized with the support of their governments and public agencies, this being exactly the opposite of political or religious persecution. Thus, the problem of climate refugees is at its core a problem of development policy. It requires institutions that take account of this special character.

15.3 Outline of a New Regime for Protecting Climate Refugees

For these reasons, we argue against the extension of the definition of refugees in the Geneva Convention to cover climate refugees. Instead, we argue for a *sui generis* regime for the recognition, protection, and resettlement of climate refugees. This regime must be tailored to the needs of climate refugees, and it must be appropriately financed and supported by the international community. This section lays out the central elements of such a regime. We address its core governing principles, its legal-institutional character, and its organizational setting. Section 15.4 will address financial support and compensation.

A *sui generis* regime for the recognition, protection, and resettlement of climate refugees must build on a set of core principles tailored for the specific problem, including its political, legal, and ethical dimensions. We suggest five principles to serve as a basis for the institutional development of this regime.

⁶ See the discussion in German Advisory Council on Global Change (2007, 174, 204–207), where the Council eventually argues against an extension of the UN regime. See also the discussion in McGregor (1994: 126–127) rejecting the extension of the definition in the Geneva Convention. See also Renaud, Bogardi, Dun, and Warner (2007: 34) with further references.

15.3.1 The Principle of Planned Relocation and Resettlement

Even though climate change impacts will eventually manifest themselves in unpredictable singular events—such as storms, floods, or droughts – the increase in magnitude and frequency of such events can be predicted, and the consequential need for local populations to leave regions that suffer from increased risk can be foreseen. The governance of climate refugees can thus be better organized and planned than is the case with victims of political turmoil or war, and can be carried out in planned, voluntary relocation and resettlement programmes – sometimes over many years and decades. At the core of a regime for climate refugees are therefore programmes for planned and voluntary resettlement over longer periods rather than for emergency response and disaster relief.

15.3.2 The Principle of Resettlement Instead of Temporary Asylum

Over the long term, most climate refugees – especially victims of a rise in sea level – will not be able to return to their homes. Thus, the underlying assumption in current refugee governance that refugees may return once state-led persecution in their home countries has ended, needs to be replaced by an institutional design that conceives of (most) climate refugees as permanent immigrants to the regions or countries that accept them.

15.3.3 The Principle of Collective Rights for Local Populations

The Geneva Convention is based on the concept of persecution of individuals. This has included quasi-collective titles – for example, when entire ethnic or religious groups in a country are judged as being persecuted – but essentially the Convention is designed to deal with state-based persecution of individuals. A climate refugee regime, however, would need to be tailored for groups of people, such as the populations of particular villages, cities, regions, provinces, or – as in the case of small island states – of entire nations.

15.3.4 The Principle of International Assistance for Domestic Measures

Climate refugees enjoy in principle the protection of their own countries, and in many cases, serious impacts from climate change will affect only parts of a country. Thus, an international regime for climate refugees will focus less on the protection of persons outside their states than on supporting governments, local communities, and agencies in protecting people within their own territory. The governance challenge of protecting and resettling climate refugees is thus essentially about international assistance and funding for domestic support and resettlement programmes of affected countries that have requested such support.

15.3.5 The Principle of International Burdensharing

Climate change is a global problem in its causes and consequences, and the industrialized countries bear most of the moral responsibility for its victims. This also suggests the adoption of institutional elements from existing agreements on climate, or from similar areas for the protection of climate refugees. These could include: the 'principle of common but differentiated responsibilities' and respective capabilities (which suggests that richer countries have to bear higher costs for the protection of climate refugees); the principle of reimbursement of the full incremental costs of affected countries incurred through the resettlement of climate refugees; and the principle of double-weighted decision-making procedures, which would give both developing and industrialized countries equal clout in a new institution on climate refugees.

These five principles are not linked to a specific institutional form or embedding. Theoretically, governments could agree on a new treaty on climate refugees, such as the 'cross-sectoral multilateral convention' on climate refugees that was recently proposed by the German Advisory Council on Global Change (2007: 129, 205, 206–207). Such an independent convention, however, could require a lengthy negotiation process on core principles and would weaken the link with the climate policy process and its particular agreements on equity, responsibility, and international co-operation.

