

Climate Change and Migration—Dimensions, Concepts and Policy Responses from a Human Rights Perspective

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1. INTRODUCTION

Environmental causes of migration have increasingly become the centre of attention in the context of discussing the impact of climate change. Already in 1990, in its first assessment report, the *Intergovernmental Panel on Climate Change*¹ noted that “[m]igration and resettlement may be the most threatening short-term effects of climate change on human settlements. People may decide to migrate in any of the following cases: loss of housing [...], loss of living resources [...], loss of social and cultural resources [...].” (IPCC, 1990: 5-9). Twenty-four years later, the IPCC states that “[c]limate change over the 21st century is projected to increase displacement of people [...]. [...] Changes in migration patterns can be responses to both extreme weather events and longer-term climate variability and change, and migration can also be an effective adaptation strategy. There is *low confidence* in quantitative projection of changes in mobility, due to its complex, multicausal nature” (IPCC, 2014a: 73). It is striking that the second quote is formulated in a more cautious way, due to the fact that there has been an extensive discussion on the relationship between climate change and migration, drawing from tremendous multi- and interdisciplinary research carried out during the last few decades. The results of this huge body of research repeatedly pointed out that the interrelation between climate change and migration is a multi-faceted and complex phenomenon, where causal relationships are hard to establish and possible future

¹ The IPCC is an intergovernmental body entrusted with the assessment of the science related to climate change. The IPCC is composed of scientists from all over the world and was established by the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP) in 1988 to provide policymakers with regular assessments “on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation” (Principles Governing IPCC Work, Art. 2).

developments and forecasts are difficult to project (see, e.g., Geddes, 2015; Hugo, 2010; Kälin, 2010; Piguet, Pécoud and Guchteneire, 2011).

Climate-induced migration, thus, is “an essentially contested concept” (White, 2011: 13), which is also apparent in the ongoing debate on finding an appropriate term for this type of migration. Although it has been acknowledged that climate change will have increasing repercussions on migration, there is still no agreed terminology, concept and definition of migration in the context of environmental and climate change. Some terms, such as climate-induced or environment-related migration, suggest rather “voluntary” forms of movement while others, such as climate- or environmentally displaced persons, indicate forced migration. However, the “line between movement that is ‘voluntary’ and ‘forced’ is also very blurred, and people’s decisions will involve a delicate mix of both elements in different proportions” (McAdam, 2010: 2). The term “climate refugee” is highly contested as it refers to a legal concept defined by international law which does not include environmental reasons.² In addition, terms such as “climate-migrants” or “climate-refugees” have been criticized for “implying a monocausal relationship between environmental factors and human mobility” (Piguet, Pécoud and de Guchteneire, 2011: 17) and, thus, neglecting the multicausal nature of the issue.³ The discussion is complicated by the fact that it is not a new phenomenon that people move in the context of environmental threats; instead, environmental hazards have always been closely connected with the movement of people, e.g., desertification or droughts (see Hugo, 2010: 9; Leighton, 2011: 331-340; Piguet, Pécoud and Guchteneire, 2011: 2). Yet, climate change will have an effect on the environment and, thus, also on the human being. The IPCC notes in its last report:

Climate change will amplify existing risks and create new risks for natural and human systems. Risks are unevenly distributed and are generally greater for disadvantaged people and communities in countries at all levels of development. (IPCC, 2014b:13)

Due to the complexity of the issue and the difficulties in understanding and capturing the problem, attempts to politically address the problem are challenging. This article argues that in order to tackle the problem and to provide protection for people affected it is crucial to apply a human rights approach. That means not only that the analysis of the issue should take the guarantee of human rights as a starting point for the assessment of the problem—for example in the concept of vulnerability—but also that human rights

² According to the 1951 Convention relating to the Status of Refugees a refugee is a person leaving his or her country of residence due to “well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion” (Art. 1). For a discussion of this issue see, e.g., Cournil (2011: 365-368) and McAdam (2012: 39-51).

³ For a discussion of different terms and categories see, for example, Stojanov, Kelman, Shen, Duži, Upadhyay, Vikhorov, Lingaraj and Mishra (2014).

should be integrated as a benchmark in all policy and legal responses. Using a human rights approach means referring to an internationally well-established normative, legal and institutional framework which has the advantage that it relies on internationally acknowledged basic norms and values but also has the potential to connect different policy fields which are relevant in this context (e.g., environmental, migration and development policies) and to define a common ground and globally accepted basis for action. In the following, there will be a short outline on the effects of climate change with a specific focus on Asia. Subsequently, the question how climate change might impact on migration and what are the most important dimensions of the problem will be addressed. In a second and concluding step, it will be discussed why it is useful to include human rights concepts into the basic concepts of vulnerability and adaptation in the context of climate-related migration and what might be appropriate policies to comprehensively address this issue and to guarantee the protection of people moving in the context of environmental and climate change.

