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Climate Justice and Migration
Mobility, Development, and Displacement
in the Global South

Edited by Ali Nobil Ahmad and the Heinrich Böll Foundation

CLIMATE JUSTICE AND MIGRATION

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Note

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Climate Justice and Migration: Mobility, Development, and Displacement in the Global South

Volume 57 of the Publication Series on Democracy

Edited by Ali Nobil Ahmad and the Heinrich Böll Foundation

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FOREWORD

The climate crisis is the greatest threat confronting humanity today. Its devastating implications for peace and security, human rights, health and ecological sustainability are already being felt across the planet. Every day, millions of people all over the world are witnessing the destruction of their homes and livelihoods. For them, the climate crisis manifests itself as desertification and crop failure, soil salinity and water scarcity, floods and deadly heat waves. It has compounded hunger and poverty and, as a result, exacerbated conflict and displacement.

In many ways, the climate crisis is a crisis of global justice: Although industrialised countries such as Germany have contributed to today's global warming far more than their counterparts in the Global South, the latter will bear the brunt of its harshest consequences. Within the Global South, in turn, it is the most vulnerable groups that suffer most: those dependent on natural resources for their subsistence and livelihoods; those with least ability to protect themselves or adapt – women, children, Indigenous people and other marginalised populations. As a result, the climate crisis acts as a multiplier of existing injustices, with a tendency to amplify conflicts, and to further undermine fundamental human rights such as the right to food, water, shelter, education, and health; the right to dignity, and to life itself.

Already today, the climate crisis is causing immeasurable damage to homelands, community structures, and cultural heritage, threatening traditions and ways of life that are thousands of years old. According to the Platform on Disaster Displacement, an estimated 25 to 30 million people were displaced by climate-related disasters every year between 2008 and 2017.

Currently, there are more internally displaced people as a result of environmental disasters than of violence and conflict. It is challenging, if not impossible, to predict with any great precision how many people will be forced out of their homes in the context of the climate crisis. The World Bank estimates that 140 million people will be displaced by 2050 in sub-Saharan Africa, South Asia and South America alone.

However, one thing is certain: We need to gather more data and support research on climate-induced displacement, and thereby close the gaps in our knowledge as much as possible – otherwise, just policies will be even more difficult to design than they are at present. It is time to treat the topic with the seriousness it merits and to make it a key priority for governments around the world. It is a globally shared responsibility to drastically limit the harmful effects of human activity on the global climate, and to respond to the unfolding humanitarian crises that result from it.

Berlin, November 2020

Claudia Roth, Vicepresident of the German Bundestag

PREFACE AND INTRODUCTION

Amidst the upheaval caused by the ongoing global health crisis, much of what we thought we knew about policymaking has been called into question. Above all, the assumption that growth-oriented societies cannot be radically altered in short spans of time has been rendered demonstrably false. For all the misery wrought by the devastating spread of Covid-19, the rapidity and radical extent of societal response has been a powerful lesson in the capacity and willingness of humans to change behaviour.

It is, of course, too early to talk about positives. If anything, a more anxious world of tighter borders, in which states subject citizens and foreigners to ever-harsher forms of surveillance, could be taking shape. And yet, in political terms, the pandemic has managed what scores of avowedly progressive politicians have proven incapable of doing for most of the previous decade. It has exposed the emptiness of flag-waving populism and, alongside the terrible killing of George Floyd in Minneapolis, drawn attention to social and racial inequality and injustice.

What does this mean for policy-relevant research on climate change and migration? The events of 2020 have reminded us that new scenarios and information can spur individuals, groups and institutions to view and act differently on matters of longstanding concern. Indeed, the Black Lives Matter protests suggest the presentation of old information in new ways can be sufficient to trigger reconsideration of age-old systemic cruelties. Scholarship and journalism targeting the mainstream, it follows, need not concede the centre ground to outmoded ideas that appear immovable for no reason other than their prior hegemony. Now is a time to propose alternative ways of understanding and legislating to address issues that have been ignored or narrowly framed in the past; to advance new modes of thinking (and unthinking), particularly those that emerge from the experiences and advocacy of individuals, groups, organisations and social movements located at the peripheries.

The writings compiled in this volume provide fresh perspectives on the subject of climate justice and mobility by leading scholars, experts, activists and journalists across a range of formats and genres. Its geographic and thematic scope is broad, with coverage of Asia, Africa, Latin America and the Caribbean across a range of scales and topics spanning health and socio-economic development to law and politics. In methodological terms, the approaches deployed encompass anthropological observation, legal analysis, sociological inquiry and journalistic investigation.

Scholarly jargon has been avoided, but the overall terminological framing requires two brief comments. Firstly, the term «mobility» is preferred over widely used alternatives, a choice that seeks to disassociate our object of study from some of the baggage that comes with bureaucratic classifications. Legal issues are

crucial, and the question of «climate refugees» is addressed at length in the pages that follow (Kent and Behrman). But so too are many other scenarios of climate-induced movement and sedentariness not recognised by law or policy. Mobility – a capacious concept encapsulating all types of migration and immobility – allows for consideration of diverse phenomena within a single analytical framework.

Secondly, the title makes reference to climate «justice» (rather than climate change). This is indicative of an ethical commitment to life, livelihoods and struggles against inequality. Lest this normative orientation be construed as idealistic, it is worth making the point that public investment in welfare should not be assumed to be more expensive than mantras that prioritise productivity and efficiency. As will be seen in the pages that follow, justice is neither a luxurious extravagance nor a question of morality. Rather, it is a rational response to the challenges of climate-induced mobility. If we have learnt one thing of relevance to climate change in 2020, it is that when it comes to the health and wellbeing of mobile and immobile humanity beyond our own households, tribes, nations and borders, we are all stakeholders.

«Climate refugees»

How did migration – a basic fact of human history – come to be viewed as a pathology that threatens the security and integrity of nation-states? A fulsome answer to this question is beyond the scope of this introduction. Suffice it to say, the instincts and ideas that drive migration policies in Europe stem predominantly from narrowly defined concerns about «security», «terrorism», and dubiously conceived threats to Western culture («the European way of life»)¹. That such concerns are not necessarily rational is apparent from the disproportionate anxiety over numbers, welfare burdens, and the supposed criminal threats presented by mobile populations from Asia and Africa. From Hungary to the United Kingdom, democratic elections and referenda can be won and lost on the basis of race-based majoritarian fears of demographic change («The Great [white] Replacement»)².

Having entered popular consciousness independently of global heating, migration discourse rarely makes explicit reference to climate change. However, with growing awareness among electorates about the impending threat of environmental catastrophe and species extinction, the ecological crisis is becoming increasingly enmeshed with alarmism over immigration. This is particularly evident in the realm of policymaking, where the convergence of these issues can be traced back

1 In 2019, «Protecting the European way of life» was made the responsibility of the EU's most senior migration official, EU Commission Vice President Margaritis Schinas.

2 For an interesting discussion of this idea and its origins, see Polakow-Suransky, S., and Widman, S. (2019, March 18), «The Inspiration for Terrorism in New Zealand Came from France», *Foreign Policy*, available at: <https://foreignpolicy.com/2019/03/16/the-inspiration-for-terrorism-in-new-zealand-came-from-france-christchurch-brenton-tarrant-renaud-camus-jean-raspail-identitarians-white-nationalism> (accessed 1 September 2020).

to the early 1990s, when American strategists were assessing threats to Western security in a post-Cold War world.³

It is no coincidence that the legal rights of climate refugees within the international order remain underdeveloped (see Kent and Behrman, this volume). Involutions of this category can obfuscate the complex, multidimensional relationship between human motion and ecosystems, serving as a vehicle for climate-reductionism that downplays the role of political and social inequalities that shape and direct mobility and immobility (see Fröhlich, this volume).⁴ As can be seen in some of the cruder recent attempts to quantify and/or inappropriately foreground the role of environmental factors in generating the Syrian uprising and subsequent refugee «crisis» in Europe, attempts to link climate change with conflict can be motivated by calls for securitisation of borders rather than protective rights for migrants.

«Adaptation» and «resilience»

«Adaptation», a widely used term in policy documents since the 2010s, offers a more hopeful, optimistic outlook than the alarmist, pessimistic discourses of environmental apocalypse. It focuses on the livelihoods of migrants and increasingly accepts the inevitability of mobility as an economic strategy that will ensure their survival under worsening climate change.⁵ It is also more attuned to what historians of migration are at pains to emphasise: Environmental migration is neither new, nor necessarily born of crisis (see Gaibazzi, this volume). Part of traditional livelihood strategies, it has been stigmatised by colonial and post-colonial states, which have criminalised the mobility of pastoralists and tribes in a bid to modernise agriculture and promote private property.⁶

That being said, this volume treats with suspicion policy articulations of «adaptation» that put a dangerously laissez-faire, fatalistic emphasis on «disaster preparedness» that gives up on prevention and mitigation while refusing to countenance resource redistribution. When invoked alongside calls for «resilience», the unwarranted optimism of such calls for adaptation serves as an ideological justification for leaving «surplus humanity» to its own fate as climate change intensifies. Having risen to prominence in a world rocked by three decades of economic deregulation across a range of policy fields, its language of survival narrows life to coping

3 Kaplan, R. (1994), «The Coming Anarchy», *The Atlantic*, available at: www.theatlantic.com/magazine/archive/1994/02/the-coming-anarchy/304670 (accessed 23 September 2020).

4 A 2019 special issue of the journal *Mobilities* (vol. 14, nr. 3) conceptualising climate migration as «mobility in the anthropocene» contains several extensive critiques.

5 Warner, K. (2012), «Human Migration and Displacement in the Context of Adaptation to Climate Change: The Cancun Adaptation Framework and Potential for Future Action», *Environment and Planning C* 30(6), 1061–77.

6 Fahrenhorst, B. (2019, November 26–27), «Forced Migration As a Result of the Collapse of the Traditional Climate-resilient Rural Livelihoods in African Drylands», workshop paper presented at «Climate Justice and Migration: Mobility, Development and Displacement in the Global South», a collaboration between Heinrich-Böll-Stiftung and Leibniz-Zentrum Moderner Orient, Berlin.

and/or barely subsisting, with responsibility for provision of resources, funds and support foisted on affected individuals and groups.⁷

In many respects, «the resilient subject» is no less of an abstraction than the trope of the climate refugee. Both are products of an imagination that cannot envisage a world order of mobility other than the current regime. Where the climate refugee terrifies the West with the prospect of turning up on its doorstep, the resilient subject remains «emplaced», bearing responsibility for his/her own continued existence at the planetary peripheries. In doing so, he/she absolves the consciences, treasuries and taxpayers in affluent, carbon-intensive societies, regions and social classes of any obligations that might stem from feelings of common humanity, or indeed a sense of justice stemming from the fact that their need to be «resilient» is rarely a result of their own lifestyles and activities.⁸

Like many pessimists who warn of impending socio-political breakdown, optimistic proponents of «resilience» cannot imagine a world order in which resources and power are distributed differently to the one that has produced ecological crisis. Rarely, if ever, do they make reference to the political economy of unequal land distribution. Framing climate-induced mobility in Malthusian terms, resilience serves as an emblem of the status quo's post-apocalyptic survival. (It is the migrant who must «adapt», not the system that displaces him/her.) And just as climate-reductionist alarmism makes no mention of the complex, manifold factors that cause and drive resource-conflict and displacement, those who assess the consequences of mobility through adaptation flatten them into a single dimension: the economy. As at least one contribution to this volume (McMichael) argues, the idea of «adaptation» is too often deployed narrowly, in a way that does not encompass health and wellbeing.

At its most sordid, climate-change «adaptation» promoted by government, international agencies and market-obsessed organisations can be synonymous with strategies that prioritise profits rather than people. As such, it functions as a kind of green, anticipatory «disaster capitalism», which can have perverse impacts on mobility, for instance by driving up land prices in urban areas to the extent that relocation to cities becomes unaffordable (see Sauer's essay on Palau, this volume), or negatively affecting the livelihoods of rural populations, for instance by promoting new kinds of export-oriented farming in coastal areas that undermines traditional modes of fishing (see Anwar and Sur, this volume).

Climate justice: Broadening the framework

The existential threat confronting tiny populations of Pacific Islands such as Kiribati and Tuvalu represents one of the most direct, visible, and dramatic types of climate-induced migration. Many such populations, whose carbon emissions

7 Diprose, K. (2014), «Resilience Is Futile: The Cultivation of Resilience Is Not an Answer to Austerity and Poverty», *Soundings* 58, 44–56.

8 Evans, B., and Reid, J. (2013), Dangerously Exposed: The Life and Death of the Resilient Subject, *Resilience* 1(2), 83–98.

are negligible, have already incurred extensive loss and damages due to extreme weather events. Understandably, the grim prospect of their submergence beneath the sea has ensured that the plight of small island states figures prominently in political and media discourse about the far-reaching migratory implications of climate change. Several of the best-researched territories have effectively become «poster children» of campaigns for mitigation and/or planned relocation.

Without detracting from the very real prospect of their disappearance under water in coming decades, Natalie Sauer's report in this volume on the less studied island of Palau sheds light on the complex nature of lived experience in such settings, which is more internally varied and mediated by socio-economic difference than generally assumed. Far from a generalised portrayal of desperation to escape, we encounter individuals and communities still wedded to staying put, some of whom are still arriving as immigrants. Of those who do wish to emigrate, many seek to relocate internally rather than internationally, in accordance with distinct capacities and social networks. Pathways are shaped and mediated by social class, gentrification, and disputatious property relations as much as by extreme «natural» events such as hurricanes – if not more than.

Broadening the temporal scope of what we understand as climate-induced mobility to encompass slow-onset forms of displacement is essential for a comprehensive, justice-based international response. Currently, the plights of those whose woes accrue over lesser velocities – for instance, as a result of coastal erosion that forces migration in small, incremental steps – are accorded little attention. As Harms' investigation in this volume on marginality in the Bengal Delta shows, displacement can begin with moving to a different part of one's own land in the first instance, and continue to unfold over several years before causing actual relocation. The consequences for individuals for slow displacements such as these can be equally if not more devastating than temporary trauma resulting from disasters, because land lost to the sea can never be regained and is rarely compensated.

Development and urbanisation

The difficulty of disentangling environmental factors from the multiple drivers of internal displacement and rural-to-urban migration is often acute. It makes little sense, for instance, to devise policy to combat climate-induced migration without addressing the larger question of its relationship with economic development. Agricultural modernisation and urbanisation present two particularly important factors that already shape the mobility of populations in the Global South. Given the colossal scale of historic and contemporary dislocation caused by resource extraction, land acquisitions by corporations and governments, and infrastructure projects such as economic corridors in rural areas,⁹ policies that seek to «emplace»

9 This latest bid to attack migration's «root cause» is not unprecedented. For an early critique, see Thorburn, J. (1996), «Root Cause Approaches to Forced Migration: Part of a Comprehensive Strategy? A European Perspective», *Journal of Refugee Studies* 9(2), 119–35.

migrants by engaging them in farming or targeting «root causes» seem wishful (see Gaibazzi, this volume).¹⁰ As for those who seek to migrate voluntarily, they have been ushered towards cities by the economic system itself at breakneck speed since at least the 1980s.

A more sensible approach to attempting to discourage migration through development would be to consider what some rural and Indigenous communities have been demanding through their own representatives and leaders on the world stage and at the local level for several decades (see bin Rashid, de Sousa, this volume): land redistribution, the retention (or adoption) of peasant identity, and livelihood strategies based on sustainable farming and attachment to place. Herein lies the difference between the top-down «comprehensive approach» to restricting mobility through tried, tested and failed models of development on the one hand, and on the other a climate justice-based empowerment of rural populations that acknowledges their right to live in dignity on the land they steward. Unlike the former, the latter recognises the sovereignty, traditions, knowledge and cosmologies of the peasantry as being central to the sustainability of a global food system upon which we all depend.

Not that everyone in the Global South wants to be a farmer, of course. Empowering those who wish to stay put cannot be an exercise in social engineering or coercive de-urbanisation based on reified notions of the peasantry.¹¹ Climate-induced migration in the Global South is equally a question of governance in cities which are likely to be on the frontlines when extreme weather events result in massive displacement. Where nation-states tend towards border fortification to protect abstract and territorial space from outsiders, localities, neighbourhoods and cities are sites of struggle for climate and mobility justice in which public participation, grassroots initiatives, inclusive provisioning and mobilisation can provide the basis of solidarity that counters xenophobia and racism.¹²

Yet cities lack the political power, autonomy and resources of nation-states. In cities, as in rural domains, there is no easy way to separate the suffering caused by global warming from the workings of a system that has normalised displacement, disenfranchisement and precarity among the poor, many of whom are rural migrants living at the urban-rural interface in peripheral zones of cities where public service provision is minimal or absent. Part of the problem stems from the unplanned nature of Asian and African cities, where the bulk of rural-to-urban migration results in informal settlement, both in mega cities and more recent, spontaneously formed urban conglomerations, which receive less funding

10 See bin Rashid, this volume, and Sassen, S. (2014), *Expulsions* (Cambridge, MA: Harvard University Press).

11 For a discussion, see Edelman, M. (2013), «What Is a Peasant? What Are Peasantaries?», a briefing paper on issues of definition (New York, NY: Hunter College, Graduate Centre), available at: www.ohchr.org/documents/hrbodies/hrcouncil/wgpleasants/edelman.pdf (accessed 1 September 2020).

12 Turhan, E., and Armeiero, M. (2019), «Of (Not) Being Neighbors: Cities, Citizens and Climate Change in an Age of Migrations», *Mobilities* 14(3), 363–74.

than their larger, more powerful metropolitan counterparts. The other part of the problem is that planning itself – in so far as it does exist – is subordinate to powerful agendas and regimes of urban development that, like their rural equivalents, systematically uproot the poor, whose residences and economic activities are routinely displaced and destroyed to make way for gentrified housing enclaves, infrastructure and commercial buildings. In South Asia, the poor are equally, if not more likely, to face ruin by bulldozers than weather events. Those who evade eviction cannot escape the negative health consequences of global heating, which, when combined with dirty industry, road traffic, slash-and-burn agriculture and construction, results in dwindling access to water, suffocating levels of atmospheric toxicity and alarming increases in temperature in densely populated areas (see Anwar and Sur, this volume).