The five principles of a climate refugee regime rather suggest a Protocol on Recognition, Protection, and Resettlement of Climate Refugees ('Climate Refugee Protocol') to the *United Nations Framework Convention on Climate Change* (UNFCCC). Such a protocol could build on the political support from almost all countries as parties to the climate convention. It could draw on widely agreed principles, such as 'common but differentiated responsibilities' and the reimbursement of full incremental costs. It could

support the protection of climate refugees by interlinking their protection with the overall climate regime, including progress in climate science that defines risks for people in certain regions. For developing countries, a protocol on climate refugees based on the principle of 'common but differentiated responsibilities' and full incremental costs could become a major goal for negotiation, especially when one takes into account the way in which the North exerts increasing pressure on advanced developing countries in an attempt to integrate them into a regime of global mitigation whose objectives are quantified reduction and limitation (Biermann 2005: 273).

When it comes to putting the procedures into operation, the protocol could provide for an executive committee on the recognition, protection, and resettlement of climate refugees that would function under the authority of the conference of the parties to the climate convention serving as the meeting of the parties to the climate refugee protocol. This executive committee would maintain a list of specified administrative areas (such as villages, islands, and districts) under the jurisdiction of member states whose population is determined to be 'in need of relocation due to climate change' or 'threatened by having to relocate due to climate change'. Any state party to the protocol - and in fact only state parties - would be entitled to propose areas under their jurisdiction for inclusion in the list of affected areas. In line with the United Nations principle of sovereignty, inclusion of affected areas, as well as the type of support measures to be taken, would be determined only upon formal proposal from the government of the affected country.

While the composition and procedures of this executive committee will likely be contentious in negotiations, it would appear reasonable to follow examples such as that of the Montreal Protocol on Substances that Deplete the Ozone Layer, which is governed by committees with an equal number of affected countries and donor countries with double-weighted majority voting. This would allow both the affected developing countries and the donor countries to hold a collective right to veto over the future evolution and implementation of the regime.

Inclusion in the list of populations 'in need of relocation due to climate change' or 'threatened by having to relocate due to climate change' would trigger specific rights and support mechanisms, including financial support and voluntary resettlement programmes over several years, together with the purchase of new land and, especially in the case of small island states, organized international migration. It is likely that these rights will be restricted to inhabitants of countries that are not listed in Annex I to the climate convention, that is, developing countries as defined in the climate regime.

Creating a legal framework for 'climate refugees' will require adjustments in the existing institutional framework for political refugees under the Geneva Convention and related agreements and national legislation. Differentiating between the legal status of political refugees protected by the Geneva Convention and the legal status of climate refugees protected by a UNFCCC Protocol on Recognition, Protection, and Resettlement of Climate Refugees requires some terminological adjustment within the UNHCR regime, but is legally and practically unproblematic. In particular, a legal instrument on climate refugees would not require an amendment to the 1951 Geneva Convention Relating to the Status of Refugees and its Protocol, since these instruments define the term 'refugee' only for the purposes of their own regime, which will remain unchanged (Art. 1.a.2 of the 1951 Geneva Convention (UNHCR 2007c)).

Within climate negotiations, some governments and think tanks have proposed an 'adaptation protocol' for the climate convention (Okereke/Mann et al. 2007: 36-37; Ayers/Alam/Huq 2010). Here is not the place to discuss the disadvantages and advantages of such a broader legal instrument, which would address a much wider range of issues than are covered in this chapter. However, it is important to note that the core elements that we propose for a UNFCCC Protocol on Recognition, Protection, and Resettlement of Climate Refugees could theoretically also be incorporated into a broader adaptation protocol as long as key elements of our proposal - such as the financial support mechanism and its principles - are preserved. Integration of the protection of climate refugees into a broader adaptation protocol could allow for a more holistic adaptation planning in regions at risk, which will include in many cases a combination of adaptation and voluntary resettlement programmes. However, such an integration of the climate refugee problem into a larger context also places refugees in competition with other interests in affected areas. This might endanger the effective protection and financial support of the people - often the poorest -for whom adaptation is no option and who have to leave their homes and resettle elsewhere. These potential conflicts thus need to be prevented if a larger legal instrument is being negotiated.

15.4 Financial Support and Compensation of Climate Refugees

The protection and resettlement of possibly over 200 million climate refugees over the course of this century will require substantial funds. Since climate refugees will often (though not exclusively) live in poorer developing countries and generally seek refuge in their own or neighbouring countries, the funds will largely have to come from the international community. From a global governance perspective, there are three types of financial mechanisms for climate refugees: general development funding agencies, environment-related funds, or a new funding agency to be created especially for climate refugees.