2. OUTLINING THE MOST IMPORTANT ASPECTS OF THE DEBATE ON MIGRATION AND CLIMATE CHANGE

a. The Effects of Climate Change with a Specific Focus on Asia

As already indicated environmental hazards have always constituted a reason for people to move. However, climate change will presumably intensify environmental threats. The Climate Change, Environment and Migration Alliance states:

Climate change is likely to exacerbate (a) the frequency and intensity of extreme weather events (e.g. tropical storms, floods, heat waves) (b) gradual processes of environmental degradation (e.g. desertification, soil and coastal erosion). These effects of climate change as well as its adverse consequences for livelihoods, public health, food security, and water availability will have a major impact on human mobility, likely leading to a substantial rise in its scale. (CCEMA, 2010: 1)

Also the IPCC stresses that the human influence on the climate system is evident, the anthropogenic emissions of greenhouse gases are the highest in history and the warming of the system is unequivocal and unprecedented over decades to millennia (IPCC, 2014b: 40). The observed impacts attributed to climate change include:

- Changing precipitation or melting snow and ice are altering hydrological systems, having a qualitative and quantitative effect on water resources
- Negative impacts on crop yields
- Changes in extreme weather and climate events

- Decrease in the number of cold days and nights and increase in the number of warm days and nights
- Increase in heavy precipitation events
- Increase in extreme sea levels
- Impacts from climate-related extremes such as heat waves, droughts, floods, cyclones and wildfires on some ecosystems and many human systems
- Direct and insured losses from weather-related disasters have increased substantially in recent decades (IPCC, 2014b: 49-53).

For Asia the IPCC observes that warming trends and the rise in temperature have been noticed across most of the Asian region over the past century, that water scarcity will be a major challenge, that, although the effect of climate change on food production and food security will vary across the Asian continent, many regions are likely to face a decline in productivity and coastal and marine systems will be under increased pressure. In addition, many problems caused by rapid urbanization, industrialization and economic development will be exacerbated by climate change and “extreme climate events will have an increasing impact on human health, security, livelihoods, and poverty, with the type and magnitude of impact varying across Asia” (IPCC, 2014a: 1330-1331).

Despite growing scientific evidence that climate change will have severe consequences for human beings and “[t]he impact of environmental change on migration will increase in the future”, the question of how many people are likely to move is very difficult to answer (see, e.g., Brown, 2008; Martin, 2015). Initially, there were huge numbers circulating on how many people will migrate or will be displaced due to various impacts of climate change. Recently, the estimates seem to be more cautious because it has become clear that the interrelation between climate and environmental change and migration is quite complicated and very often the impact on migration is indirect. In addition, different regions of the world will be affected in different ways depending on factors such as exposure, wealth, population density and others.

Thus, climate and environmental change not only impacts on a certain social, economic, cultural and political context—very often grasped with the term “vulnerability” (see, for example, Adger, 2006)—it also interacts with other social, economic, cultural and political factors and, hence, affects the lives and livelihoods of different groups and individuals in diverse and different ways. The impact of climate change often is only one among other factors leading to the decision to migrate. The “multi-causality” (Boano, Zetter and Morris, 2008: 9) or “multiple determinants of migration” (Piguet, Pécoud and Guchteneire, 2011: 12) or multiple “drivers of migration” (Black, Bennett, Thomas and Beddington, 2011: 448) are closely interlinked; hence, it is pointless to scrutinize one of them without taking into consideration the others. Black, Bennett, Thomas and Beddington (2011: 448) have identified five drivers of migration: social

drivers (e.g., education, family), political drivers (e.g., discrimination, persecution, governance, conflict, policy incentives), demographic drivers (e.g., population size and structure), economic drivers (employment opportunities, income, producer and consumer prices) and environmental drivers (exposure to hazard, ecosystem services, habitability, food/energy/water security).

b. Migration Responses

There is a broad range of migration responses and strategies which are associated with environmental and climate change. In general, there are several ways to distinguish between different forms of migration in this context. The first has already been discussed above and locates the movement of people in the context of environmental and climate change on a continuum between voluntary and forced forms of migration. The latter is also very often referred to as displacement while forms of “voluntary” movement are also discussed under the label of adaptation. Understanding migration as a form of adaptation refers to the fact that migration might be a strategy to adjust to environmental changes in order to reduce vulnerabilities or enhance the resilience of a community, of certain groups or families, for example, through remittances sent back to the people staying behind. Thus, migration can contribute positively to strengthening the adaptive capacities of the population or families in the countries of origin. “Migration may be the most effective way to allow people to diversify income and build resilience where environmental change threatens livelihoods” (Black, Bennett, Thomas and Beddington, 2011: 448).