Many of the worst affected by these increasingly difficult conditions in cities are migrant workers from rural areas who have effectively moved into zones of climate risk (see McMichael, this volume). This underlines the importance of understanding climate-induced mobility as part of a broader ecology of motion, in which those who flee disasters are just one of the many constituencies affected by climate change. Others include those who might otherwise migrate but have become trapped (involuntarily immobile) or suspended by other contextual factors in zones of climate risk. The contribution by Taylor and Cupido to this volume, for instance, considers a curious case of «displacement in place» (or «dis-placement») in South Africa, where economically devastated farming communities in the Northern Cape have entered a condition of dependency on state disbursements that makes migration to cities unlikely. The authors use the term «refugee camp» in a non-legal, sociological sense to refer to the dwellings of this population, whose locality has been dramatically diminished, resulting in downward social mobility and severe mental and physical health risks.¹³

Care work, climate work: Towards a new realism

Germany is leading calls for global warming to be taken seriously at the highest echelons of world power, using its chairmanship of the United Nations Security Council to push for urgent attention to the impacts of climate change on peace and security. Foreign Minister Heiko Maas commissioned a comprehensive report – to be published in 2022 – on climate security risks at the second Berlin Climate and Security Conference in 2019. Its objective to identify concrete policy solutions that will enhance the capacity of states to deal with climate-induced disasters, for instance by creating early warning mechanisms, is laudable and welcomed as an important point of departure for research and policy.

13 For a useful scholarly discussion of «displacement in place», see Lubkemann, S. (2008), «Involuntary Immobility: On a Theoretical Invisibility in Migration Studies», *Journal of Refugee Studies* 21(4), 454–75.

For the report to yield significant improvements in climate and mobility governance, however, it must endeavour to be a starting point for discussions on climate change that go beyond security, taking on board the concerns of civil society and the many constituencies that represent the populations which stand to lose most from global heating: organisations such as the International Organization for Migration (IOM) and the United Nations High Commissioner for Refugees (UNHCR), which can and must cooperate to create better mechanisms of response to deal with the migratory fallouts of global warming.¹⁴ This volume makes a case for legislation and funding to target specific groups and problems relating to climate-induced mobility, with the caveat that additional forms and layers of support for displaced persons must supplement and build upon – not replace – existing rights and protections (see Kent and Behrman, this volume).

At the same time, policymaking must stretch its framework of concern to address the myriad ways in which individuals and groups move and stay put in relation to changing ecologies. Doing so entails loosening the imaginative grip of tropes and archetypes that result in a disproportionate focus of attention and resources upon a handful of displacement situations, and neglect of many others. What we need is a comprehensive raft of policies and reforms across a range of spheres and scales – policies that take shape from listening to a wider array of experts and voices. Some of those closest to the ground will want to change the very basis of discussion to talk about issues that go beyond extreme weather, pointing out that it makes little sense to make arrangements for refugees and internally displaced persons (IDPs) without addressing the incongruities of a system that displaces millions without help from «nature» (see bin Rashid, de Sousa, this volume).

Faced with the threat of climate change, policymaking has responded with fear of climate refugees and/or callous complacency about their resilience to adapt to appalling scenarios. At their most cynical, such perspectives breed an ugly, selfish survivalism that prioritises stockpiling to preserve environmental privilege – the geopolitical equivalent of hoarding toilet paper during a pandemic. Which brings us back, full circle, to lessons of the ongoing health crisis.

As noted in the conversation between three young activists from Asia, Africa and the Caribbean engaged in bringing about environmental change (see Sauer, this volume), care work is climate work and must be acknowledged as such.¹⁵ Part of this recognition consists of ensuring that care systems are robust and fit for purpose. Equally, however, a change in cultural perception must occur, as feminists have been saying for some time. Quite apart from esteeming care work for its nobility and spiritual value, care is emerging as a core tenet of a new, post-pandemic realism that understands the role of justice and welfare as essential lines

¹⁴ Lakeman, S. (2019, November 26–27), «UNHCR and IOM: Mandates and Cooperation in Relation to Environmental Displacement», workshop paper presented at «Climate Justice and Migration: Mobility, Development and Displacement in the Global South», a collaboration between Heinrich-Böll-Stiftung and Leibniz-Zentrum Moderner Orient, Berlin.

¹⁵ For a broader discussion of climate work as care work featuring Naomi Klein, see: <https://lives-tream.com/accounts/4838057/carework/videos/197593858> (accessed 1 September 2020).

of defence against the ravages of ecological instability. Care, justice, and cooperation are not utopian delusions. They are the basis of human survival in the Anthropocene, an era in which chauvinistic posturing, cynical isolationism and brash boasts of control that promise to put autochthonous populations «first» are being swept away by the increasingly undeniable realities of interdependency between and among humans and other species, and the terrifying limits of our grip over nature.

Ali Nobil Ahmad and Kirsten Maas-Albert



A springbok's carcass on a sheep and game farm near Strydenburg, a small town in the semi-arid Karoo region of Northern Cape, where livestock farming has been devastated by protracted drought



Mind the gap: Addressing the plight of climate refugees in international law

The often gradual and diffuse nature of climate change can obscure many of its more devastating effects. But for those forced from their homes as a result of sea-level rise, desertification or increased and more severe extreme weather events, the effects of climate change are already causing acute trauma. From the thousands who lost their homes during the Australian bush fires in the summer of 2019/2020, to the tens of thousands of Pacific Islanders whose habitable land is dramatically shrinking every year, to the hundreds of thousands being forced to migrate annually as a result of desertification in North Africa and Central America, the effects are not merely speculation about what *may* occur in the future.

The relative speed with which climate change is forcing increasing numbers of people to seek a life elsewhere has so far not been met with a matching urgency in devising just alternatives for them. Indeed, the legal constraints on cross-border movement appear to be hardening almost everywhere. Yet, the picture is not as bleak as it may at first appear. Behind the headlines, and often in piecemeal fashion, legal concepts and pathways are being developed. These are sporadic and often inadequate, but nonetheless they represent steps forward, at least in terms of recognising that the problem exists. In this chapter, we shine a light on just a few of these developments and suggest ways in which they can be built upon to produce more effective protections and remedies for climate refugees.

A note on terminology

Before commencing, we would like to make a brief clarification regarding the terminology used here. Few terms have been as hotly debated as «climate refugees». Definitions of each of its components – «climate» and «refugees» – have been extensively contested, and a myriad of alternatives are being used by academics, civil servants and policymakers. The reader should be aware that there is no consensus

on any definition: There are even those who object to any distinction between different types of refugees/migrants, regardless of the cause of movement.¹

We advocate in favour of the term «climate refugees».² The reader should be aware, however, that our choice is controversial and that other terms – including «climate-induced migration», «environmental displacement» or even the obscure/watered-down «disaster displacement» – are often preferred. In brief, our view is that the prefix «climate» (as opposed to, say, «environmental», «disaster», etc.) enables a focus on the specific causes and features of climate change. In particular, there is now a substantial body of scientific evidence that not only demonstrates climate change is man-made, but also identifies the guilty parties. In the context of this discussion, this is important in identifying who is responsible for mitigating the effects on people displaced as a result, and for putting in place the necessary protection regime.

The choice of the term «refugee» is particularly contentious, and we have chosen it after careful deliberation. Opposition to its use in the context of climate change comes largely from refugee lawyers who argue (correctly) that the main instrument of international refugee law does not apply in the absence of persecution. This limitation is discussed in detail below. However, in essence we argue that the narrow definition found in the 1951 Refugee Convention, which defines as a «refugee» only someone who cannot return to their home countries due to a well-founded fear of persecution «for reasons of race, religion, nationality, membership of a particular social group or political opinion»,³ should not monopolise our understanding of the term «refugee»; that indeed alternative understandings of this term exist (including in international law⁴); and that a 70-year-old legal definition should not stop the development of this term, especially in the context of new challenges, such as the effects of climate change.

Moreover, the term «refugee» carries with it a power and a set of associations, beyond that of a single legal definition, which makes it an appropriate one to apply to people forced to leave their homes. It suggests that people who have been forced to abandon their homes and seek refuge are distinct from those who make a more or less free choice, as is common with migrants in general. It also strongly implies a need for protection, which links back to our central argument about responsibility,

1 See, for example, UK Government (2011), *Foresight: Migration and Global Environmental Change*, final project report (London: Government Office for Science), p. 11, available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/287717/11-1116-migration-and-global-environmental-change.pdf.

2 For a much more detailed exposition of our argument, see Kent, A., and Behrman, S. (2018), *Facilitating the Resettlement and Rights of Climate Refugees: An Argument for Developing Existing Principles and Practices* (Abingdon-on-Thames: Routledge), Chapter 2.

3 Article 1(A)2, Convention Relating to the Status of Refugees, 28 July 1951, United Nations, Treaty Series, vol. 189, p. 137.

4 See, for example, UNRWA's definition of «Palestinian Refugees» (available at: www.unrwa.org/palestine-refugees); the Fourth Geneva Convention's treatment of the term «war refugees»; the African Union's 1967 OAU Convention Governing the Specific Aspects of Refugee Problems in Africa; and the 1984 Cartagena Declaration on Refugees.

in both legal and moral terms, for granting access across borders and providing the necessary financial support to enable those affected to rebuild their lives.

Although some object that «refugee» implies «victims» or other negative connotations, our response is twofold. First, the images created of all types of migrants have been degraded in the public consciousness in recent years. Second, it is possible to resist that negativity better by referring to «refugees» rather than alternatives such as «migrants» and «displaced persons». Historically, refugees were both active and heroic figures – think of those who escaped 19th century despotisms in Europe, or the mid-20th century dictatorships. The root meaning of the word⁵ – of people seeking asylum – suggests active subjects in a way that is absent in the widely used descriptor «displaced».

In short, we believe that «climate refugee» captures many of the defining elements of the phenomenon – certainly better than the alternatives – and enables us to better identify the needs of people who are forced from their homes, and who is responsible for addressing their plight. Yet, whatever nomenclature one may choose to describe this phenomenon, it does not change three fundamental facts.

First, those having to migrate due to climate change are not defined as «refugees» under the 1951 Refugee Convention, and therefore do not enjoy the protections that come with this legal status. We elaborate more on this point in the second part of this chapter (see «Mitigation and adaptation»).

Second, climate change is a driver for migration, even if it can be, on many occasions, difficult to distinguish from other causes of migration.⁶ The issue of climate refugees must therefore be addressed primarily⁷ within the wider political and scientific context of climate change.

Third, and most importantly, those having to leave their homes due to the effects of climate change are vulnerable; they require protection, which international law does not currently fully provide. This third element – the gaps in the regulations and the failure of international law to protecting climate refugees – is the focus of this chapter.

5 The term «refugee» is derived from the French verb *se réfugier*, which means to seek shelter from danger; it was first applied to persecuted French Protestants, who fled to England and the Netherlands in the 16th and 17th centuries.

6 See the discussion on causality in the section «The double problem of causality» below.

7 This is not to say that this topic should not be addressed in other forums (e.g. human rights frameworks) as well. The argument here is that climate change debates and negotiations must view climate-induced migration as part and parcel of the wider climate context and as a phenomenon that must be addressed within this debate.

Defining the «legal hole»

What kind of protection should the law provide for climate refugees? There are three types of laws, or three objectives that the law must achieve in order to provide a comprehensive solution to the plight of climate refugees:⁸

- (1) The law should provide protection for climate refugees' most fundamental rights.
- (2) The law must facilitate adaptation and mitigation policies that will reduce (or even eliminate) the risks that are faced by climate refugees.
- (3) The law should enable access to remedies for refugees, as well as for other relevant entities (e.g. refugees' host states).

The following review addresses these three categories. The vulnerability of climate refugees in each situation is discussed, as well as the relevant legal framework that is available to them. The reader will notice that our classification is not rigid, and that different elements related to protection, mitigation and remedies indeed often overlap.

Protection

Protecting rights under international law

The vulnerability of migrants and refugees has been acknowledged by the international community on numerous occasions, including in the context of climate-induced migration.⁹ A Discussion Paper drafted by the Mary Robinson Foundation identified how the act of climate migration might interfere with the enjoyment of fundamental rights, such as the right to culture, work, water, food, housing, access to land, self-determination, freedom of movement and, in the more extreme cases, also the rights to life, liberty and freedom from torture.¹⁰ The UN Office of the United Nations High Commissioner for Human Rights (OHCHR) added to this list other rights, including to sanitation, social security, education, the prohibition of collective expulsion, personal integrity, family unity and effective legal status.¹¹

Certain groups and individuals have demanded protection of these rights under different international fora. In an (unsuccessful) petition made by Inuit

8 Our categories are based on – but slightly different from – Kälin and Schrepfer's categories (mitigation, adaptation and protection); see Kälin, W., and Schrepfer, N. (2012), «Protecting People Crossing Borders in the Context of Climate Change Normative Gaps and Possible Approaches» (UNHCR Legal and Protection Policy Research Series), available at: www.unhcr.org/4f33f1729.pdf.

9 See inter alia the New York Declaration for Refugees and Migrants, the two Global Compacts, the UN Guiding Principles on Internal Displacement and more.

10 Mary Robinson Foundation (2016, September 30), «Human Rights, Migration and Displacement Related to the Adverse Impact of Climate Change», discussion paper, available at: www.ohchr.org/Documents/Issues/ClimateChange/EM2016/HumanRightsMigrationDisplacement.pdf.

11 OHCHR (2018, June 18–July 6), *Report of the United Nations High Commissioner for Human Rights*, Human Rights Council Thirty-eighth session, A/HRC/38/21, available at: <https://undocs.org/pdf?symbol=en/A/HRC/38/21>.

communities to the Inter-American Commission on Human Rights, the petitioners complained that the actions of polluting states (the United States in this case) were leading to climatic changes in the Arctic region. It was claimed that these changes were affecting these communities' ability to sustain their traditional ways of life, interfering with their ability to enjoy their rights to culture, a healthy environment, property (including intellectual property), health, life and more.¹²

In a different petition (pending at the time of writing) that was submitted by a group of children/teenagers (including the well-known activist Greta Thunberg) under the UN Convention on the Rights of the Child, it has been argued that climate change is creating «mass migrations»,¹³ and that certain islands «could become uninhabitable within decades».¹⁴ The petitioners argue with respect to their right to culture that rising sea levels will eventually «decimate indigenous cultures, including those of the indigenous petitioners [...]».¹⁵ With respect to the right to life, the petitioners state that «increasingly hot temperatures are threatening their thousand-year-old subsistence traditions, which are intimately connected to their livelihoods and wellbeing».¹⁶

In another (pending) communication submitted to the UN Human Rights Committee by communities from the Torres Strait Islands, it has been claimed that climate change is «causing regular flooding of land and homes, damaging important cultural sites located on the edges of islands», and is predicted to result in the «total submergence of ancestral homelands».¹⁷ The Islanders therefore claim that Australia's inaction on climate change is interfering with their rights to culture and life, as well as their right to be «free from arbitrary interference with privacy, family and home».¹⁸

In yet another (unsuccessful) communication submitted to the Human Rights Committee, a national of the Republic of Kiribati (Mr Ioane Teitiotia) has claimed that, by returning him to that country, the state of New Zealand has violated his right to life. Life in Kiribati, it was claimed,

12 See review of the petitioners' claims in «Petition to the Inter American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States» (2005), pp. 74–95. The full text of the petition along with responses from the IACHR can be found at <http://climatecasechart.com/non-us-case/petition-to-the-inter-american-commission-on-human-rights-seeking-relief-from-violations-resulting-from-global-warming-caused-by-acts-and-omissions-of-the-united-states>.

13 *Communication to the Committee on the Rights of the Child, in the Case of Chiara Sacchi et al.* (2019), available at: <https://childrensvclimatecrisis.org/wp-content/uploads/2019/09/2019.09.23-CRC-communication-Sacchi-et-al-v.-Argentina-et-al.pdf>.

14 *Ibid.*, p. 2.

15 *Ibid.*, pp. 6, 43.

16 *Ibid.*

17 Although the Communication itself is not publicly available, the NGO that is supporting this claim (Client Earth) has posted an informative Q&A with relevant information, available at: http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2019/20190513_Not-Available_press-release-1.pdf.

18 *Ibid.*

«has become increasingly unstable and precarious due to sea-level rise caused by global warming. Fresh water has become scarce because of salt-water contamination and overcrowding on Tarawa [the island in the archipelago where the Teitiota family is from]. Attempts to combat sea-level rise have largely been ineffective. Inhabitable land on Tarawa has eroded, resulting in a housing crisis and land disputes that have caused numerous fatalities. Kiribati has thus become an untenable and violent environment for the author and his family.»¹⁹

There is no doubt that a significant body of international law is available for the protection of these basic human rights. Treaties such as the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights cover most of the rights mentioned above. Other «core» human rights treaties,²⁰ as well as a long list of regional human rights treaties and domestic laws, are adding more layers of protection. Arguably, certain human rights are protected, also under customary international law, and therefore enjoy universal coverage.²¹

The relevance of this body of human rights laws to migrants and refugees, and the need to enforce them, was recently recognised by the international community through the conclusion of two UN Global Compacts, both of which have defined human rights as a foundational principle.²² The Global Compact for Safe, Orderly and Regular Migration states that it is

«based on international human rights law and upholds the principles of non-regression and non-discrimination. By implementing the Global Compact, we ensure effective respect for and protection and fulfilment of the human rights of all migrants, regardless of their migration status, across all stages of the migration cycle. We also reaffirm the commitment to eliminate all forms of discrimination, including racism, xenophobia and intolerance, against migrants and their families.»²³

On the face of it, the commitment to – and the coverage of – human rights laws seems both impressive and useful. A closer observation, however, reveals that certain problems nevertheless exist. It is useful to discuss the legal situation in two

19 UN Human Rights Committee, «Views Adopted by the Committee under Article 5 (4) of the Optional Protocol», concerning Communication No. 2728/2016 (2020), para. 2.1.

20 For example, the International Convention on the Elimination of All Forms of Racial Discrimination; Convention on the Rights of the Child; Convention on the Rights of Persons with Disabilities; Convention on the Elimination of All Forms of Discrimination against Women; Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment.

21 De Schutter, O. (2019), *International Human Rights Law* (Cambridge: Cambridge University Press), p. 59.

22 Global Compact for Safe, Orderly and Regular Migration, para. 15f.; the Global Compact on Refugees, para. 5.

23 *Ibid.*, para. 15f.

scenarios/contexts: the event of **internal displacement** (i.e. where refugees are not required to cross borders, but simply migrate to other regions within their home country), and the event of **cross-border migration** (i.e. where the refugee will have to cross a border in her search for shelter).