Regarding development agencies, the World Bank group and the *UN Development Programme* (UNDP) are probably most relevant at present, though others will have to play a role (e.g. the World Health Organization or the UN Food and Agriculture Organization). These agencies will need to integrate climate change impacts into their work programmes, and most are in the process of doing so. In addition, there are a number of specialized environmental funds. Some climate programmes of developing countries are reimbursed through the *Global Environment Facility* (GEF), and the climate regime provides for a number of special funds to assist developing countries.

Yet while the protection of climate refugees will in principle fall under the terms of these funds, it may be questioned whether they are the most appropriate mechanisms for the specific funding problem of climate refugees. For one thing, the level of funding is not enough even for the current purposes of the funds. An increase in public funding from the governments of industrialized countries is unlikely or at least uncertain given other national priorities (including other climate-related priorities). The only fund that is independent from governments-the Adaptation Fund that is replenished by a 2 per cent levy on transactions under the Clean Development Mechanism - is projected to generate 160-950 million US dollars in total up to 2012 (Müller/Hepburn 2006: 7). A further rise in the levy on projects under the Clean Development Mechanism to top up the Adaptation Fund is possible, yet would create quasi-fiscal incentives against environmentally beneficial projects. Several proposals seek to address this issue, including novel funding mechanisms such as the Climate Impact Relief Fund proposed by Müller (Müller 2002: 89-91), the International Air Travel Adaptation Levy developed by Müller and Hepburn, projected to raise 4,000–10,000 million US dollars each year (Müller/Hepburn 2006), or climate change insurance schemes (e.g. Müller 2006: 5; Bals/Burton/Butzengeiger et al. 2005).

Yet independently of these debates, it is doubtful whether climate refugees can be best protected through inclusion in these general funding mechanisms. This would put climate refugees in competition with other concerns, be it mitigation as in the case of GEF funding or overall adaptation as in the case of the adaptation funds, where adaptation measures might be motivated through additional concerns such as the protection of powerful economic interests. Integrating climate refugees in general environmental funding schemes might blur the specific moral link between climate refugees and potential donor countries and hinder claims for compensation, liability, and responsibility against industrialized countries. Thus, as in our previous discussion of the institutional setting that would govern the recognition, protection, and resettlement of climate refugees, the best option appears here also to be the creation of an at least partially sui generis regime for the financing of the protection of climate refugees, such as a Climate Refugee Protection and Resettlement Fund.7 While the operational aspects of this fund could be linked with other financial mechanisms to increase efficiency, the governance of the fund should be independent and should stand under the authority of the meeting of the parties to the UNFCCC Protocol on Recognition, Protection, and Resettlement of Climate Refugees.

A key question for this new facility specifically for climate refugees will be the amount of funding required from the international community, and the funding principles. For mitigation programmes under the climate convention, industrialized countries have committed to reimburse developing countries the agreed full incremental costs, a concept originally developed in the 1990 London amendments to the ozone regime (Biermann 1997: 179, on the operation of the principle). Similar provisions apply to adaptation (art. 4.3 of the UNFCCC (United Nations 1992)). In addition, the climate convention obliges industrialized countries to assist the most vulnerable countries in meeting adaptation costs (art. 4.4) and gives special rights to least developed countries (art. 4.9). This sug-

⁷ See also the German Advisory Council on Global Change, which proposed an Environmental Migration Fund. German Advisory Council on Global Change 2007, 211.

gests applying the principle of reimbursement of full incremental costs also to the protection and resettlement of climate refugees at least to those situations where general causality of climate change is undisputed, namely sea-level rise. For other situations in which climate change is only one causal factor to account for environmental degradation – for example in the case of water scarcity – the principle of additional funding instead of full reimbursement is probably more appropriate.