A second distinction is commonly made concerning the duration of migration or displacement, including permanent, temporary, circular or seasonal movements. A third difference which is very important with regard to the (legal) “protection”⁴ of people affected is movement or displacement within a country or with crossing international borders. The protection of people moving in the context of climate change is generally diagnosed to be inadequate. “Today, no legal instrument defines or offers *direct*, clear and relevant protection to all ‘environmental refugees’: it remains to be constructed” (Cournil, 2011: 364). Especially when it comes to displacement across international borders there is a serious “protection gap”.⁵

⁴ In accordance with the Nansen Initiative the term protection is used “to refer to any positive action, whether or not based on legal obligations, undertaken by States on behalf of disaster displaced persons or persons at risk of being displaced that aim at obtaining full respect for the rights of the individual in accordance with the letter and spirit of applicable bodies of law, namely human rights law, international humanitarian law and refugee law” (The Nansen Initiative, 2015: 3).

⁵ The protection gap was also acknowledged in the Nansen Principles (Principle No. ix stresses that “[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” and that states “[...] could develop a guiding framework or instrument in this regard.”).

Another differentiation, which will be elaborated a bit more closely in the following paragraphs, is frequently drawn with regard to the nature of disasters. The most striking category constitutes *sudden-onset disasters* including tropical cyclones, heavy rains and floods. They very often cause short-term internal displacement and movement but may also cause displacements for longer periods (“protracted” displacement), for example due to uninhabitability of houses and settlements as a result of a disaster. According to estimates of the International Displacement Monitoring Center (IDMC) 17.5 million people were displaced by weather-related disasters in 2014. At an average, 22.5 million people have been displaced each year as a result of climate or weather-related disasters in the last seven years— that is equivalent to 62,000 people every day. When it comes to historical trends, the IDMC says that reviewing data from 1970 to 2014 suggests that “the likelihood of being displaced by a disaster today is 60 percent higher than it was four decades ago” (IDMC, 2015: 8). Due to its size of population Asia is the continent most affected by various forms of disaster. The IDMC estimated that in 2014, “16.7 million people were forced to flee their homes, accounting for 87 per cent of the global total [...]. The region was also disproportionately affected relative to its population size” (2015: 30; see also IPCC, 2014a: 1346). China, India and the Philippines were the worst affected countries worldwide in 2014. They not only had to cope with the highest number of displaced people in 2014 and during the period between 2008 and 2014 but also suffered from 15 of the 20 largest events in 2014 (Ibid.: 36). Floods and storms constituted a significant part of these events. The IDMC also emphasizes that the common assumption that sudden on-set events only cause short-term displacement cannot be sustained. Although there is a lack of data there is quite a high number of people displaced by a disaster for several years up to several decades. Concerning Asia, the IDMC refers to Pakistan, Bangladesh and Indonesia, where thousands of people have been displaced due to floods, landslides or cyclones for up to ten years, including “people whose former homes have become permanently inaccessible or unsafe, informal settlers, poor tenants and people who face discrimination based on their class, ethnicity, gender or age” (IDMC, 2015: 47).

Another category refers to different patterns of migration due to *slow-onset processes* such as degradation of the environment, de- or increase of precipitation, increase in droughts or rise of sea levels. This kind of migration is difficult to grasp—also in terms of statistical data—as the impact of climate change on the decision to migrate is very often an indirect one. The impact of rising sea levels on coastal systems and low-lying areas and, thus, on human settlement in these regions will be serious. Without taking into consideration future adaptation measures to protect the population residing in these areas it is estimated that “72 to 187 million people will be displaced due to land loss due to submergence and erosion by 2100” (IPCC, 2014a: 382). The IPCC further highlights that Asia will be particularly affected by this kind of environmental threat as cities “identified for both population and asset exposure” are concentrated in Asia

(Ibid.: 555). However, it has to be emphasized that these numbers are estimates not taking into consideration adaptation measures to protect cities and settlements. That means, it does not say anything about the actual number of people who are going to migrate from these areas due to the rise of sea levels.