Protecting internally displaced persons (IDPs)

In the case of internal displacement, the legal situation is fairly clear: The above-mentioned body of human rights laws applies, and in most cases it is binding on states. States have reiterated their commitment to this body of law on numerous occasions, including in the more specific context of migration, refugees²⁴ as well as climate change.²⁵

Soft-law-based solutions have also enforced the protection of those internally displaced due to climate change. The most notable document in this respect is the UN Guiding Principles on Internal Displacement (UNGP),²⁶ which in some cases have been incorporated into binding legal instruments,²⁷ or have been proven useful for states in different ways.²⁸ The UNGP require the protection of a comprehensive list of rights, including protection from discrimination, arbitrary displacement, rights to life, dignity, liberty and more.

Although the legal framework discussed above is certainly comprehensive, certain challenges still exist. To begin with, the fact that international human rights law instructs states to follow certain standards does not mean that in practice they do.²⁹ A line of reports and studies indicate that the presence of human rights laws does not necessarily mean respect for human rights also in practice,³⁰ and that

²⁴ See, for example, the New York Declaration, para. 5 (see note 9).

²⁵ See preamble to the Paris Agreement (2015).

²⁶ Guiding Principles on Internal Displacement, 22 July 1998, ADM 1.1,PRL 12.1, PR00/98/109.

²⁷ For example, the African Union Kampala Convention states that the Parties are «[r]ecognising the inherent rights of internally displaced persons as provided for [...] in the United Nations Guiding Principles on Internal Displacement [...]». See the preamble to African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa («Kampala Convention»), 23 October 2009. See also a review of studies on the implementation of the Guiding Principles in national legislations in Kälin et al. (see note 29 below).

²⁸ Simon Russell explains that the UNGP has been used «as inspiration for the development of national laws or policies [...] durable solutions frameworks [...] have been most successful in forging international agreement on and conformity to the meaning of who is an «IDP»»; Russell, S. (2018), «The Operational Relevance of the Guiding Principles on Internal Displacement», *International Journal of Refugee Law*, 30(2), 307–08.

²⁹ Kälin and Williams note in the context of the protection of IDPs: «[A] recurring theme is the gap between law and practice. The legislation of many of the countries surveyed in this volume contains important provisions for IDPs – in some cases specifying them as a separate category and in others focusing on the universality of human rights for all citizens – but in practice these rights are rarely fully realized, especially for IDPs»; Kälin, W., and Williams, R. (2010), «Introduction», in Kälin, W. et al. (eds.), *Incorporating the Guiding Principles on Internal Displacement into Domestic Law: Issues and Challenges*, p. 6 (Washington, DC: American Society of International Law and Brookings), available at: www.refworld.org/pdfid/4b6c164e2.pdf.

³⁰ De Schutter (2019), *International Human Rights Law*, p. 810 (see note 21).

compliance with international human rights law leaves much to be desired.³¹ Indeed, of the three petitions to international human rights courts mentioned above, one was dismissed without even a full hearing (Inuits), another failed based on contentious grounds (Teitiota)³² while the third (Chiara Sacchi et al.) is still pending. Also, the implementation of the UNGP specifically has been far from easy and remains a challenge in many areas of the world.³³

Moreover, it is important to note that certain human rights require the investment of resources, especially where population displacement is permanent and the state is under obligations to provide benefits such as adequate housing and access to services. Where resources are less available, the delivery of rights becomes more challenging. We elaborate more on this point below in our discussion on adaptation rules.

Protecting cross-border migration

The case of cross-border migration presents further difficulties. Although it is clear that many human rights protections still apply, this body of law does not grant individuals the right to cross a border, nor to legally remain within host countries' territories. The right to enter another state (and to remain there legally) is secured under international law through a line of regional (e.g. the EU treaties) and bilateral (e.g. US-Marshall Islands Compact of Free Association³⁴) agreements that grant rights of entry/migration to nationals of the relevant member states. These agreements are naturally limited in coverage and are relevant only for the «lucky few» who are living in relevant states.

International refugee law and its limitations

Another, more limited right to cross a border is available through international refugee law. Refugee treaties (notably the 1951 UN Refugee Convention and the 1967

31 See, for example, Human Rights Watch's annual *World Report*, or Amnesty International's annual *The State of the World's Human Rights* reports.

32 Elsewhere, we give a detailed critique of this judgment: Behrman, S., and Kent, A. (forthcoming), «Prospects for Protection in Light of the Human Rights Committee's Decision in Teitiota v New Zealand», *Polish Migration Review*.

33 Kälén describes the impact of the UNGP as a glass «half full and, at the same time, half empty». Kälén, W. (2018), «Consolidating the Normative Framework for IDPs», *International Journal of Refugee Law* 30(2), 314. See more critical comments on the state of implementation of the UNGP in Orchard, P. (2018), «Implementing the Guiding Principles at the Domestic Level», *Forced Migration Review*, 59, 11. This author (critically) mentions 30 laws and policies that explicitly mention the UNGP. For a useful overview of IDP law more generally and its gaps in relation to climate change displacement, see Koser, K. (2011), «Climate Change and Internal Displacement: Challenges to the Normative Framework», in Piguet, E. et al. (eds.), *Migration and Climate Change* (Cambridge: Cambridge University Press and UNESCO).

34 Available at: <https://2009-2017.state.gov/documents/organization/173999.pdf>.

Protocol Relating to the Status of Refugees³⁵) provide those who are recognised as «refugees» with the right to enter other states and legally reside there. Importantly, the right to be considered a «refugee» is not applicable to all those seeking refuge. The Refugee Convention defines as a «refugee» only those who cannot return to their home countries due to a well-founded fear of persecution «for reasons of race, religion, nationality, membership of a particular social group or political opinion».³⁶ There is little doubt that, according to these criteria, climate refugees are not «refugees»: The effects of climate change are not persecutory in the generally accepted meaning of the word.³⁷ The Refugee Convention's definition was designed in the immediate post-Second World War period, and it understandably conceptualised refugees in light of the horrors and circumstances of that time. Unfortunately, although this definition was amended in certain, very limited respects under the 1967 Protocol and has been expanded jurisprudentially, it is a very long way from being able to accommodate more modern phenomena such as climate change.³⁸ The Refugee Convention still has an important part to play in providing protection to people fleeing direct persecution for their political or religious beliefs, or other personal characteristics – sadly these cases are still numerous. For that reason, we do not believe that the Convention should be reopened for amendment, much less dispensed with; rather, a category of «climate refugee» should be created elsewhere, either through a new treaty, or more likely by establishing some kind of protection mechanism via an existing human rights or environmental law framework.

Non-refoulement as an imperfect solution

Another relevant legal route for those having to cross a border is the principle of non-refoulement, which has its roots in international refugee law but has since been significantly expanded as a universal principle via multiple human rights

³⁵ United Nations (1951, July 28), Convention Relating to the Status of Refugees, treaty series, vol. 189, p. 137; United Nations (1967, January 31), Protocol Relating to the Status of Refugees, treaty series, vol. 606, p. 267.

³⁶ Refugee Convention, *ibid.*, Art 1(A)2.

³⁷ It should be noted, however, that the New Zealand Supreme Court – in an earlier iteration of the Human Rights Committee case mentioned above – left open the possibility that climate change could be a contributory factor that opens the door to refugee status under the Refugee Convention, although they did not go into any detail as to how this might occur. *Ioane Teitiota v the Chief Executive of the Ministry of Business, Innovation and Employment* [2015] NZSC 107, at para. 13.

³⁸ The 1967 Protocol simply removed the strict temporal and geographic limitations of the 1951 Convention by making it applicable to refugee-producing events outside of Europe after 1951. Case law around the world has been used to extend protections to certain types of persecution, such as those based on gender or sexuality. However, the focus on persecution appears to be a boundary, beyond which the Convention cannot be stretched. It should be noted, though, that regional agreements such as the 1969 Organisation for African Unity Refugee Convention and the 1984 Cartagena Declaration do extend the refugee convention beyond «persecution» and have greater potential for including people fleeing the effects of climate change.

treaties and cases.³⁹ In a nutshell, the principle of non-refoulement forbids sending people back to any place – including their home countries – where they face the threat of serious harm. Whereas the Refugee Convention forbids only the return of those qualifying as «refugees» (and thus less relevant for this chapter), under human rights law this principle is much broader and applies to anyone threatened by death, torture or other forms of inhumane treatment.⁴⁰ The UN Human Rights Committee has explained in the context of the Right to Life (Art. 6 ICCPR (Right to Life)) that:⁴¹

«The duty to respect and ensure the right to life requires States parties to refrain from deporting, extraditing or otherwise transferring individuals to countries in which there are substantial grounds for believing that a real risk exists that their right to life under article 6 of the Covenant would be violated. Such a risk must be personal in nature and cannot derive merely from the general conditions in the receiving State, except in the most extreme cases.»

Many authors have made the link between the principle of non-refoulement and the obligation to refrain from the deportation of climate refugees.⁴² These authors argue that the risks in returning to areas that can no longer sustain life (due to the impacts of climate change) justify the prohibition on the deportation of climate refugees: «The threat in this case comes from the environment, not from the home state's policies, but the effect on the victim is the same.»⁴³ The UN Human Rights Committee has recently confirmed this line of argument. The Committee elaborated that the right to life must not be understood in a restrictive manner, and that it «extends to reasonably foreseeable threats and life-threatening situations

39 See, for example, Kolmannskog, V. (2008), «Climates of Displacement», *Nordisk Tidsskrift for Menneskerettigheter* 26, 302, 312.

40 UNHCR, «Advisory Opinion on the Extraterritorial Application of Non-Refoulement Obligations under the 1951 Convention relating to the Status of Refugees and its 1967 Protocol», available at: www.unhcr.org/4d9486929.pdf, see paragraphs following note 34 with respect to specific HR treaties, and text below the section above «International refugee law and its limitations» with respect to HR law, which is based on customary international law.

41 Human Rights Committee, «General Comment No. 36 (2018) on Article 6 of the International Covenant on Civil and Political Rights, on the Right to Life» (30 October), CCPR/C/GC/36, para. 30.

42 See, for example, Kolmannskog (see note 39); Docherty, B., and Giannini, T. (2009), «Confronting a Rising Tide: A Proposal for a Convention on Climate Change Refugees», *Harv Envtl L Rev* 33, 349, 377; Scott, M. (2014), «Natural Disasters, Climate Change and Non-refoulement: What Scope for Resisting Expulsion under Articles 3 and 8 of the European Convention on Human Rights?», *International Journal of Refugee Law* 26(3), 404; Poon, J. (2018), «Drawing upon International Refugee Law: The Precautionary Approach to Protecting Climate Change-displaced Persons», in Behrman, S., and Kent, A. (eds.), «*Climate Refugees*»: *Beyond the Legal Impasse?* (Abingdon-on-Thames: Routledge).

43 Docherty and Giannini, *ibid.*, 377.

that can result in loss of life»,⁴⁴ including threats that result from climate-related environmental degradation.⁴⁵

It should be noted, however, that certain limitations nevertheless exist. To begin with, as stated in the Committee's quotation above, the threat must be «be personal in nature and cannot derive merely from the general conditions in the receiving State». The case of climate refugees is hardly ever «personal in nature», and, by definition, it will almost always derive «from the general conditions in the receiving State». Furthermore, as pointed out by others, the risk to the person returning to his/her state must be immediate.⁴⁶ This requirement is reasonable in the context of «ordinary» asylum cases, such as where the person is facing threats related to loss of freedom, violence, etc. The slow-onset nature of many of the risks associated with climate change, however, will fail most attempts to rely on rules such as non-refoulement (or Art. 6 ICCPR), as the threats from events such as rising sea levels are not (yet) immediate.

These two sets of difficulties (the «immediate» and «personal» nature of the threat) have featured heavily in the Teitiota case discussed above. The Human Rights Committee ruled in 2019 that the claimant did not demonstrate that the risk was «personal» in any way, or different from other residents of Kiribati.⁴⁷ The Committee further decided that the slow effect of climate change (notably the fact that life, even if harder, is still sustainable on these islands) implies that the threat is not imminent, but will materialise only in the not-so-near future (if ever at all).⁴⁸ This decision is certainly important, as climate-related events were, at last, recognised as a justifying cause for prohibiting the deportation of persons back to areas that have been dramatically affected by climate change. Yet, it demonstrates the limits of the principle of non-refoulement and the difficulty that will stand in the way of climate refugees, should they attempt to rely on this principle in the future.

The potential statelessness of climate refugees

Another legal matter that concerns cross-border migration is related to the potential statelessness of climate refugees. This possibility can exist only where all available adaptation efforts fail;⁴⁹ entire island nations, such as low-lying Kiribati, Tuvalu, the Maldives and the Marshall Islands, will sink under the ocean and effectively disappear. Where the state no longer exists, its (now exiled) citizens may, arguably, be regarded as «stateless». The 1954 Convention relating to the Status of Stateless

44 UN Human Rights Committee, para. 9.4 (see note 19).

45 Ibid., 9.5.

46 McAdam, J., and Limon, M. (2015), *Human Rights, Climate Change and Cross-Border Displacement: The Role of the International Human Rights Community in Contributing to Effective and Just Solutions* (Geneva: Universal Rights Group), p. 16.

47 UN Human Rights Committee, para. 9.7 (see note 19).

48 Ibid., paras. 9.10–9.12.

49 Some argue that at least in some cases, engineering solutions will prevent the complete sinking of nation islands; see, for example, Esteban, M. et al. (2019), «Adaptation to Sea Level Rise on Low Coral Islands: Lessons from Recent Events», *Ocean & Coastal Management* 168, 35.

Persons defines «stateless person» as one «who is not considered as a national by any State under the operation of its law».⁵⁰ The novelty of this situation – the lack of a precedence, where a state simply physically disappeared – raises certain questions that are, for the time being, open.⁵¹

To begin with, the definition of «any State» is important, especially as it is not clear whether once submerged under water, a state can still be legally regarded as a «state». According to international law,⁵² a «state» requires elements such as a defined territory, a permanent population, a government and a capacity to enter into relations with other states. Should a state submerge in its entirety under water, each of these elements will be questioned.

For example, can sinking states simply build artificial islands in order to maintain their claim to a territory? Can perhaps the online, virtual presence of a state be considered a sufficient form of territorial existence? And what kind of a «government» can a state have where its «citizens» are scattered around the world, effectively (and permanently) living under the rule of *other governments*? It is doubtful whether climate refugees themselves would prefer such an arrangement, in which they are subjected simultaneously to two governments (and two sets of rules). Moreover, certain basic cultural and social rights centred around the right of self-determination will be heavily compromised by living on the territory of other states.⁵³

And what kind of relations may other governments have with submerged island nations? Cooperation on issues ranging from trade to extraditions, investment, environmental protection and many others will all become irrelevant. Potential exceptions could be issues such as the exploitation of marine resources,⁵⁴ but there is no doubt that the range of issues requiring international relations will be limited. It is true that certain unique examples of «non-existing states» with (limited) international relations exist: The Sovereign Order of Malta is often mentioned in this respect, having entered into diplomatic relations with more than 100 states and securing a permanent observer status at the United Nations. This example, however, is both unique and misleading. The Order of Malta is effectively acting today as a religious humanitarian organisation, not as a functioning state with

50 United Nations (1954, September 28), Convention Relating to the Status of Stateless Persons, treaty series, vol. 360, p. 117.

51 The International Law Commission is currently examining certain issues concerning the rise of sea levels, including the question of statehood. United Nations (2019), *Report of the International Law Commission*, UN Doc A/73/10, p. 329, available at: <https://undocs.org/en/A/74/10>. In addition, for a particularly interesting analysis of the novel issues thrown up by disappearing states, see Burkett, M. (2011), «The Nation Ex-Situ: On Climate Change, Deterritorialized Nationhood and the Post-climate Era», *Climate Law* 2(3), 345.

52 The accepted definition of a «state» is found in Article 1 of the 1933 Montevideo Convention on the Rights and Duties of States.

53 See, for example, Wewerinke-Singh, M. (2018), «Climate Migrants» Right to Enjoy Their Culture', in Behrman, S., and Kent, A. (eds.), «*Climate Refugees*»: Beyond the Legal Impasse? (Abingdon-on-Thames: Routledge).

54 Sharon, O. (2019), «Tides of Climate Change: Protecting the Natural Wealth Rights of Disappearing States», *Harvard International Law Journal* 60(1), 95.

aspirations to rule its subjects and protect their interests. The inescapable reality is that the «sinking states» scenario is entirely novel, and international law does not currently possess any easy answers.

In short, there is a strong possibility that, unless certain political arrangements can be made (see below), the citizens of submerged island nations will become «stateless», because their states will cease to exist as «states» in any meaningful sense.

Certain international rules provide protection for stateless persons, notably the 1954 Convention and the 1961 Convention on the Reduction of Statelessness.⁵⁵ These conventions secure certain rights for stateless persons, inter alia their rights to religion, access to courts, travel documents, treatment similar to that granted to other foreign nationals on a variety of matters (e.g. right to work, housing, education, movement) and more. There are nevertheless significant limitations to these conventions. To begin with, membership in these conventions is far from universal. The 1961 Convention has 75 parties, and the 1954 Convention has 94 parties, that is, even after many decades, fewer than half of all states have signed up to them. Secondly, the 1954 Convention does not require states to grant a nationality for stateless persons, and the 1961 Convention only requires this in very specific circumstances involving children born on the territory of the state or where one of their parents already has citizenship in that state.

Certain solutions for preventing the statelessness of those residing on sinking island nations have been proposed. Interesting possibilities include a territory transfer with another state (including the full secession of sovereignty over said territory), different forms of unification with other states or, simplest of all, the mere acquisition of the nationality of a third state.⁵⁶ These solutions, however, are all dependent on the political will of relevant countries, and it remains to be seen whether they will be implemented when (and if) the time comes.

Supplementary soft-law guidelines

The protection rules discussed above are the most significant parts in the legal jigsaw currently available for climate refugees. These rules are supplemented by a long list of mostly soft-law-based recommendations, guidelines and other non-binding documents that are aimed at the protection of climate refugees. These soft-law documents often protect only specific aspects that are related to the process of migration. For example, the Migrants in Countries in Crisis principles and guidelines from 2016 are designed to protect those ending up in unsafe environments, whether it be a conflict or a natural disaster. Another example is the International Law Commission's Draft Articles on the Protection of Persons in the Event

⁵⁵ United Nations (1961, August 30), Convention on the Reduction of Statelessness, treaty series, vol. 989, p. 175.