We therefore suggest four principles that would govern the Climate Refugee Protection and Resettlement Fund. First, all funds provided are on a grant basis. To the extent that larger development projects financed through loans include the resettlement of climate refugees, the particular costs of the resettlement elements will be fully reimbursed as a grant. Second, all funds provided for the Climate Refugee Protection and Resettlement Fund are new and additional, to prevent competition with other sustainable development needs. Third, in the case of refugees from rises in sea level, the Climate Refugee Protection and Resettlement Fund reimburses the full agreed incremental costs of developing countries incurred in protecting and relocating these refugees (no matter from which country they come), taking into account that a large part of the financial transfer will be channelled through international development agencies. In cases where climate change is only one cause of environmental degradation, the fund will pay for part of the protection and relocation costs, and the exact amount will be determined in intergovernmental negotiation. Fourth, the meeting of the parties to the UNFCCC Protocol on Recognition, Protection, and Resettlement of Climate Refugees, or committees under its authority, maintain the right to define a list of designated populations as 'climate refugees in need of relocation', to determine the amount of reimbursement and type of assistance, and to take all other measures related to the governance of the fund.

15.5 The Politics of Climate Refugees: Constraints and Limitations

This blueprint of a governance system would ensure, we argue, the sufficient and timely recognition, protection, and resettlement of climate refugees. Yet the question arises as to what extent this proposal would be acceptable to decision-makers. To begin with, the political process that we have described would need to overcome significant practical hurdles. How to

deal, for example, with requests under this protocol from countries with autocratic governments or with a record of human rights violations: should the executive committee under this protocol grant all financial and administrative support to these governments? Or, how to deal with rent-seeking behaviour by countries that try to misuse the climate refugee protocol to increase foreign funding? Such problems are likely, yet are not different from those faced by existing mechanisms of international support, from World Bank loans to GEF projects. We are confident that, in a large measure, such problems can be dealt with in political processes, and that the double-weighted voting proposed funding system would support compromise and creative, tailor-made solutions.

More difficult is that the system that we propose, would pose a significant financial burden on donor countries. Resettlement, re-training, and re-integration of millions of people from the low-lying coastal regions of Africa and Asia is highly likely to surpass all financial transfers under multilateral and bilateral development co-operation schemes. Are donor countries ready for it? At present, the indications are not promising. The protection of those who are especially vulnerable to climate change is effectively a fringe issue in climate negotiations, despite the new adaptation funding mechanisms that have been set up in recent years. Yet climate change impacts are less prominent so far, and current efforts cannot predict what governments will decide should the scenario predictions on climate migration hold. One important factor is the likely security and stability implications of large-scale climate change impacts. It is probably not surprising that the largest attention the problem has been given in the North so far is by military and defence planners. Early support for climate refugees might not only attenuate human suffering: it might also prevent violent conflict. Investment in the protection of climate refugees is also investment in global security in the 21st century. This rationale of self-interest may well change current Northern attitudes to the financial support of climate change adaptation programmes in the poorer nations in the South.

15.6 Conclusion

Climate change threatens to cause the largest refugee crisis in human history. As we described in this chapter, more than 200 million people, largely in Africa and Asia, might be forced to leave their homes to seek

refuge in other places or countries over the course of the century. However, the existing governance mechanisms are not sufficiently equipped to deal with this looming crisis. The situation calls for new governance. In this chapter, we have therefore outlined a blueprint for a global governance architecture for the recognition, protection and resettlement of climate refugees. We argue against the extension of the definition of refugees under the 1951 Geneva Convention Relating to the Status of Refugees but rather for a new legal instrument specifically tailored for the needs of climate refugees - a Protocol on Recognition, Protection, and Resettlement of Climate Refugees to the United Nations Framework Convention on Climate Change - as well as a separate funding mechanism, the Climate Refugee Protection and Resettlement Fund.

The serious impacts of climate change that will compel millions of people to leave their homes are largely predicted only for the second half of this century, based on the current state of climate science. However, the broad predictability of the regions where major climate change impacts, such as a rise in sea level, are likely to cause harm and dislocation allows for preparation and planning. We have thus deliberately framed our proposal not in terms of emergency response and disaster relief but in terms of planned and organized voluntary resettlement programmes. In particular, when it comes to a rise in sea level, there is no need to wait for extreme weather events to strike and islands and coastal regions to be flooded. All areas that for practical or economic reasons cannot be protected through increased coastal defences need to be included in early phases of longterm resettlement and reintegration programmes that will make the process acceptable for the people affected. This, however, calls for early action in terms of setting up effective and appropriate governance mechanisms. The planning of a climate refugee protocol and the related institutional settings cannot wait until 2050 when it might be too late for orderly and organized responses. It must begin now.

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