The degradation of the environment, de- or increase of precipitation, desertification and increase in droughts are examples of other slow-onset processes where the effect on migration is difficult to ascertain as those forms of movement are closely interlinked with or are having an effect on social, economic, political or other factors which have an impact on the decision to migrate. The Climate Change, Environment and Migration Alliance states:

Although slow-onset environmental processes are less visible than extreme events, over longer timescales, they tend to have a greater impact on the movement of people than natural disasters. Slow-onset events can produce a wide spectrum of migration flows, including cross-border as well as rural to rural and rural to urban, with the majority of movements likely to take place either internally or cross-border to neighbouring countries. (CEEMA, 2010: 2)

Although researchers are generally agreeing on the thesis that slow-onset processes of the environment have an effect on migration and that migration is often used as an adaptation strategy in this context (see above), the prognosis on how many people will do so are very cautious. Studies suggest that environmental degradation especially has an effect on economic drivers, thus, impacting on household wealth and income. The Foresight Report states that environmental change “is likely to lead to an increase in short term, rural-rural migration as households look to diversify incomes and secure livelihoods. It is also likely to reduce longer-distance migration, which requires economic assets” (Foresight, 2011: 71, see also Geddes, 2015: 481; Hugo, 2010: 25-26). The thesis that environmental changes have indirect effects on migration through their negative impact on income and wages has been confirmed by various studies (e.g., Coniglio and Pesce, 2015; Beine and Parsons, 2013). In addition, environmental change can also interact with social drivers, which, for example, means people are more likely to migrate if they have social networks which help them in moving to another place, finding a job or an apartment etc. Such “migration networks” constitute an important social resource (Hugo, 2010: 24-25). Political factors such as conflict may also exacerbate movement, or, on the contrary, “interaction of environmental change with conflict and poverty means that planned, safe migration may not be an option and consequently people can become extremely vulnerable and ‘trapped’ in dangerous circumstances” (Foresight, 2011:73). The issue of “trapped populations” refers to people who cannot move although the environment is deteriorating and becoming a serious threat because they don’t have the means to do so. Migration needs financial and social resources and people who do not “possess the assets to migrate will be trapped in increasingly

precarious environments” (Geddes 2015: 486). Thus, environmental change can increase the incentive to move, but it can also limit the capacity to do so. “The greatest risks will be borne by those who are unable or unwilling to relocate, and may be exacerbated by maladaptive policies designed to prevent migration” (Black, Bennett, Thomas and Beddington, 2011: 447). Limits to movement might comprise financial barriers such as costs of transport or subsistence on arrival, information barriers such as a lack of education and knowledge as well as legal barriers, including a lack of legal possibilities to migrate (see Barnett and Webber, 2010: 41-42).

The interrelation between migration as a consequence of sudden- and slow-onset disasters is quite complex. Sometimes sudden-onset disasters can exacerbate slow-onset disasters (Martin, 2015: 12) or—also due to the degradation of the environment—people may move towards areas, mostly cities, prone to disasters (IDMC, 2015: 8 and 24):

Most modern urban centres were founded centuries ago based on considerations of defence, agricultural viability and transport. These factors drove humans to settle in areas prone to hazards, along coasts and rivers, on flood plains and in seismically active areas. When urban growth in such areas is well managed, the risk of displacement may increase only modestly. In many developing countries, however, urban growth has been rapid, unplanned and poorly governed, leading to high exposure and vulnerability. (IDMC, 2015: 24)

Another dimension of climate change-related movement should be briefly mentioned in this context, namely, migration or displacement as a result of climate change policies or measures. These very often problematic movements are usually closely related to development-induced displacement/migration, such as the eviction or resettlement of people in the course of building hydro plants (Barro Blanco dam in Panama, Bujagali dam in Uganda).