⁵⁶ These possibilities were identified by Park, S. (2011), *Climate Change and the Risk of Statelessness: The Situation of Low-lying Island States* (Geneva: UNHCR), p. 17, available at: www.unhcr.org/4df9cb0c9.pdf.

of Disasters from 2016, which provide useful instructions on international cooperation and assistance.

Perhaps the most important soft-law-based supplementary guideline is the Nansen Initiative's Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change (the Nansen Protection Agenda). The Nansen Protection Agenda is especially useful in the context of climate-induced, cross-border displacement. This document includes a compilation of best practices and guiding principles that states can learn from and apply in their own jurisdictions. For example, it proposes criteria that governments could use for defining who are «cross-border disaster-displaced persons»,⁵⁷ as well as best practices for those individuals' admission and stay in their host countries.⁵⁸ Other useful practices include the protection of human rights, non-return (an adapted version of the principle of non-refoulement, discussed above) and the long-term stay of refugees, where necessary.⁵⁹

Mitigation and adaptation

Mitigating climate-induced migration

The most important international framework for mitigation and adaptation efforts is the United Nations Framework Convention on Climate Change (UNFCCC) and its related decisions and agreements. This Convention is very likely climate refugees' only hope for mitigating the rise in emission levels and providing states with an opportunity to adapt to climate change.

The mitigation of climate change is in many ways the ideal solution – it will effectively remove the cause for migration (or at least reduce it where a mix of causes exist) and consequently also the need for protection. Entering a discussion on the UNFCCC and this framework's success in mitigating climate change is beyond the scope of this chapter. Nevertheless, it must be said that current rules on climate mitigation (notably the Paris Agreement's nationally determined contributions) are insufficient and not expected to succeed in reaching the emission reduction targets set by the international community.⁶⁰ As it is questionable whether the political will to adopt more ambitious climate mitigation rules will be found in the near future, perhaps one should not expect the «mitigation» of the problem (the reader is asked to excuse our pessimism in this respect). In addition, we may already be at, or very

57 The Nansen Initiative (2015), *Agenda for the Protection of Cross-border Displaced Persons in the Context of Disasters and Climate Change*, p. 22, available at: <https://nanseninitiative.org/wp-content/uploads/2015/02/PROTECTION-AGENDA-VOLUME-1.pdf>. It should be noted that on completion of the agenda, the Nansen Initiative transformed itself into a permanent organisation, known as the Platform for Disaster Displacement (PDD), carrying out research and producing policy proposals around these issues. In particular, the PDD played a leading role in the negotiations on the Global Compacts mentioned above, and it continues to work closely with UN agencies and others to push forward the policy agenda.

58 Nansen Agenda, *ibid.*, p. 26.

59 Nansen Agenda, *ibid.*, pp. 28–29.

60 UNEP (2019), *Emission Gap Report 2019* (Nairobi: UNEP).

near to, certain «tipping points», whereby some effects of climate change are no longer possible to control. More practically, rules on adaptation as well as «loss and damage» may prove more useful in the context of this analysis.

Adaptation, loss and damage, and finance

The most significant development to date in the context of loss and damage is the establishment of a UNFCCC-led, cross-institutional Task Force on Displacement. The Task Force submitted an initial report with several recommendations. These recommendations were endorsed in 2018 by the UNFCCC member states, and the Task Force's mandate was extended until 2021. Its report includes recommendations on important elements, including improved institutional coordination and coherence, and broader public participation. Importantly, the report calls on states to «[c]onsider the formulation of national and subnational legislation, policies, and strategies, as appropriate, that recognize the importance of integrated approaches to avert, minimize, and address displacement related to adverse impacts of climate change and issues around human mobility».⁶¹

Crucially, the Task Force is also addressing the matter of finance. As stated above, the effective protection of refugees' rights involves the significant allocation of resources. Effective adaptation to large-scale climate migration requires the provision of public services, humanitarian assistance as well as the protection of rights to shelter, education, health, etc. Some clue as to the financial scale of this effort can be learnt from Germany's own experience in hosting an influx of migrants in the years 2015–2016. The cost of processing and accommodating asylum seekers in Germany during this episode was estimated by the Organisation for Economic Co-operation and Development (OECD) at around €10,000 per application.⁶² Overall, Germany spent €16 billion on asylum seekers in 2015 alone,⁶³ a sum which many nations may not be able to afford. Given that most climate refugees are expected to seek refuge in the Global South, the allocation of significant resources is expected to be a significant challenge.

The Task Force indeed addressed this gap in finance in several ways. To begin with, it identified the existence of a «finance gap» as well as the fact that relevant UNFCCC-related funds do not explicitly address climate-induced migration. The Task Force points out that the lack of explicit reference could make the

⁶¹ UNFCCC (2018), *Report of the Task Force on Displacement* (New York, NY: UNFCCC), para. 33.

⁶² The estimated cost is for the first year of the application. OECD (2017), «Who Bears the Cost of Integrating Refugees?» Migration Policy Debates, available at: www.oecd.org/els/mig/migration-policy-debates-13.pdf (accessed 11 October 2011). It should, however, be noted that in the medium to longer term, there is much evidence that migrants/refugees produce a net economic benefit. See, for example, a succession of reports produced by Jonathan Wadsworth on the UK context for the London School of Economics' Centre for Economic Performance. Already there is evidence that the mass arrival of refugees in Germany in 2015 is creating economic dividends. See, for example, Dowling, S. (2019, June 20), «Germany Welcomed Refugees. Now It's Reaping the Economic Benefits», *Al Jazeera*, available at: www.aljazeera.com/ajimpact/germany-welcomed-refugees-reaping-economic-benefits-190617194147334.html.

⁶³ OECD, *ibid.*, 2.

allocation of funds more complicated.⁶⁴ This gap can have severe implications for states' ability to adapt to future climate-induced migration, as well as for the level of protection that they are able to provide refugees.

The Task Force further recommended that the «Parties and relevant organizations» will provide information on financial support that they provide for averting, minimising and addressing, climate-induced migration,⁶⁵ and that the Executive Committee of the UNFCCC's Warsaw International Mechanism, «in collaboration with the Standing Committee on Finance and relevant organizations», will «facilitate mobilization of financial resources for developing country Parties to avert, minimize and address displacement related to the adverse effects of climate change».⁶⁶

These developments are certainly useful. Unfortunately, these are all still «recommendations», and no clear steps have so far been taken. Elsewhere, we have argued that the rather vague mandate of climate funds could in fact be useful: There is nothing there to *exclude* the finance of climate-induced migration adaptation projects.⁶⁷ We claimed that the resources necessary for hosting climate refugees could be defined as «adaptation efforts» and that – with the lack of any specific instructions on the matter – states should at least attempt this route. Admittedly, the UNFCCC funds are not sufficient for supporting, say, the right to shelter for the many millions that are predicted to migrate due to climate change. This limitation should be acknowledged and ideally addressed through increased donations by those states that are not currently hosting climate refugees. Realistically (and in light of the Covid-19 financial crisis), it could be that the more urgent adaptation measures (e.g. humanitarian assistance to climate refugees) should be identified by the member states in order to facilitate access to environmental funds (e.g. the Green Climate Fund (GCF), the Global Environment Facility (GEF)).

Other authors have proposed different solutions with respect to the gap in finance, notably the establishment of a newly designated international fund.⁶⁸ We are not convinced, however, that a new fund is indeed the answer. The biggest hurdle is – and always will be – the lack of financial resources, and expecting additional climate-related donations just because a new fund is created is unrealistic.

⁶⁴ UNFCCC, *Report of the Task Force*, para. 23 (see note 61).

⁶⁵ *Ibid.*, para. 27.

⁶⁶ *Ibid.*, para. 27. See more relevant recommendations in the *Report of the Task Force* in para. 34, p. 28 para. (h), p. 31 para. (c), and more.

⁶⁷ Kent and Behrman, pp. 108–17 (see note 2).

⁶⁸ Biermann, F., and Boas, I. (2010), «Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees», *Global Environmental Politics* 10, 60; CRIDEAU (2013), *Draft Convention on the International Status of Environmentally-Displaced Persons* (Third version), available at: <https://cidce.org/wp-content/uploads/2016/08/Draft-Convention-on-the-International-Status-on-environmentally-displaced-persons-third-version.pdf>; Docherty, B., and Giannini, T. (2009), «A Proposal for a Convention on Climate Change Refugees», *Harvard Environmental Law Review* 33, 349; Hodgkinson, D., Burton, T., Young, L., and Anderson, H. (2009), «Copenhagen, Climate Change <Refugees> and the Need for a Global Agreement», *Public Policy* 4, 155.

As stated above, existing funds (GCF, GEF) possess the required expertise; the question is, primarily, one of political will to increase the scale of donations.

Supplementary soft-law guidelines

Other relevant pieces of legislation that are useful for enabling adaptation to climate-induced migration include a variety of soft-law-based guidelines and regulations. The abovementioned Nansen Protection Agenda is one such example. The agenda provides useful practices and guidelines on «preparedness», including a recommendation to map communities (and areas) at risk, preparing future scenarios and plans for relocation, the establishment of education/training/accreditation programmes for the facilitation of future migration and improved integration in host communities.

Another key soft-law instrument in the context of adaptation is the Sendai Framework for Disaster Risk Reduction. Although the Sendai principles are mostly vague, some of its defined «priorities» are highly relevant for adaptation. The four priorities are: «understanding disaster risk», «strengthening disaster risk governance to manage disaster risk», «investing in disaster risk reduction for resilience» and «enhancing disaster preparedness for effective response and to «Build Back Better» in recovery, rehabilitation and reconstruction». These priorities are each accompanied with a long list of specific key activities that provide concrete instructions for states wishing to prepare for the event of climate-related disasters (including consequential migration) and adapt to it.

Access to remedies

The last element that international law will have to provide is access to remedies. This part addresses the ability of those affected by climate-induced migration (mostly individuals and communities) to request a remedy from wrongdoers that either contributed to the push factors in migration (e.g. by polluting) or failed to protect refugees once they had to migrate (e.g. by not providing them with a safe haven). Until recently, not many have attempted to demand a remedy from responsible states. Recent years, however, have brought a barrage of climate-related litigation in both national and international tribunals. Affected individuals and communities are now trying their luck in courts, demanding effective remedies from states. As reviewed below, certain obstacles are still standing in their way.

The double problem of causality

The most commonly requested remedy so far has been to reduce specific states' emission levels in order to slow the effects of climate change. In some cases, this request was fairly broad: For example, in the claim made under the UN Convention on the Rights of the Child mentioned above, the petitioners asked that the respondent states «ensure that mitigation and adaptation efforts are being accelerated to

the maximum extent of available resources».⁶⁹ In other cases (e.g. *Urgenda vs Netherlands*, *Torres Strait Islanders vs Australia*), far more specific reduction targets have been requested. In a few cases,⁷⁰ claimants have also asked for a monetary remedy, mostly in the shape of the allocation of funds for adaptation purposes.

The main obstacle standing in the way of these claimants' search for remedies is related to the double problem of causality.⁷¹ In essence, in order to get a remedy, claimants will have to demonstrate two almost impossible causal links: between a specific wrongdoer and the victim, and between climate change and the act of migration.

The first barrier cannot be easily overcome. It is impossible to isolate the action of one country alone in the context of climate change and to attribute to this country results such as rising sea levels, melting permafrost or extreme weather events. The damage is the result of a «common pool» of greenhouse gases in the atmosphere, and this cannot be directly linked to specific states' emissions. Certain creative solutions have been developed, including the establishment of a compensation fund that would be based on large emitters' contributions,⁷² or a «pro-rata» attribution of partial responsibility based on a given country's portion of greenhouse gases emitted into the atmosphere.⁷³ The Dutch Supreme Court has indeed accepted the latter possibility in its landmark *Urgenda* ruling of 2019, stating that «each country is responsible for its part and can therefore be called to account in this respect».⁷⁴ This decision indeed offers a bit of hope on an obstacle that was considered until recently to be impassable. However, unless such ideas are developed and accepted more widely, the establishment of a causal link will remain «well-nigh impossible, however sophisticated science has become».⁷⁵

The second causality-related barrier involves the link between climate change and one's decision to migrate. Climate change is often not the only reason for migration, but one of many cumulative drivers that have led one to leave home. The Foresight report famously stated that «migration is a multi-causal phenomenon and it is problematic to assign a proportion of the actual or predicted number of migrants as

69 *Communication to the Committee on the Rights of the Child, in the Case of Chiara Sacchi et al.*, para. 329 (see note 13).

70 For example, the Inuit Petition to the Inter American Commission on Human Rights (see note 12); the Communication submitted to the Human Rights Committee by communities from the Torres Strait islands (see note 19).

71 Viñuales, J. (2016), «A Human Rights Approach to Extraterritorial Environmental Protection? An Assessment», in Bhuta, N. (ed.), *The Frontiers of Human Rights* (Oxford and New York, NY: Oxford University Press), pp. 216–17.

72 *Ibid.*, 217.

73 Kolmannskog, V. (2008), *Future Floods of Refugees: A Comment on Climate Change, Conflict and Forced Migration* (Oslo: Norwegian Refugee Council), p. 31; Kent and Behrman, p. 93 (see note 2).

74 *Urgenda vs Netherlands* (Netherlands' Supreme Court, 20 December 2019), 5.7.5.

75 Atapattu, S. (2015), *Human Rights Approaches to Climate Change: Challenges and Opportunities* (Abingdon-on-Thames: Routledge).

moving as a direct result of environmental change».⁷⁶ This assumption however, is only partly accurate. For example, where migration is caused by rising sea levels, it is often easy enough to isolate climate change as a major cause for migration. The other «drivers» (e.g. economic difficulties) are caused by climate change and hardly independent from it. Indeed, in the recent Teitiota case discussed above, the UN Human Rights Committee accepted that rising sea levels «can propel cross-border movement of individuals seeking protection from climate change-related harm».⁷⁷ In other cases, it could be that a lower threshold should be accepted: For example, where it is likely that climate change has played a significant role (even if not a clinically isolated role) in the decision to migrate, or where research shows that environmental conditions are unreasonably difficult in a certain area. Insisting on a clear, strict, causal link would ignore the impact that climate change is having on migration – and even more so, it would ignore that some states are responsible for this reality. Also, existing refugee law does not insist that persecution must be the *only* reason for seeking asylum, just that it is a significant contributing factor. Indeed, it would be difficult to reduce any individual's decision to migrate to a single causal reason; issues of economics and family intersect with persecution, generalised violence, etc. It is somewhat unfair, therefore, to insist on a more clear-cut or unitary push factor for climate refugees, so long as the effects of climate change can be shown to be significant.

The limits of a non-refoulement remedy

Other requested remedies involve a declaration that those states deporting refugees back to their (environmentally degraded) home countries are breaching fundamental human rights, notably the right to life. Such a declaration will effectively prohibit refugees' deportation. The main limits standing in the way of those asking for such a remedy (notably, the damage must be personal and immediate in nature) are discussed above. Although the requirement – according to which the injury must be personal in nature – is difficult to fulfil in the context of climate change, a small window of opportunity nevertheless exists. The UN Human Rights Committee stated in this respect that more general conditions (rather than an individual's plight) will be accepted, albeit only in «the most extreme cases, and that there is a high threshold for providing substantial grounds to establish that a real risk of irreparable harm exists».⁷⁸ Although the Committee did not accept that the current situation in Kiribati is «extreme» enough to qualify for this exception, they were receptive to the possibility that in 10–15 years from now, it will be.

One may only wonder, however, about the wisdom in such an approach, which grants the right to life only where all is effectively lost. This approach effectively forces the residents of environmentally degraded areas to wait until the very last

⁷⁶ UK Government Office for Science (2011), *Migration and Global Environmental Change: Future Challenges and Opportunities*, Foresight report, p. 11, available at: www.gov.uk/government/publications/migration-and-global-environmental-change-future-challenges-and-opportunities.

⁷⁷ UN Human Rights Committee, para. 9.11 (see note 19).

⁷⁸ UN Human Rights Committee, para. 9.3 (see note 19).

moment and experience a slow, continuous degradation in the quality of their lives. These residents are forced to play the odds of their island's survival, leaving them at the mercy of the international community's will to act on climate change. These are odds that most would not choose in any other circumstances.

Will the courts play politics?

Finally, it is inevitable that at least some courts will refrain from granting a remedy in areas that fall within the realm of political decision-making. Issues such as emission reductions are subject to international negotiations and involve economic and social consequences. It is understandable that at least some courts will be reluctant to intervene in such a process without a clear mandate. In January 2020, the US Court of Appeals for the Ninth Circuit denied a request to order the phasing out of fossil fuel emissions in the United States, stating that «the plaintiffs' case must be made to the political branches or to the electorate at large, the latter of which can change the composition of the political branches through the ballot box».⁷⁹ The United Kingdom's High Court took a similar stand in 2018 when it refused to order the government to take preventive measures in the form of more ambitious emission reductions.⁸⁰ The High Court stated that «this is an area where the executive has a wide discretion to assess the advantages and disadvantages of any particular course of action, not only domestically but as part of an evolving international discussion».⁸¹ It is true that examples to the contrary exist (notably the Dutch Supreme Court, as expressed in its recent *Urgenda* ruling, discussed above). However, such examples are limited in number and, for the time being, also in their influence.

International tribunals may be even more reluctant to provide such remedies than national courts. International courts have traditionally walked a fine line between securing the rule of law and avoiding activism that might unsettle the international order. Moreover, in recent years, international courts have faced unprecedented challenges to their legitimacy,⁸² including head-on collisions with superpowers such as the United States, Russia and China. In short, it is likely that the current atmosphere will lead courts to become more timid, and consequently reluctant to grant remedies.

Future pathways?

We would like to conclude this chapter with a few observations about the future of the international regulations on climate-induced migration. This chapter demonstrated that, although a substantial body of law indeed exists, the gaps in the

⁷⁹ *Juliana et al. vs the United States of America Case*, 18-36082 (01/17/2020), 32.

⁸⁰ *Plan B Earth vs Secretary of State for Business, Energy and Industrial Strategy Case No: CO/16/2018* (20 July 2018). In 2019 the Court of Appeal refused the plaintiffs the right to appeal the High Court's decision, thus definitively shutting down this particular claim.

⁸¹ *Ibid.*, para. 49.

⁸² Kent, A., Skoutaris, N., and Trinidad, J. (eds.) (2019), *The Future of International Courts* (Abingdon-on-Thames: Routledge).

regulations of climate-induced migration are still significant. There is no doubt that some of these gaps are unlikely to be filled, at least not in a satisfactory manner or not in the immediate future. There is currently no easy solution for those wishing to cross a border in search of a new home; the protection of human rights law in many parts of the world is unsatisfactory, and the financial gap is unlikely to be easily addressed. A careful look, however, reveals some developments – baby steps mostly, but nevertheless steps in the right direction.

Importantly, global policymaking is moving forward. This is not a given: Until 2010⁸³ there was no international recognition of climate-induced migration under any international forum. Since 2015, however, we have seen substantive references in important documents such as the Paris Agreement, the New York Declaration for Refugees and Migrants, the Global Compact for Safe, Orderly and Regular Migration, the Global Compact on Refugees and elsewhere. We have also seen the international endorsement of the Nansen Protection Agenda, the establishment of the UNFCCC Task Force, and other developments as well.

Whether such developments will lead to meaningful results remains to be seen. Two interesting venues merit a closer look in this process. First, the work of the UNFCCC Task Force is located at the heart of the climate negotiations process; it may frame the discussion on climate-induced migration within this institution and influence the positions of the member states. Importantly, the Task Force has already indicated that it will not shy away from crucial topics, notably with respect to finance.

A second important venue that will merit attention is the UN International Law Commission, which was mandated in 2018 to examine issues of sea-level rise in relation to international law. It identified three issues for further investigation – two of which (the protection of vulnerable affected individuals and communities, and issues related to statehood) are highly relevant for climate refugees. Although the Commission's investigation will be limited to the effect of rising sea levels, there is no doubt that its conclusions will be relevant for climate refugees more broadly. At the time of writing, this investigation is at its early stages, and in-depth conclusions have yet to be made.

«Baby steps» are also visible in the context of remedies. The UN Human Rights Committee's acknowledgment that the impacts of climate change may jeopardise islanders' right to life is noteworthy. The decisions of national courts may also play an important role. The Dutch Supreme Court's *Urgenda* ruling is especially important: Although it does not address directly the issue of climate-induced migration, it does provide solutions for some of the abovementioned legal problems. Notably, it provides a partial answer to the problem of causality, and it demonstrates an activist approach towards the development of the law. Whether other tribunals (including international ones) will follow remains to be seen. As to whether this approach is democratically acceptable, this is a topic for a different essay.

83 The UNFCCC member states made their first ever reference to climate-induced migration in October 2010 during the decisions that followed COP 16 (Decision 1/CP.16, December 2010).



Flooding in Jakarta, Indonesia

NATALIE SAUER

«Care work, climate work»

A DIALOGUE WITH DIZZANNE BILLY (TRINIDAD AND TOBAGO),
OLADOSU ADENIKE (NIGERIA) AND JOYCE MELCAR TAN (PHILIPPINES)

From childhood, Dizzanne Billy, who is from Trinidad and Tobago, remembers the great gushing Caura River, which she and her family would gather around. The northern mountain ranges, at the foot of which she now lives, teemed with birds. «Now the river is just dry,» she says. Coastal erosion is among the biggest threats posed by global heating to the island. Since Trinidad and Tobago started to measure sea-level rise in the late 1990s, the ocean has surged from 1.6 mm per year to close to 3 mm per year in 2019.¹ These days, when Billy drives down to the coast, she can see waves tugging at the land and coconut trees. Fishermen are particularly stressed, she explains, because the sea is taking away their infrastructure.

Oladosu Adenike, the ambassador of Fridays for Future in Nigeria, joins the conversation from a crackling line in Nigeria. She was brought up on a small settlement of farmland to the west of the capital, Abuja, now covered with buildings. Although the country has always had to contend with droughts, often resulting in famines, increasing temperatures and rain variability since the 1980s have aggravated an already precarious climate and fed into food insecurity and conflict.

Joyce Melcar Tan grew up on one of the 7,641 islands that make up the Philippines. Industrial developments, large-scale buildings and tourism have supplanted the pristine beaches and wooden houses of her childhood. When asked about the impacts of climate change on the Philippines, Tan lists coastal erosion and coral bleaching. More pronounced El Niños have also resulted in devastating droughts.

But it is the typhoons she worries about most. The country is one of the most prone to tropical storms in the world, with 6 to 9 tropical storms on average making landfall since 1970.² In the past 40 years, their power has intensified by 50 per cent due to warming seas.³ «Years of long-term infrastructure development and

- 1 Neaves, J. (2019, November 25), «TT Sea Level Rise Almost Doubles in Past 2 Decades», *Newsday*, available at: <https://newsday.co.tt/2019/11/25/tt-sea-level-rise-almost-doubles-in-past-2-decades/#:~:text=THE%20SEA%2Dlevel%20rise%20in,in%20the%20past%20two%20decades.&text=He%20explained%20that%20when%20TT,the%20consequences%20included%20coastal%20erosion> (accessed 31 July 2020).
- 2 Blanc, E., and Strobl, E. (2016), «Assessing the Impact of Typhoons on Rice Production in the Philippines», *Journal of Applied Meteorology and Climatology* 55 (4), 993–1007.
- 3 Mei, W., and Xie, S. (2016), «Intensification of Landfalling Typhoons over the Northwest Pacific since the Late 1970s», *Nature Geoscience* 9, 753–57.

economic planning are wiped out within minutes,» Tan says, «leaving people losing not only loved ones, but jobs, access to health services and the social fabric of their communities.»

Tan currently works as an energy and climate lawyer for the environmental law charity Client Earth, while Adenike leads Earth Uprising and the African Youth Climate Hub. Billy reported on the Paris Agreement as a journalist and is now a communications officer at the climate journalism advocacy group Climate Tracker.

What follows is the transcript of a conversation between them about how the climate crisis may shape the migratory trajectories of Nigerians, Trinidadians and Filipinos. Adenike, Billy and Tan examine the shortfalls of current policies and propose new ones to make life easier both for migrants and those who are left behind. The impact of global heating on women is also considered. All interviewees speak in a personal capacity.

N.S.: *How has the climate crisis affected mobility?*

D.B.: Climate migration is relatively new to the Caribbean region, but it is going to get worse as we are being hit with more frequent and more intense tropical storms and hurricanes. We saw this in September 2017 with the first Category 5 hurricane that we experienced, Hurricane Irma, and then two weeks later, another Category 5 hurricane, Hurricane Maria. Those two hurricanes, which were followed by weaker tropical storms, bashed islands like Antigua and Barbuda, Dominica and Puerto Rico. Even Haiti was affected.

We found ourselves in a situation where the Caribbean Community Secretariat (CARICOM), which is the overall body representing Caribbean member states, had to come together to figure out how we would deal with displaced people. Along with Barbados, Jamaica and the Bahamas, Trinidad and Tobago was one of the countries that really stood up to find a place for them.

The government particularly focused on supporting Dominicans, both in terms of immediate relief and medium-term relocation. We sent out our defence force to aid the relief efforts in Dominica. And our coastal guard deployed three vessels carrying food, water, generators and a 21-member disaster relief team to assist the islanders.

In terms of migration, the Caribbean also provided disaster-displaced persons a right of entry into the country. After Hurricane Maria, Trinidad and Tobago used CARICOM's free-movement agreement – a 6-month visa-free state provision used to shelter displaced Dominicans. The prime minister quickly put into place policies to enable Dominicans to come to Trinidad and to allow their children to go to school and integrate in society. Many other Caribbean countries followed suit afterwards. It forced CARICOM to confront something that is going to just get worse and to confront the question of the movement of people.

Right now, CARICOM, which is similar to the [European Union] for the Caribbean, is supposed to have free movement of people – but it's not as smooth as it should be. Dozens of Jamaicans, for example, have been denied entry or deported

over the past years for reasons that are often unclear.⁴ These cases have been brought to the Caribbean Court of Justice and some are still being dealt with (are currently under way – this is based on Dizzanne's words and I did not manage to find evidence for this).⁵

In an ideal situation, it would be easy for people from Antigua or Guadeloupe to move to another Caribbean country if they are hit, but the current system is not in place for that [kind of] transition of people.

O.A.: In Nigeria climate migration takes different forms. First you have people who have to leave their land within the country – internally displaced persons (IDPs). If this fails to bring relief, they may leave the country, temporarily or permanently, to seek refuge. This is happening in the Lake Chad area in the north-eastern part of Nigeria. The Boko Haram insurgency and also drought and deforestation have displaced over 3.4 million people, including 2.4 million people within the country.⁶ People's livelihoods are lost in the process. [...] Overall, the number of IDPs is alarming.

J.M.T.: Migration in the Philippines is a very complex issue because historically we've had a lot of people moving, whether it be from rural to urban areas, or externally to other countries. The Philippines typically exports a lot of highly skilled health care workers, including to countries in East Asia, like Hong Kong and Japan, to the Middle East, and even to Europe and the United States.⁷ So it's hard to pin down a particular climate change impact as the cause of migration and mobility, because oftentimes the decision to move is a result of various factors. That said, events like droughts, coastal erosion and other phenomena do make it difficult for people to remain where they are and still be able to earn a living wage and support their family with enough access to health services, food and water.

When extreme weather events such as huge tropical cyclones strike, there is sudden forced migration. In such cases, as long as you can determine the link between the extreme weather event and climate change, then you can also say that that prompted the migration. Most of these would be internal displacement: movement from the coastal area to the more inland areas, or to the urban centres, where there would be easier access to food, water and electricity.

4 CEEN TV (2014), «Jamaicans Denied Entry into Trinidad & Tobago», online video, available at: https://youtu.be/iA_IovNmy7E (accessed 31 July 2020) ; CEEN TV (2016), «12 Jamaicans Deported Renew Calls for a Re-examination of the CSME», online video, available at: <https://youtu.be/i4kUzpCxyLU> (accessed 31 July 2020).

5 For a legal perspective on the Freedom of Movement Agreements of CARICOM, see Francis, A. (2019), *Free Movement Agreements & Climate-Induced Migration: A Caribbean Case Study*, Columbia Public Law Research Paper, available at: <https://ssrn.com/abstract=3464594> (accessed 31 July 2020).

6 UNHCR (n.d.), *Nigeria Emergency*, available at: www.unhcr.org/uk/nigeria-emergency.html (accessed 31 July 2020).

7 See Tan, E. (2006), «Labor Migration and the Philippine Labor Market», *Journal of Immigrant & Refugee Studies* 4(1), 25–45.

The other factor of where people would move to would also be the family that they have in other places. So if there's family that may be in another island or another region that the displaced community can move to, then that's where they would normally do so.

There is a divide, I would say, between the more affluent members of the community and those that are more vulnerable, because the more vulnerable have fewer options about where they can move to. The less affluent would typically go to cities and be part of the informal economies there, which means that there's greater pressure on basic public services, but also a huge competition for low-skilled work.

In terms of external migration, where climate would be one of the factors, there is also a difference between the less privileged and the more privileged, [with] the more privileged usually using their [wealth] to send their kids to school, often for medical or nursing degrees, so that they can then go abroad and then earn a better wage that they can send back home.

N.S.: *What support is available to those making that leap? What kind of challenges do they face?*

J.M.T.: There are numerous challenges. And I think one of the reasons for that is because there is a huge difference between the support that is available versus the support that is required by the people that are moving[...] For ease, we can just call them migrants at the moment, even if their movements might be outside of their will and volition.

In terms of the internal movement within the Philippines from rural to urban areas, one of the big challenges would be that the skill set of the migrants may not match with the available work that is in the urban area. So, for example, traditional agricultural families that may have been used to more manual labour, may have to work in a commercial centre or in a call centre – an industry that is very big in the Philippines.

The second one is access to safe housing, because as more and more people migrate to urban areas – and in the Philippines, there is large rate of urbanisation – the rent and housing costs rise and the corresponding space for each family unit becomes smaller.

O.A.: Migrants have to start all over again. They have to look for connections, see how to rebuild their livelihoods and regain stability. Some may come out stronger, but many don't.

D.B.: One of the key issues is being accepted by the society one is moving into. To take the case of Venezuelan migrants in Trinidad and Tobago, for example, there's a lot of tension between both communities because of the perceived strain on the economy, job access and access to resources at large.

People may be moving from a situation where they had a comfortable lifestyle. But as climate migrants they've lost everything and moved into this new country.

They have to start again, often depending on state access to funds and social goods to survive. It really changes people's quality of life in a dramatic way.

I think it would be good if we could create policies to smoothen the integration process, including financial buffers for people moving into the country, so that they can stabilise themselves and not have to worry about whether their children can go to school or whether they can get access to civilian resources.

N.S.: *What happens to those who have been left behind? And again, what kind of policies should be carried out to facilitate that situation?*

J.M.T.: So in the Philippines, it has really depended on what kind of events have forced those who left to leave. So, for example, if it's a sudden-onset event like the tropical cyclone that hit the eastern seaboard of the Philippines, then those who were left behind because they had no option of leaving really needed access to electricity, basic health services and important psychosocial support because of all the death and devastation that they have seen at unprecedented levels. And then also, of course, access to clean water and food.

In the longer term, I would say that the policies that are needed to help those who are left behind are those which would allow the local communities to increase their resilience, because we know that a disaster is not necessarily a foregone conclusion whenever there's an extreme event, right? It's a result of a lot of exposure, of vulnerability and no coping capacity.

In the case of slow-onset events like prolonged droughts, I think policies would need to focus on systemic and long-term changes. So policies like providing livelihood opportunities and skills training for those younger members of the family of farmers or fishermen who would like to find other ways to be able to support their families without needing to leave to go to the cities. Education is equally important.

Another solution that can be controversial is sustainable tourism, because tourism does bring a lot of development and also carbon emissions. At the same time, it is a way for the people who have remained in local communities to be able to build back and find a way to support themselves without having to leave. I think that Kate Raworth's «doughnut economics», whereby economic development is modelled on planetary boundaries and social foundations, is very important.

N.S.: *In January, the UN Human Rights Committee ruled that refugees fleeing the effects of climate crisis could not be forced to return home by their adoptive countries. This judgement was made on the case of Ioane Teitiota, who applied for protection from New Zealand after claiming his life was at risk in his home country of Kiribati – the first country at risk of disappearing under rising sea levels. The ruling was in effect a landmark one, because it meant the UN recognised climate refugees after decades of academic debates on whether it's ever possible to single out climate and environmental factors as the cause of migration. What did you make of this ruling? And do you think there are people in your countries who could consider applying for climate refuge?*

J.M.T.: I think that that indeed was a very important decision because, as you said, it was a recognition by a UN body that there is this category of persons that stand to lose their homeland because of the impacts of climate change. [Another] key feature of that event was that the Committee said that there are 10 to 15 years in which the Republic of Kiribati – with the help of the international community – could still come up with ways to adapt to climate change, and so therefore, his life was not in imminent threat.

And I think that one opens up a whole range of very important conversations, one of which is that, even if we stop all of the emitting activities at the moment, there is still a level of commitment to global warming that has already happened that we are stuck with. This underpins the global community's [urgent need to act] to [spare] people from small island nations from having to leave their homelands, and thereby their cultures, their families and their traditions.

Secondly, the decision also shows us how the obligation of the global community to act on climate change has never been more urgent – so when we talk about the adaptive capacity of the small island states, it's not just up to them to respond to it, but there needs to be strong support internationally.

My third takeaway is that this decision has sparked a conversation on how most emissions that have been made so far have been coming from completely different regions in the world, such as Europe and North America – the Global North. However, the earliest and most severe impacts of climate change, such as people having to leave their countries, are already being felt in the Global South in countries like the Philippines. Will this encourage people from the Philippines to file a climate migration lawsuit? I'm not sure, but I [do] think that it provides interesting opportunities to do that.

Having said that, the Philippines Human Rights Commission is currently conducting an inquiry about climate mitigation. It's encouraging to see that our own local Human Rights Commission has started investigating carbon meters and looking into the question of whether or not they should be reporting what they are doing to mitigate their emissions.

D.B.: I think it's definitely a step in the right direction. It's not something that I can say has been reflected in this region or locally. I see that climate litigation is happening more often, whether it be young people suing their governments or organisations suing those responsible for what's happening. I think that it will eventually reach us, but for now it hasn't yet happened.

N.S.: *Do you find it helpful to talk about the specific ways that climate change affects women? For instance, do women's experiences of climate change differ from those of men? And if so, in what way?*

J.M.T.: Yes, definitely. There are different impacts that women have to deal with, and a lot of it has to do with the traditional family structure in the Philippines – and in many other countries – whereby mothers are usually responsible for cooking. This

means having to access water to be able to cook with, but also water for domestic use in general. Because of lower levels of access to water or the increasing salinity of water from saltwater intrusion, women would then have to spend more hours of their day doing that.

And that also affects the younger members of the household, because if there are opportunities for education, for example, these are traditionally given first to the male members because the female members are seen as being able to be more productive when helping with the housework.

In terms of the aftermath, for example, of a tropical cyclone, there is care work that would often devolve to the female members of the family. And so there is a disproportionate burden on females that is brought on by climate impacts.

D.B.: There's definitely that gender imbalance – particularly with regards to access to resources.

According to the [Food and Agricultural Organization], 43 per cent of the global agricultural labour force is made up of women.⁸ So, as hurricanes become more intense and droughts more frequent, we need to ask ourselves where this leaves women who depend on the land for their food security. Providing these women with the same resources as men can positively influence climate adaptation and sustainable development efforts.

As Joyce pointed out, it ties back to the traditional roles that women still hold in many Caribbean countries. Women in the region often live in single-parent households, so when the land is impacted, this directly affects their ability to provide for their families. Also, this kind of imbalance in power dynamics between men and women determines who has rights to what and who has access to resources to recover from the impacts of climate change.

Let's say a hurricane passes: It's much more likely that a man is able to bounce back than a woman who has kids and is on her own. And that, sadly, is a situation that affects many households in the Caribbean.

O.A.: Women are often at the receiving end of [climate-related insecurity]. On April 2014, 276 schoolgirls were kidnapped from their dorms in Chibok, a city in northeastern Nigeria, by Boko Haram. Then in February 2018, they targeted the Dapchi school girls.