3. VULNERABILITY, ADAPTATION, MIGRATION— CONCLUDING THOUGHTS ON INTEGRATING HUMAN RIGHTS INTO POLICY RESPONSES

The concept of vulnerability, as indicated above, is an important analytical tool for grasping the complex interrelation between social and natural systems which not only provides the context for responding to the effects of climate change but also the decision to migrate. The IPCC has defined vulnerability as “the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity” (IPCC, 2008: 883). Vulnerability has increasingly been used

in the field of human rights as the concept is compatible to integrate a human rights language. Most of the issues which make an individual person, a community, a region or a state susceptible to negative effects of climate changes are human rights issues such as poverty, discrimination and political hardships or other socio-economic characteristics described in the following quote:

Our analysis also point out the importance of the socio-economic characteristics of the origin country (such as the level of development and the vulnerability of the agricultural sector) in shaping the nexus between climate shocks and international migration flows. In general, countries with a lower level of development and a relatively larger agricultural sector are more sensitive to climate shocks. (Coniglio and Pesce, 2015: 436)

Thus, climate change will not only have “a profound effect on the enjoyment of human rights for individuals and communities across the planet” (UNEP, 2015: VIII), climate change will affect those people most whose human rights, especially social and economic rights, are precarious or even infringed in the first place. Guaranteeing the rights of the people affected would decrease their vulnerability and increase the capacity to adapt to climate change in profound ways.

This leads to another concept which is important in this context, the concept of adaptation.⁶ Adaptation means the reduction of vulnerabilities of communities to impacts of climate changes and may involve migratory as well as non-migratory responses. In the following and in conclusion to this article, some basic ideas will be outlined regarding what policy measures are needed and in what way human rights should be integrated into policy responses addressing the complex issue of migration in the context of climate change.

Conceptualizing *migration as an adaptation strategy* means recognizing the fundamental understanding that migration is not a failure to adapt to climate change but part of the solution. From a human rights perspective, this understanding would involve the objective of ensuring the respect of human rights of migrants in all phases of movement as well as providing legal ways of labour migration. This would have the effect that migrants do not have to resort to unsafe ways of movement, such as trafficking

⁶ The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (2007) (AR4) defines adaptation as follows: “Adaptation to climate change takes place through adjustments to reduce vulnerability or enhance resilience in response to observed or expected changes in climate and associated extreme weather events. Adaptation occurs in physical, ecological and human systems. It involves changes in social and environmental processes, perceptions of climate risk, practices and functions to reduce potential damages or to realise new opportunities. Adaptations include anticipatory and reactive actions, private and public initiatives, and can relate to projected changes in temperature and current climate variations and extremes that may be altered with climate change. In practice, adaptations tend to be on-going processes, reflecting many factors of stresses, rather than discrete measures to address climate change specifically” (IPCC, 2007: 720).

or smuggling, which not only endangers their lives but also makes them vulnerable to various forms of exploitation. In order to guarantee the human rights of migrant workers, it is advisable that all states adopt the *International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families*.

Furthermore, it is important to ensure the protection of internationally as well as internally displaced persons due to extreme weather events. The Nansen Initiative⁷ has collected valuable practices and recommendations in this regard (The Nansen Initiative, 2015). In general, the Initiative calls on states to ensure “increased preparedness, solidarity and cooperation by States, (sub-)regional organizations and the international community to prevent, avoid, and respond to disaster displacement and its causes” (Ibid.: I-II). Concerning the protection of internally displaced persons the Nansen Initiative refers to the UN Guiding Principle on Internal Displacement as the most important framework for the protection of IDPs. With regard to internationally displaced persons the Initiative recommends a range of measures involving the admittance of such persons into the territory of other states or refraining from returning persons to a disaster-affected country.

In addition, it would be important to integrate migration considerations and strategies in international climate change policies.

There are a broad range of non-migratory adaptation strategies. From a human rights perspective it would be recommendable to address and decrease vulnerabilities by enhancing and ensuring all human rights (particularly social and economic rights). Measures in this regard might include poverty-reduction programmes, education and training programmes, development policies aiming at the strengthening of people particularly vulnerable to the impact of climate change and, in general, information campaigns on potential risks and ways of capacity building.

In addition, it would be vital to integrate human rights obligations and safeguards in National Adaptation Plans and Disaster Management Plans, while guaranteeing the participation of affected persons as well as civil society organisations at all levels. At an international level, it is vital to acknowledge the importance of human rights for all climate change policies and integrate human rights safeguards in the international climate change regime.

This article has repeatedly emphasized that the relationship between climate change and migration is a multi-faceted and complex issue, posing new and unprecedented challenges to the international system and requiring complex, multi-layered

⁷ The Nansen Initiative is a government-funded process “intended to identify effective practices and build consensus on key principles and elements to address the protection and assistance needs of persons displaced across borders in the context of disasters, including the adverse effects of climate change” (The Nansen Initiative, 2015: I).

and global policy responses. Integrating human rights in all these policies would not only mean a step to actually protect people affected by and migrating in the context of climate change, it would also signify adopting comprehensive and sustainable solutions in order to tackle the challenges of climate change.

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