As droughts become more frequent, so does early marriage. Some young women are being forced into marriage against their own will in a bid to survive, depriving them of their education. It cripples their opportunities to contribute to the local community. It drains them.

Some of the people who give their daughters to early marriage depend on agriculture for subsistence. So when production is hit by flooding or drought, they will end up giving their daughters for marriage so that they can secure what is known

8 FAO (n.d.), *The Female Face of Farming*, available at: www.fao.org/gender/resources/infographics/the-female-face-of-farming/en (accessed 31 July 2020).

as a «bride price» – money or property that the groom offers to his wife-to-be as opposed to a dowry.

Insecurity generated by climate change also makes sexual abuse of women more likely. We see Nigerian women engage in transactional sex for access to food. And, of course, the women kidnapped by terrorist also suffer sexual exploitation. It can be a point of no return for girls. In cases of drought, housewives have to walk longer distances to access cooking materials and water.

N.S.: *Could you cite examples of policies that could soften that blow on women?*

D.B.: No – and the reason I would say that is because it's something that has yet to take place. On the whole, gender in the Caribbean is only just starting to be taken seriously. Even outside of the climate change sector, gender mainstreaming in local policies is definitely lacking.

J.M.T.: One would be to allow the children of women to be cared for so that their mothers can either pursue educational or livelihood opportunities. Equipping local community officer clinics with breastfeeding stations could further help nursing mothers to contribute positively to the economy and bridge the gender gap.

Another set of policies could deal with the immediate aftermath of a disaster, for example, where people are living in shelters. Something that was very, very stark in the Philippines after Typhoon Haiyan was that the toilets in these temporary shelters are usually shared by everyone. But certain women, depending on their religious affiliations, might be uncomfortable using the same toilets as men. And so that's something that has been brought up as an issue and something to be worked on in humanitarian circles – that there be separate bathrooms for women and men for adaptation in the immediate aftermath of extreme weather events.

N.S.: *You both touched upon care. And it's interesting – Naomi Klein, along with many activists, is currently trying to make the point that care is climate work due to its low carbon footprint, but also due to its central role in helping populations adapt to the different environment that we're facing. Do you think that, in the wake of the pandemic, care work is valued more?*

D.B.: Yes, for sure. We are now seeing more appreciation for social work and front-line workers. In general, children don't grow up hearing their parents encourage them to become nurses or customer service representatives – but these jobs were definitely seen as essential during the pandemic. When disasters hit, these are also the jobs that will be essential to deal with the impact of a hurricane or other climate disasters.

J.M.T.: Yes, I think care work has been emphasised by the pandemic as a very crucial part of any society. But the pandemic has also highlighted a lot of systemic issues with regard to access to basic health care services. [Questions such as] who,

among the population, are part of the essential workers, and how exposed are they as a result of their situation?

[As far as the health services are concerned], it is true that they are less carbon-emitting and could contribute to a greener economy. But then the pandemic has also shown us that a lot of plastic pollution can be generated from all of the precautions that you have to take with the personal protective equipment that has to be disposed of every day. So we do need to find a way to manage that if we are to assure ourselves that we will recover from the pandemic in a green way.

Care work also needs a lot of energy infrastructure, especially when it's not in the context of care homes, but in hospitals. We need to really transform our energy infrastructure so that it's based more on renewable energy rather than fossil fuel-based energy.

N.S.: *What message would you like to convey, above all, to the policymakers who might be reading this, whether it be on the subject of a pandemic or climate migration?*

J.M.T.: So I would say that the urgency to act on climate change and really respond to it – as the crisis that it is – has only been highlighted by the pandemic. And governments across the world have this opportunity right now to ensure that any money that they use towards economic recovery does respect people and the planet and is not disproportionately geared towards just economic recovery.

In terms of climate migration and migrants, there should be a continued recognition of this category of persons who are rendered vulnerable because of climate impacts, which may be in geographically remote places where a lot of the big decision-makers are. But that only highlights the global level of this problem and also the requirement that we act as an international community and really cooperate to address it.

Finally, there has been this decades-long debate about whether or not climate refugees can be protected under the Refugee Convention. What I would like to see right now is recognition of a need for this category of persons without being tied to the traditional definitions of the 50-year-old Convention that we have. We need to protect this emerging class of persons, and one way to do so – without them having to leave their homelands – is for us to mitigate our emissions where we are, and especially those countries in the Global North.

Resisting rural dispossession and displacement: Peasant pathways to climate justice

The Intergovernmental Panel on Climate Change¹ has issued stark warnings about the impacts of climate change on global agriculture, as well as the impacts of global agriculture on climate change. This is reflective of a growing recognition that the organisation of food systems is a critical dimension of our response to the climate emergency. Conversely, there is little recognition of the importance of mobility – of people and food itself – within the food system. The ongoing Covid-19 pandemic has illustrated this importance in dramatic fashion through two sets of distressing scenes. The first involves Indian migrant labourers without access to food returning to their villages from cities. The second is the destruction of crops by those who work the land in the face of collapsing demand in cities. Both underscore the extreme inequalities and incongruities that underpin the mobility (and immobility) of food and people in our food system – injustices that severely undermine policy responses to the climate emergency already underway in the Global South.

This chapter argues that responses to climate change cannot be separated from the historical and contemporary struggles of rural social movements to reshape a global food system that systematically displaces millions of rural dwellers from the countryside in the name of growth-led economic development. Rural social movements in the Global South have challenged the ongoing dispossession of rural populations and accompanying destruction of nature under existing development models, questioning the necessity of «rural-urban transition», which underpinned national and transnational development policies for much of the 20th century. These movements identify existing dominant models of development to be the root cause of agrarian distress, rural displacement and ecological damage in the countryside. Outlining their critiques, this chapter explores the counter-visions of national and transnational rural social movements in order to map a peasant pathway to climate justice. In particular, I focus on how these movements have asserted the right to land, not just for the peasantries who till it, but also for those dispossessed by prior

1 IPCC (2007), Agriculture report in *Climate Change 2007: Mitigation of Climate Change*, available at: www.ipcc.ch/report/ar4/wg3/agriculture.

waves of development. That is to say, my focus is on their advocacy for the rights of rural and/or urban dwellers to remain and/or *become* peasants.

The first section of this chapter («Rural dispossession, displacement and mobility») looks at the historical relationship between agricultural development, rural dispossession and the production of precarious migrant labour. The second section («Voices from below: How rural social movements respond to rural dispossession») examines case studies of rural social movements from Brazil, South Africa and Indonesia to show how they have contested this long history of dispossession by asserting the right to land, as well as the right to rehabilitate nature through peasant agroecology. This allows us to see how the right to stay put – articulated as the right to become and/or remain a peasant – is mobilised in discourse and political practice to enact economic and ecological justice. In the third section («Transnational peasant visions: Advocating food sovereignty for agrarian and climate justice»), we shall see how the practices and visions of rural social movements are articulated in transnational spaces through the peasant movement La Via Campesina. In particular, we shall examine the concept of «food sovereignty» as a counter-vision for climate justice that addresses the dispossession of rural peoples and the destruction of nature together, with important implications for mobility justice. In the conclusion, I reflect on how listening to rural social movements can help us think about questions of climate justice and mobility through understanding the right to remain and/or become peasants.

Rural dispossession, displacement and mobility

For centuries, agricultural production has been connected to mobility through rural dispossession, with displaced rural populations providing labour to large farm holdings, as well as industrial and service sectors of the Global South and North. For instance, North America till the late 19th century continued to rely on slavery and indentured labour, which forcibly moved millions from Africa across the Atlantic Ocean, and now relies on underpaid, «illegal» migrant workers from Mexico to pick grapes and tomatoes in California fields. Since the late 19th century, Australia has been reliant on seasonal migrant labour from the Pacific Islands, such as Papua New Guinea.

These dynamics of dispossession and displacement have been informed by a belief that the transformation of peasant populations into industrial workers is inevitable. Both global and national policies have been designed to accelerate the dispossession of rural populations through the conversion of agricultural land into urban and industrial land, the mechanisation of farming and the accelerated conversion of rural populations into workers in a range of national and transnational industries.²

2 Araghi, F. (1995), «Global Depeasantization, 1945–1990», *The Sociological Quarterly*, 36(2) (Spring), 336–37.

In parallel to the development of commercial agriculture, the expansion of «extractivism» in what the climate justice movement calls «sacrifice zones» has exacerbated the difficulties faced by rural populations. Sacrifice zones are known as places that «don't count and therefore can be poisoned, drained, or otherwise destroyed».³ Rural populations that dwell within them are forced to choose between moving away or staying put as the natural world around them disappears through mining, chemical poisoning, soil depletion, urbanisation and/or the industrialisation of land from which they derive their sustenance. This concept has been used to describe the experiences of rural communities in a range of contexts, including the United States, the Niger Delta and Rajasthan in India. The last of these examples is particularly good for illustrating these dynamics. Over the course of the 20th century, rural Rajasthan found itself stripped of its natural resources, as forests were chopped down and commercial farming began to expand. The land lost its fertility due to over-farming through non-native practices, and, more recently, the Thar Desert began to engulf agricultural lands through human-induced climate change. It became impossible for rural populations to reproduce themselves via subsistence on their land or find gainful employment within their region, which forced them to find employment elsewhere. Hundreds of thousands of men from the region migrate for employment in the service and industrial sectors in the high-growth region of Gujarat, where the average cycle of back-breaking work before their bodies give up is around a decade. The same men then migrate back to their home village in Rajasthan, where survival and coping strategies are almost wholly reliant on the next generation of men completing the same torturous cycle.⁴ The lockdowns during the Covid-19 pandemic have provided a glimpse into the sheer scale of these populations, with tens of millions of migrant workers migrating back to their home villages on foot in India, as well as the mass forced returns to various South Asian states as work dried up in the Gulf.

The combined effect of commercial agriculture and extractivism has been to dramatically reduce the peasantry, a process referred to by social scientists as «depeasantisation».⁵ Its extent can be gleaned from the basic fact that, in 1950, only around 16 per cent of the population of the Global South was living in urban areas; by the turn of the 20th century, almost half of the world's population and 41 per cent of the population of the Global South lived in urban areas.⁶ Hundreds of millions who once had direct access to land and means of subsistence in rural areas have now become largely concentrated in urban locations.

Among rural social movements across the Global South, migration resulting in depeasantisation is viewed as a consequence of decades of socially and ecologically

3 Klein, N. (2014), *This Changes Everything: Capitalism vs the Climate* (New York, NY: Simon & Schuster), p. 169.

4 Jain, P., and Sharma, A. (2019), «Super-exploitation of Adivasi Migrant Workers: The Political Economy of Migration from Southern Rajasthan to Gujarat», *Journal of Interdisciplinary Economics* 31(1), 63-99.

5 Araghi (1995), «Global Depeasantization», p. 337 (see note 2).

6 Ibid.

destructive development policies that have led to the rapid deterioration of the ability of small peasants and landless workers to be able to live and reproduce within the agrarian economy. With roots that stretch back to the late colonial period, the opposition to such policies in Brazil, South Africa and many other countries manifests itself today in campaigns for the right to stay put as well as movements calling for land redistribution and/or reform. Moreover, many rural social movements have been proposing alternatives to the dominant model of agricultural production, which remains highly reliant on practices that are devastating the soil, water and environment, and which produce high levels of greenhouse gases in the atmosphere. In the next section, I examine some of the responses from rural social movements in the Global South to the ongoing dispossession of rural peoples.

Voices from below: How rural social movements respond to rural dispossession

Responding to agrarian distress and rural dispossession in Asia, Africa and the Americas, rural social movements have opposed the dispossession of rural peoples, thereby providing powerful counter-visions of climate justice. In this section, I examine three rural social movements and their visions: the Landless Workers' Movement (MST) in Brazil, the Landless People's Movement (LPM) in South Africa and the Indonesian Peasant Union (SPI) in Indonesia. Each of the movements in question view land, livelihood and mobility as fundamentally related to each other and climate justice.

The right to become peasants: The MST in Brazil and the dignity of rural life

The MST of Brazil, a movement with more than three million members, most of whom have participated in land occupations, has challenged the dispossession of rural peoples through assertion of the «right to become peasants», thereby providing an alternative vision of climate and mobility justice from below.

The Brazilian context is a particularly harsh example of how the expansion of modern agricultural practices can bring agrarian and ecological devastation. The modernisation of agriculture in the late 1960s under the military junta led to 28 million rural workers and peasants being expelled from the countryside to cities.⁷ This, in turn, created an employment crisis in Brazilian cities, as the ratio of rural to urban residents was massively transformed within a short span of three decades. Since the 1980s, Latin American agriculture, especially in Mexico and Brazil, began to be transformed by market and trade liberalisation, the specialisation of production and domination of the world food system by agribusiness.⁸ The negative ecological impact of agribusiness in Brazil has been widely catalogued, with

7 Vergara-Camus, L. (2009), «The MST and the EZLN's Struggle for Land: New Forms of Peasant Rebellions», *Journal of Agrarian Change* 9(3), 365–91, available at: <https://eprints.soas.ac.uk/13021>.

8 *Ibid.*, p. 370.

the most recent and obvious example being the fires that blazed across the Amazon rainforest in 2019.

It is in the context of these recent waves of mass dispossession and ecological destruction in the countryside and the ensuing employment crisis in the rural and urban economies that the MST emerged in Brazil. Its success lay in providing an exit strategy to peasants and rural workers caught in the devastation caused by expanding agrobusiness, leaving them to confront the choice between social marginalisation in cities and land occupation.⁹ The movement emerged in the 1960s, when it began to gain support among land-poor peasants, landless peasants and rural workers who had prior experience with «subsistence agriculture and non-monetized relations of production».¹⁰ It was subsequently joined by landless rural workers and even urban dwellers.¹¹

The MST's objective is to create «a space for subsistence» by gaining access to land and cultivating it for self-consumption.¹² The Agrarian Programme of the MST strongly opposes Brazilian agribusiness while holding it responsible for climate change.¹³ It also asserts the right to reverse the historic dispossession of peasants under agricultural modernisation by rejecting the precarious life in Brazil's *favelas* and undertaking land occupations as a mechanism to *become* peasants. Once the occupations are completed, the MST fiercely defends their new agrarian settlements against continued attempts from the Brazilian state and agribusiness to dispossess them. This means that the MST's approach to climate justice and mobility is constituted by a complex articulation of the right to move or stay put predicated upon ideas of autonomy, dignity and self-determination. In asserting these rights, the MST challenges the basic premise of modernisation theory, which assumed the inevitability of the transformation of peasants into urban workers through dispossession. Its priorities compel us to think beyond narrow interpretations of the climate crisis as producing migration of a particular form – from ecologically distressed rural environments in the Global South to the «developed» world.

Connecting land and labour: The LPM in South Africa

As in Brazil, the demand in South Africa for land constitutes a desire to reverse patterns of dispossession and precarious mobility, which are often direct continuations of the colonial period. In South Africa, dispossession and historical patterns of migration have not been accidental outcomes of a developmental process. Rather, they have been planned strategically by colonial rulers and the post-colonial state through the creation of «labour reserve colonies». The latter involved the large-scale alienation of land to colonial settlers. The dispossession of land for

⁹ Ibid., p. 371.

¹⁰ Ibid., p. 379.

¹¹ Ibid.

¹² Ibid.

¹³ MST (2014, February), «Agrarian Programme of the MST», Sixth National MST Congress, available at: www.mstbrazil.org/files/CRI%20-%20%20Agrarian%20Program%20of%20the%20MST%20-%20dez13.pdf.

white settler agriculture provided a mobile and cheap labour force for large farms and plantations, as well as the mining industry.¹⁴

These patterns of mobility have continued in the post-colonial period, whereby South Africa continues to attract dispossessed migrant labour in the urban, agrarian and mining sectors from within and outside the country. It is in this context that the debate around land becomes crucial. Immediately after the end of apartheid, the National Land Committee was formed in 1990 to articulate a way to reverse the colonial landgrabs that had been the root of racial, economic and ecological injustice in the country. The continued legacy of these processes became visible in the run-up to the 2002 FIFA World Cup, when tens of thousands of land occupants began to be dispossessed for infrastructure and beautification.¹⁵ This revival of the land question coincided with the emergence of the LPM in 2001 and bottom-up land reforms in Zimbabwe.

With the African National Congress showing little interest in addressing the land question, it was left to social movements to articulate the demand for land reform, as well as continue land occupations on the ground. One of the founding documents of these movements – the Landless People's Charter, signed in August 2001 in Durban – states: «We are the people who have borne the brunt of colonialism and neocolonialism, of the invasions of our land by the wealthy countries of the world, of the theft of our natural resources, and of the forced extraction of our labour by the colonists.»¹⁶

By connecting land and labour, the charter shows how the movements that make up the LPM in South Africa view a connection between dispossession, forced migration and exploited labour. Whereas developmental agencies are often happy to see migration as an issue of economic choice, South African social movements see the questions of land and migration in relation to racial, agrarian and ecological justice. The LPM has acquired a growing list of allies – churches, development agencies, iNGOs and the Brazilian MST – with whom it articulates a global struggle against landlessness.¹⁷

Where land has been occupied or reclaimed and/or given to peasants by the state in South Africa, it has been returned in a poor ecological condition.¹⁸ The LPM recognises the ecological devastation of land that transpires with commercial agriculture and the need to restore its ecological health. This is why, in 2018, the LPM was signatory to a joint letter to South African President Matamela Ramaphosa to call a special parliamentary session on the climate crisis to recognise the link

14 Bernstein, H. (2005), «Rural Land and Land Conflicts in sub-Saharan Africa», in Moyo, S., and Yeros, P. (eds.), *Reclaiming the Land: The Resurgence of Rural Movements in Africa, Asia and Latin America*, p. 69 (London: Zed Books).

15 Sinhongonyane, M.F. (2005), «Land Occupations in South Africa», in Moyo, S., and Yeros, P. (eds.), *Reclaiming the Land: The Resurgence of Rural Movements in Africa, Asia and Latin America*, p. 142 (London: Zed Books).

16 *Ibid.*, p. 156.

17 *Ibid.*

18 *Ibid.*, p. 151.

between «drought, water inequality and the need for a food sovereignty system».¹⁹ Climate justice in South Africa, according to this perspective, requires addressing the legacy of colonialism and post-colonial dispossession through redistributing and rehabilitating the land.

Indonesian peasant movements' challenge to the plantation economy

In Indonesia, patterns of mobility and resistance were shaped for over a century during the colonial period by the deliberate population of its outer islands to provide cheap, controllable labour for plantations.²⁰ When the Sukarno government, supported by movements such as the Indonesian Peasants' Front (BTI),²¹ began to improve the conditions of rural populations in the plantations through land reform, US-backed General Suharto seized power and undertook a series of massacres that decimated peasant movements in Indonesia.²² The Suharto regime gave the plantation economy new life by continuing the colonial project of transmigration to the outer islands – a policy designed to ensure the plantations received a continuous supply of migrant labour.²³

For more than three decades, Suharto's authoritarian regime continued expanding oil palm plantations through the forced dispossession of small landholders,²⁴ which is a policy that has continued alongside the well-documented cutting and burning of the country's vast tropical forests. By 2015, out of a total of 7.3 million hectares of oil palm plantations in the archipelago, 5.1 million hectares were owned by 29 large oil palm tycoons. The current Indonesian regime plans to expand these plantations by another 20 million hectares through the further dispossession of smallholders and forest destruction.²⁵

Since the end of formal authoritarianism, rural social movements in Indonesia have tackled the question of plantations head on through land occupations, and have broken away from the contract farming model through the adoption of «peasant agroecology». Although its success has been contested – and it remains a mode of agrarian production very much in the process of being refined – the adoption of «peasant agroecology» has the potential to disrupt centuries of ecological destruction and socio-economic dispossession.

The Federation of Indonesian Peasant Unions (FSPI) emerged amidst an eruption of land occupations all over Indonesia in 1998, when thousands of landless

19 «Open Letter to President Ramaphosa on Climate Change», available at: www.markswilling.co.za/2018/11/open-letter-to-president-ramaphosa-on-climate-change.

20 This was regulated under the Coolie Ordinance Acts of 1880.

21 Masalam, H. (2017), «Our Crops Speak: Small and Landless Peasant Resistance to Agro-extractive Dispossession in Central Sulawesi, Indonesia», in Kapoor, D. (ed.), *Against Colonization and Rural Dispossession: Local Resistance in South and East Asia, the Pacific and Africa*, p. 107 (London: Zed Books).

22 Ibid.

23 Ibid., p. 100.

24 Aditjondro, G.A. (2001), «Suharto's Fire: Suharto Cronies Control an ASEAN-wide Oil Palm Industry with Appalling Environmental Record», *Inside Indonesia*, 65 (January–March).

25 Masalam (2017), «Our Crops Speak», p. 99 (see note 21).

peoples began to occupy state and plantation lands.²⁶ The movements began to replace oil palm, rubber, cocoa, coffee, teak and pine plantations with small-scale farms growing smallholder crops such as coffee, rice, cassava, banana, rubber, mahogany, avocado and clove.²⁷ In the same period, the nascent movement was able to organise significant protests and push the government to pass agrarian reform²⁸ – an important step towards formal recognition of the land occupations.²⁹

The SPI has not only continued to occupy and resist dispossession, its members have engaged in reclaiming ecologically devastated lands through agroecological production. One case study involves a group of plantation workers who reclaimed an abandoned industrial area in Casiavera and replaced it with small-scale agriculture.³⁰ These former plantation workers rejected precarious and mobile plantation life to become smallholder peasants. Soon they were joined by another 200 families, which included former street vendors and construction workers in Sumatra's cities, oil palm plantation workers and even nannies who returned from Malaysia.³¹ The SPI supported the newly formed peasant community of Casiavera to reclaim the land's fertility and biodiversity through agroecological agriculture by inviting them to attend SPI agroecological schools.³²

This case shows that dispossession and occupation are core issues around which the discourse and practice of rural social movements are organised. In the Indonesian context, reclaiming the land is supplemented by an objective to restore its ecological balance and counter the domination of agrobusiness. Moreover, the SPI has opposed projects to privatise almost 96,000 hectares of rainforest under the REDD+ carbon trading scheme, where it has argued that such schemes consolidate the ongoing corporate control over territory and expand profits.³³ Having opposed both deforestation and the dispossession of peasants, the SPI – like other rural social movements such as the MST and the LPM – increasingly views land reform and peasant agroecology as integral to climate and mobility justice.

26 Afifi, S., Fauzi, N., Hart, G., Ntsebeza, L., Peluso, N. (2005), «Redefining Agrarian Power: Resurgent Agrarian Movements in West Java, Indonesia», working paper in Recent Work series, p. 4 (Berkeley, CA: Center for Southeast Asia Studies, University of California, Berkeley).

27 Gilbert, D.E. (2019), «Labourers Become «Peasants»: Agroecological Politics in a Sumatran Plantation Zone», *Journal of Peasant Studies* 47(5),1030–51.

28 Known as the People's Consultative Assembly Decree No. IX/2001 or TAP MPR No. IX/2001.

29 Afifi et al. (2005), «Redefining Agrarian Power», p. 20 (see note 26).

30 Gilbert (2019), «Labourers Become «Peasants»», p. 1 (see note 27).

31 *Ibid.*, p. 3.

32 *Ibid.*, p. 4.

33 La Via Campesina (2018), «La Via Campesina in Action for Climate Justice», *Ecology* Volume 44.6 (Berlin: Heinrich Boll Stiftung), pp. 18–19, available at: www.boell.de/sites/default/files/radical_realism_for_climate_justice_volume_44_6_1.pdf.





Photo: © Nora Babel - latif

Flooding in Bedono, Demak Region, Indonesia

Transnational peasant visions: Advocating food sovereignty for agrarian and climate justice

The MST, the LPM and the SPI are each part of a transnational peasant organisation, La Via Campesina (LVC), which brings agrarian reform and peasant agroecology together as essential components of its advocacy of «food sovereignty». With more than 130 peasant and small-farmer organisations from more than 90 countries, many consider the LVC to be «the most important social movement in the world»³⁴ for its ability to set «innovative agendas for political and social policies» in addition to developing a «new relationship between the [Global] North and [Global] South» through «peasant movement to peasant movement» cooperation.³⁵ The LVC has been recognised as a leading member of the anti-globalisation movement for its role in protests against the World Trade Organization (WTO), the Free Trade Area of the Americas as well as for its role in the World Social Forum process. Though it is known for its scathing critiques of World Bank land policies, its most important achievement has arguably been its establishment of the novel concept of food sovereignty, which it has brought into common usage.³⁶

A product of the bold ecological vision³⁷ of peasant organisations in Latin America during the 1980s, the LVC was formed in the presence of 70 peasant leaders in Mons, Belgium, in May 1993. It quickly asserted itself at the heart of worldwide opposition to globalisation, articulating a strong grassroots vision of social and climate justice based on the experience of its member movements, which span from South-East Asia to North America. The importance of the LVC movements at the national level – discussed in the cases of Brazil, South Africa and Indonesia – was now combined with an unprecedented ability to provide novel concepts in the transnational arena. These found support across a range of developmental actors, including national governments, iNGOs and parts of UN bodies, such as the Food and Agricultural Organization (FAO). Developed at its second international conference in Tlaxcala, Mexico, in April 1996, the concept of food sovereignty made its way into public debate as a counter-position to the dominant «food security» discourse during the first World Food Summit in 1996.³⁸ Martínez-Torres and Rosset note that «[d]ominant neoliberal viewpoints see food and farming as about little more than producing interchangeable products for trade. In contrast, food sovereignty argues that food and farming are about [...] inclusive local and national

34 Martínez-Torres, M.E., and Rosset, P. (2010), «La Vía Campesina: The Birth and Evolution of a Transnational Social Movement», *Journal of Peasant Studies*, 150.

35 Ibid.

36 Ibid., p. 151.

37 For example, the 1990 Declaration of Quito states: «We do not own nature [...] it is not a commodity [...] we believe this meaning of humanity and of the environment is not only valid for our communities of Indo-American people. We believe this form of life is an option and a light for the people of the world oppressed by a system which dominates people and the environment.»

38 Ibid., p. 160.

development, for addressing poverty and hunger, preserving rural life, economies and environments, and for managing national resources in a sustainable way.»³⁹

Food sovereignty as a concept asserts «the right to farm as an act of social stewardship of the land and food redistribution against the destabilising and exclusionary impacts of the neoliberal model». ⁴⁰ The Declaration of Nyéléni from 2007 states its opposition to «development projects/models and extractive industry that displace people and destroy our environments and natural heritage». Instead, it asserts that «the rights to use and manage our lands, territories, waters, seeds, livestock and biodiversity are in the hands of those of us who produce food». ⁴¹ These assertions reflect a will to retain the right to remain/become peasants, to reshape the food system, and to address the ecological crisis at both the domestic and global levels.

The concept of «peasant agroecology» was consolidated in the Declaration of the International Forum for Agroecology in Nyéléni, Mali, in 2015. Declaring itself in opposition to «the industrial food system [as] a key driver of the multiple crises of climate, food, the environment, public health and others,» it asserts that⁴²

«[w]e must [...] build our own local food systems that create new rural-urban links, based on truly agroecological production by peasants, artisanal fishers, indigenous peoples, urban farmers. [...] We see agroecology as the essential alternative to the industrial model, and as the means of transforming how we produce and consume food into something better for humanity and Mother Nature.»

It is these principles that shape the LVC's involvement in a number of transnational forums, including the United Nations, FAO, the Committee on World Food Security (CFS) and the Conference of the Parties (COP), as well as its rejection of the agendas of other transnational institutions such as the WTO, the International Monetary Fund and the World Bank.

The LVC has been a vocal presence within and outside the COP, where it has pushed for a climate justice agenda that supports the adoption of peasant rights, food sovereignty and peasant agroecology. In doing so, it has called into question dominant thinking on the climate question, most of which revolves around ostensibly technological solutions: agrofuels, geoengineering, SMART agriculture, GM crops, carbon trading and so on. In strong language, it has described these as false

³⁹ Ibid., p. 160.

⁴⁰ Michael, P. (2006), «Peasant Prospects in the Neoliberal Age», *New Political Economy*, 11(3), 414.

⁴¹ It goes on: «Food sovereignty prioritises local and national economies and markets and empowers peasant and family farmer-driven agriculture, artisanal – fishing, pastoralist-led grazing, and food production, distribution and consumption based on environmental, social and economic sustainability. Food sovereignty promotes transparent trade that guarantees just income to all peoples and the rights of consumers to control their food and nutrition.» La Via Campesina (2007), «Declaration of Nyeleni», available at: <https://viacampesina.org/en/declaration-of-nyeli>.

⁴² The 2015 Declaration of the International Forum for Agroecology, Nyeleni.

solutions that constitute «crimes against humanity».⁴³ It produces a wide array of literature for both its members and the public in preparation for climate summits, advocating the «replacement of industrialised agriculture and animal production by small-scale sustainable agriculture».⁴⁴ An LVC press releases at the COP 22 in Bonn, Germany, makes clear that its solution to the climate crisis involves fundamental transformation of the global food system: «Our call for system change is urgent because the damage is growing. Commons, including land, forests and water, must be protected and restored to the people.»⁴⁵

The LVC's advocacy of food sovereignty and agroecology won a crucial victory in 2018 when, after decades of protests and lobbying, it secured the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP). Moreover, the LVC has successfully operated within the civil society mechanism as part of the CFS, where it has pushed for negotiations on guidelines pertaining to land tenure, the right to adequate food, small-scale fisheries' food systems, nutrition and agroecology. These engagements are often highly contested and politicised, with negotiations taking place between national governments, international development agencies, the private sectors, civil society and social movements. The LVC remains critical of ongoing processes at the UN, including the UN Secretary-General handing control of the next World Food Summit to the head of the Alliance for a Green Revolution in Africa, Agnes Kalibata.⁴⁶ Current discussions in the LVC Public Policy collective – in which the author is involved as a representative from LVC South Asia – include proposals to host an alternative world food summit that centres on rural social movements and their allies rather than global agribusiness, which it holds responsible for rural dispossession and the ecological crisis in global agriculture.

Conclusion

This chapter has argued that climate justice cannot be separated from the historical and contemporary struggles of rural populations for food sovereignty. It has aimed to share some principles on how rural social movements from the Global South are offering concrete visions and practices for a peasant pathway to climate justice. For rural social movements, this course requires building an ecologically sustainable

43 LVC (2016), «Via Campesina at COP 22: False Solutions to Climate Change May Constitute Crimes against Humanity», available at: <https://viacampesina.org/en/via-campesina-at-cop-22-false-solutions-to-the-climate-crisis-may-constitute-crimes-against-humanity>.

44 LVC (2009), «Sustainable Scale Sustainable Farmers Are Cooling Down the Earth», Via Campesina Views, Paper 5, available at: <https://viacampesina.org/en/wp-content/uploads/sites/2/2015/12/EN-paper5.pdf>.

45 LVC (2017), «La Via Campesina Responds to COP 23 Calling for Peasant Agroecology», available at: <https://viacampesina.org/en/via-campesina-responds-cop23-calling-peasant-agroecology>.

46 LVC (2020), «Via Campesina Denounces UN Envoy for UN Food Systems Summit for Diminishing Peasants and Their Rights», available at: <https://viacampesina.org/en/viacampesina-denounces-un-special-envoy-for-the-un-food-systems-summit-for-diminishing-peasants-and-their-rights>.

food system that *protects* rural populations from dispossession and provides the opportunity for mobile labouring populations to become rural producers. In concrete terms, this means rural social movements articulate the right to remain/become peasants as integral to climate justice, in that they assert the right of rural populations not to be displaced, as well as the right of vulnerable labouring populations to be able to find a way of reasserting their dignity and sovereignty by occupying land and cultivating it through the developing practice of peasant agroecology.

Rural social movements assert their right to be more than passive recipients of policy solutions in the midst of economic, ecological and climate change-related distress, and to actively solve the global economic and ecological crises by asserting the right to become stewards of the land and food. As we have seen in case studies of the MST in Brazil, the LPM in South Africa and the SPI in Indonesia, rural social movements in the Global South insist on their right to land, the rights of nature, and the right to stay put, and they believe these rights are fundamentally linked. Climate justice for vulnerable rural populations does not merely involve the recognition of new legal categories such as «climate refugees». It requires policies that address the continued legacy of the colonial and contemporary dispossession of peoples and the continued destruction of rural environments.

Rural social movements are under attack in almost all countries of the Global South. The MST, the SPI and the LPM operate under authoritarian regimes. Their cooperation in La Via Campesina provides much-needed solidarity and contributes to the creation of a collective idea of rural development designed by movements rather than policymaking elites. Important victories, such as UNDROP, are increasingly under threat in a political atmosphere where pro-industry authoritarian governments that deny climate change have taken power across the world. Global agribusiness has found itself empowered in relation to rural social movements, and the Paris Agreement has been weakened. Within this context, the amplification of rural voices in the transnational sphere is more important than ever. These voices, which seek to overturn a century and a half of developmental theory and practice designed to displace rural populations, must figure prominently in the policies that seek to address climate justice and mobility.

Climate change, urban futures, and the gendering of cities in South Asia

Introduction

Comprised of the nation-states of Afghanistan, Bangladesh, Bhutan, Nepal, India, Maldives, Pakistan and Sri Lanka, South Asia is home to an estimated 1.5 billion people. This region accommodates a large portion of the world's poor and marginalised populations, an increasing share of which live in urban areas. Between 2001 and 2011 South Asia's urban population grew by 130 million and is projected to reach 250 million by 2030.¹ South Asia is also anticipated to be one of the regions worst affected by climate change; its cities are under serious threat from rising air pollution and sea levels, increasing incidences of extreme weather events such as floods, cyclones and storm surges, in addition to the irregularity of the monsoons and intense heat waves. Many cities in this region are located on floodplains, in dry areas or on coasts where severe floods have led to the destruction of homes, the loss of livelihoods and the loss of life. The prediction of the Intergovernmental Panel on Climate Change (IPCC) in 2007 that freshwater shortages in South Asia would be compounded by flooding (from rivers, flash floods and sea surges) has proven to be accurate.² Furthermore, more than 800 million people in South Asia presently live in communities projected to become zones with extremely high temperatures that will cause increased damage, especially under the region's carbon-intensive energy regimes.³

- 1 Ellis, P., and Roberts, M. (2016), *Leveraging Urbanization in South Asia: Managing Spatial Transformation for Prosperity and Liveability* (Washington, DC: World Bank).
- 2 IPCC (2007), *Climate Change 2007: Synthesis Report* (New York, NY: IPCC).
- 3 Muthukumara, M., Bandyopadhyay, S., Chonabayashi, S., Markandya, A., and Mosier, T. (2018), *South Asia's Hotspots: Impacts of Temperature and Precipitation Changes on Living Standards* (Washington, DC: World Bank), available at: <http://hdl.handle.net/10986/28723>.

If it was once possible to write about future rural and urban areas as distinct sites of struggle and lived experience, today South Asian cities can no longer be viewed as isolated zones protected from the vagaries of nature and climate change. For instance, in the past, the plight of farmers who braved droughts and floods – and even lost their lives to weather-related events – hardly impacted city dwellers, except for price rises in food and other related commodities. Such scenarios, in which the rural world suffered in relative isolation, contrast sharply with the impact of events such as Cyclone Ampan, which devastated large parts of eastern India and Bangladesh in 16–19 May 2020. Not only did it wash away crops, cattle and embankments in remote rural regions, Ampan also caused devastation in the city of Kolkata, where high winds and floods damaged infrastructure: The city's airport was flooded and electricity poles, trees and settlements in urban slums were razed to the ground. The disastrous effects of this cyclonic event were particularly severe on the urban poor, especially those with inadequate and insecure housing.

The long-term impacts of such extreme weather events – along with the fallout of ill-planned developmental projects for mitigating climate change – are particularly evident in regions such as the Indus Delta in Pakistan, and Khulna and the Sundarbans in Bangladesh – ecologically fragile zones from which the rural and landless poor are displaced, effectively driven into insecure urban settlements in South Asian cities. Of course, cyclonic events and flooding are by no means unique or exceptional to these cities. Globally, city dwellers have been living and coping with extreme weather events linked to climate change for many years. What we propose to show in this chapter, however, is how the impact of such occurrences exposes the foundational and structural flaws of our cities, thereby raising urgent questions and policy issues related to class and gender inequality.

Examining the relationship between climate change and urbanisation, we show how climate change risks in urban South Asia disproportionately affect the livelihoods, health and wellbeing of the poor, especially women; how they entrench displacement and precarity; and how extreme heat, water scarcity, pollution and dust impact their lives, health and livelihoods. As we propose to show, issues of climate change mitigation and adaptation are compounded by the fact that provisions for essential services such as clean water and clean air are far below regional thresholds and do not meet general social welfare criteria. For instance, although cities may factor in climate change, it is imperative that a broader understanding of the interface between climate and development priorities across policy and governance at all levels be developed to reduce the ill-effects of climate change in urban areas.⁴ Even as South Asian cities are transforming into global cities, the urban poor remain confined to settlements that lack access to basic housing, water and electricity supplies. Despite providing avenues of employment for large numbers of the rural and urban poor, South Asia's construction boom is not ameliorating the conditions in which most are forced to live and earn their livelihoods. In fact, for

4 Khosla, R., and Bhardwaj, A. (2019), «Urbanization in the Time of Climate Change: Examining the Response of Indian Cities», *WIREs Clim Change*, 10, e560.

the migrant poor, who lack political voice in cities, real estate development disrupts social networks while heightening exposure to emerging climate risks and financial precariousness, thereby generating conditions of injustice and exclusion.⁵

Climate change, urbanisation and displacement

Today, most South Asian cities are struggling with the pressures of population growth on land, housing, infrastructure and basic services, alongside climate change impacts that include fast-rising temperatures, volatile precipitation levels and flooding. Seasonal high temperatures – concurrent with either summer-time or with dry or rainy seasons – continue to break annual records in localised manifestations of global heating. The combination of extreme heat with extreme humidity is becoming more severe in South Asian cities, and this presents unique health risks. Much of South Asia's urbanisation is reflected in the older slums in cities as well as the emerging informal settlements,⁶ in which nearly 130 million South Asians reside.⁷ Informal settlements are also spreading out to the peripheries of cities. Indeed, amidst the massive urban transformation in South Asia, it is now evident that the majority of the expansion is taking place beyond municipal boundaries.⁸ Agrarian hinterlands and so-called urban peripheries have witnessed the most dramatic changes.⁹

Urban and rural/agrarian entanglements are shaping the contested politics of land, real estate and infrastructure to produce a «highly unequal and tense socio-political landscape of access, inclusion and displacement».¹⁰ Within this urban-rural landscape, pastoralists, indigenous groups and agriculturalists are willingly, or through coercion, giving up their land and/or their livelihoods; the bonds of kinship and social relations that underpin their communities are being eroded.¹¹ As Gururani and Dasgupta note:

- 5 Chu, E., and Michael, K. (2018), «Recognition in Urban Climate Justice: Marginality and Exclusion of Migrants in Indian Cities», *Environment and Urbanization* 31(1), 139–56.
- 6 Not all informal settlements are slums and nor are they necessarily «informal». Context matters but broadly speaking, informal settlements arise out of informalised processes of land acquisition, e.g. incomplete property rights, self-help construction. For a substantive discussion on the tricky matters of defining slums and informal settlements and relevance to policy, see Gilbert, A. (2007, December), «The Return of the Slum: Does Language Matter?», *International Journal of Urban and Regional Research* 31(4), 697–713.
- 7 Ellis and Roberts (2016), *Leveraging Urbanization* (see note 1).
- 8 Ibid.
- 9 Anwar, N.H. (2018), «Receding Rurality, Booming Periphery», *Economic & Political Weekly* 53(12), 46–54; Gururani, S., and Dasgupta, R. (2018), «Frontier Urbanism: Urbanisation beyond Cities in South Asia», *Economic and Political Weekly* 53(12), 41–45.
- 10 Gururani and Dasgupta (2018), «Frontier Urbanism», 42.
- 11 Anwar (2018), «Receding Rurality» (see note 9); Gururani and Dasgupta (2018), «Frontier Urbanism» (see note 9).

«[...] these frontiers are made up of dispossessed peasants, displaced migrants, and poor tenants, who battle for space with new middle- and upper-class housing enclaves, shopping malls, office towers, and infrastructure corridors. They must share these frontiers with flexible state functionaries, local intermediaries and landlords, rent extractors and land speculators, petty entrepreneurs and real estate agents. Many are caught in the middle of rapidly-changing livelihoods and aspirations, between value extraction and appropriation.»¹²

In urban Pakistan, the combination of a high-density population and a heavily built environment; the extensive use of asphalt and concrete in construction; and the lack of green space all create an urban heat island effect that can add as much as 12°C to average recorded temperatures.¹³ In June 2015, temperatures in Karachi – where an estimated 12.4 million people (62 per cent of the city's population) live in informal settlements – rose to 44.8°C, resulting in more than 1,000 deaths being recorded in 10 days.¹⁴ Prior to the heatwave, increased demand for energy had triggered prolonged power outages; the rise in temperature placed further pressure on already limited public water supplies. The effects were particularly pronounced in high-density areas, where narrow lanes and congested built environments curtailed wind circulation. Just as heatwaves have become a prominent source of vulnerability in South Asian cities affected by climate change, so too has water scarcity. Coupled with other climate-related factors such as extreme heat, unseasonal rains and urban flooding, its impact is particularly harmful.

Dhaka, a city of 17 million people, exemplifies the acute challenges of urbanisation and water scarcity, as these intersect with climate change impacts. Nearly one-third of Dhaka's residents confront what has been described as «climate apartheid».¹⁵ The elite navigate the city by avoiding slums and informal settlements, which is where: the vast majority of Dhaka's poor and marginalised groups reside, infrastructure services are generally lacking and safe drinking water remains inaccessible. Inequality and lack of affordable housing force the urban poor to live in informal spaces that are likely to be more vulnerable to climate change hazards such as flash floods, thus increasing their exposure to flooding. With homes destroyed and livelihoods compromised due to flooding, marginalised communities have less ability to cope with, and recover from, the damage caused by such displacement.¹⁶

12 Gururani and Dasgupta (2018), «Frontier Urbanism», 43.

13 Anwar, N., Amin, S., Cross, J., Friedrich, D., Khandekar, A., Morelle, ...Nastiti, A. (2020, July 2), «Heat and Covid-19 in the Off-Grid City», *Somatosphere*.

14 Ebrahim, Z.T. (2019, July 26), «Is Karachi Ready to Fight the Next Big Heatwave?» *Dawn*.

15 Sultana, F. (2020, June 24), «Political Ecology 1: From Margins to Center», *Progress in Human Geography*, <https://doi.org/10.1177/0309132520936751>.

16 Sultana, F. (2010), «Living in Hazardous Waterscapes: Gendered Vulnerabilities and Experiences of Floods and Disasters», *Environmental Hazards* 9(1), 43–53.

However, displacement is a multifaceted dynamic in South Asian cities. It includes not only forced displacement due to land conflicts and/or climate change risks, but also development-induced displacement. Indeed, urban development causes the displacement of millions of people worldwide every year, and the proportion of displaced urban residents is rapidly growing.¹⁷ In 2018 alone, approximately 70.8 million people were forcibly displaced in this manner.¹⁸ If the uprooting of people from their land and homes through development is at times highly visible (e.g. forced evictions), less visible manifestations include development policies that undermine livelihoods.¹⁹ «Gentrification», «slum clearance», «slum evictions» and so forth are all terms indicating the involuntary movement of people from their homes due to development. Such forms of land-based displacement may interact in complex and violent ways with social and economic outcomes of development that exacerbate risks and vulnerability for the urban poor in a changing climate. For instance, assessments of the outcomes of forced displacement and resettlement to accommodate development show that resettlement policies create new vulnerabilities among resettled populations, particularly among the poor.²⁰ Resettled populations are often pushed to the rural-urban margins where social marginalisation, reduced access to infrastructure and unstable employment combine to generate uncertainties. In fact, planned resettlement to accommodate development has been associated with adverse health outcomes, including food insecurity.²¹

In cities such as Lahore,²² Karachi,²³ Delhi²⁴ and Colombo,²⁵ the experience of displacement and the resultant resettlement and homelessness have defined the process of habitation for the vast majority of the poor. In recent decades, urban

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- 17 Cernea, M.M. (2008), «Compensation and Benefit Sharing: Why Resettlement Policies and Practices Must Be Reformed», *Water Science and Engineering* 1(1), 89–120.
- 18 UNHCR (2019), *Global Trends: Forced Displacement in 2018*, available at: www.unhcr.org/globaltrends2018.
- 19 Penz, P., Drydyk, J., and Bose, P.S. (2011), *Displacement by Development: Ethics, Rights and Responsibilities* (New York, NY: Cambridge University Press).
- 20 Cernea, M.M. (1997), «The Risks and Reconstruction Model for Resettling Displaced Populations», *World Development* 25(10), 1569–87.
- 21 Ibid., 1997.
- 22 Abeyasekara, A., Maqsood, A., Perera, I., Sajjad, F., and Spencer, J. (2020), «Discipline in Sri Lanka Punish in Pakistan: Neoliberalism, Governance, and Housing Compared», *Journal of the British Academy* 7(s2), 215–44.
- 23 Anwar, N.H. (2018, August 21), «The State Wants to Make Karachi a «World-class» City. But What's the Cost?», *Dawn*; Hasan, A., Maher, M., Ahmed, N., and Qayyum, F. (2018), *Karachi Eviction 2018: A Brutal and Shameful Act in the Name of Law*, vol. 1 (Karachi: Urban Resource Centre).
- 24 Bhan, G. (2009), «This Is No Longer the City I Once Knew. Evictions, the Urban Poor and the Right to the City in Millennial Delhi», *Environment and Urbanization* 21(1), 127–42; Dupont, V.D. (2008), «Slum Demolitions in Delhi Since the 1990s: An Appraisal», *Economic and Political Weekly*, 79–87.
- 25 Abeyasekara et al. (2020), «Discipline in Sri Lanka» (see note 22); Amarasuriya, H., and Spencer, J. (2015), «With That, Discipline Will Also Come to Them: The Politics of the Urban Poor in Post-war Colombo», *Current Anthropology* 56 (suppl. 11), S66–S75.

development plans that include mega-infrastructure projects, tourism and city beautification have entailed heavy costs in terms of the demolition of slums and informal settlements. Such plans have been enacted without solving critical issues relating to adequate shelter for the urban poor. In Delhi, preparations for the 2010 Commonwealth Games provided an opportunity for urban authorities to «clean up» the city, transform its land use and reshape the urban landscape;²⁶ nearly 200,000 people were forcibly evicted as a result.²⁷ In Karachi, the construction of the mega-infrastructure project Lyari Expressway led to the forced displacement of 77,000 families in 2002. Of those affected, only 30,000 were relocated to resettlement colonies on the city's rural-urban margins, where they continue to struggle with curtailed mobility and degraded infrastructure.²⁸ For residents in Lyari Basti – one of the resettlement colonies – life after resettlement has meant greater vulnerability, especially in terms of access to infrastructure. One 70-year-old male resident summarised his experience two decades after resettlement as follows:

«The Musharraf [government] gave us amenities [in 2003] before sending us here. It was agreed [...] that for 7 years there would be no bills for water and electricity. But after 7 years passed, things gradually started getting worse. For example, street cleaning stopped. Sewerage lines started getting choked, and there was no one to maintain them. Piped water started coming once a month, instead of once every week. Then once a month became once in six months, then once a year; now my street hasn't had piped water for the past 7 years.»²⁹

Over the past two decades, Karachi's infrastructure and urban development projects have led to the displacement of well over 400,000 working-class and low-income households from the city's centre.³⁰ Fewer than 33 per cent of the households forcibly evicted have received any form of resettlement or compensation.³¹ Moreover, since 2018, a brutal wave of Supreme Court-backed anti-encroachment drives have led to the demolition of residential spaces and informal markets. This has not only made more people homeless but also eviscerated an estimated 200,000 jobs.³² These are devastating consequences for the vast majority of Karachi's poor residents, who rely on the informal economy for survival.

26 Dupont (2008), «Slum Demolitions» (see note 24).

27 Habitat International Coalition (2011), «Planned Dispossession: Forced Evictions and the 2010 Commonwealth Games», *Fact-Finding Mission Report* No. 14 (New Delhi: Housing and Land Rights Network).

28 Anjum, G., Anwar, N.H., Abdullah, A., Toheed, M., Arif, M., Macktoom, S., ...Rizvi, K. (2021), *Land, Governance, and the Gendered Politics of Displacement in Urban Pakistan*, manuscript in preparation (Ottawa: International Development Research Centre), available at: www.idrc.ca/en/project/governance-land-and-gendered-politics-displacement-pakistan.

29 Ibid.

30 Ibid.

31 Ibid.

32 Hasan et al. (2018), *Karachi Eviction 2018* (see note 23).

Similar dynamics are evident in Pakistan's capital city of Islamabad, where forced evictions have had a profound impact on certain populations, such as the Pashtun and Afghan migrant-refugees, who fled from state-sponsored wars that have devastated Afghanistan as well Pakistan's north-western region of Federally Administered Tribal Areas. Faced with no alternative housing, the migrant-refugees found shelter in Islamabad's informal settlements. In 2015, approximately 20,000 people were displaced in a harrowing eviction operation that was carried out against Islamabad's largest informal settlement of I-11, where many of the migrant-refugees resided.³³ These are people who have experienced the brutality of double-displacement: first due to war, and later due to the criminalisation of their ethnicity, as the state found it convenient to declare them «terrorists» as a means of justifying the evictions.

Urban renewal and the making of global cities in South Asia are often accompanied by evictions. For instance, Colombo's development into a global city involved mass evictions and forced resettlements along the city's margins. These processes of dispossession were ideologically normalised, reflected in a shift in language and public attitudes towards housing. Observers noted a reversal in the way housing policies are framed and presented in Sri Lanka, where welfare provisions for low-income urban residents have been reduced.³⁴ In Indian cities such as Kolkata, informal settlements provide a certain flexibility for urban elites, who plan and govern space to their advantage. The legal ambiguity allows them to push slums, hawking and other visible signs of poverty beyond the borders of townships into nearby slums, where residents lack access to the infrastructure and services necessary to mitigate risk from weather events such as floods.³⁵

Urban air pollution, dust and health

South Asian cities face severe climate-related air pollution and carbon emissions. In Indian cities, the main emission sources for air pollution include vehicle exhaust, on-road resuspended dust, construction dust, industrial exhaust, and domestic cooking and heating. In addition, in cities such as Amritsar, Bhopal, Chandigarh, Coimbatore, Kanpur, Ludhiana and Pune, small- and medium-scale industries are major sources of emissions and industrial pollutants, which further contribute to particulate material PM10 and PM2.5.³⁶ Air pollution causes ill health ranging from eyesight damage to serious cardiovascular, neurological and dermatological complications. People in cities do not experience the same conventional seasonal

33 Turi, H. (2015, December), «They Razed Our Homes», *Tanqeed*, p. 10.

34 Abeyasekara et al. (2020), «Discipline in Sri Lanka» (see note 22).

35 Rumbach, A. (2017), «At the Roots of Urban Disasters: Planning and Uneven Geographies of Risk in Kolkata, India», *Journal of Urban Affairs* 39(6), 783–99.

36 Guttikunda, S.K., Nishadh, K.A., and Jawahar, P. (2019), «Air Pollution Knowledge Assessments (APnA) for 20 Indian Cities», *Urban Climate* 27, 124–41.

transitions; the air drastically changes due to extreme heat or cold and pollution.³⁷ For people with pre-existing respiratory diseases, pollution can cause a life-threatening deterioration of their baseline breathing capacity.³⁸ Studies have also shown that higher temperatures and shifting precipitation patterns will worsen these trends, reducing living standards in communities across South Asia; more than 800 million people at present live in locations projected to become dangerous, given the carbon-intensive climate scenario that seems set to continue.³⁹

Today, it is evident that climate change is not only being driven by greenhouse gases such as carbon dioxide but also short-lived methane, tropospheric ozone and black carbon. Although they reside in the air for short durations of time, these pollutants do considerable damage to the human body. They also impact the economy and wellbeing in a wider sense. On account of the high concentration of black carbon in South Asia's densely populated cities, city dwellers' livelihoods are especially adversely impacted.⁴⁰ For instance, the urban poor who work in the informal economy – including on construction sites and in occupations that rely upon long hours of bicycling and walking – risk exposure to dust and air pollution.⁴¹

With state efforts to make South Asian cities global, construction is an all-pervasive phenomenon of urban life. In India, the construction industry is a major contributor towards gross domestic product, employs 33 million people and impacts 250 associated industries such as cement, coal and technology.⁴² Construction dust is one of the primary pollutants of Indian cities. It exacerbates air pollution and undermines the right to safe and secure housing of urban populations.

Urban land development in Indian cities unfolds through a complex combination of legal and electoral politics. Governments have taken aggressive measures to transform cities in order to attract new capital investments.⁴³ In Mumbai, urban renewal, which is based on the conversion of land, rarely protects the housing rights of the poor.⁴⁴ At the margins of the city, legislative acts and political processes convert the land on which the poor reside into assets for the rich. State policies transform «low-cost» shelters into middle-class apartments, and real estate

37 Sur, M. (2020), «Ambient Air: Kolkata's Bicycle Politics and Post-Carbon Futures», in Elinoff, E., and Vaughn, T. (eds.), *Beyond Environmental Crisis in Asia* (Pennsylvania, PA: University of Pennsylvania Press).

38 Mishra, M. (2019), «Poison in the Air: Declining Air Quality in India», *Lung India* 36(2) (Mar-Apr), 160–61.

39 Muthukumara et al. (2018), *South Asia's Hotspots* (see note 3).

40 US Environmental Protection Agency (2012), *Reducing Black Carbon Emissions in South Asia: Low Cost Opportunities* (Washington, DC: Environmental Protection Agency).

41 Sur (2020), «Ambient Air» (see note 37).

42 Elinoff, E., Sur, M., and Yeoh, B. (2016), «Constructing Asia: An Introduction», *City Special Feature* 21(5), 580–86.

43 Sur, M. (2017), «The Blue Urban: Coloring and Constructing Kolkata», *City* 21(5), 597–606.

44 Bhan (2009), «This Is No Longer the City I Once Knew» (see note 24); Dupont (2008), «Slum Demolitions» (see note 24).

developers use state-sponsored subsidies designed for the urban poor to profit from the construction of apartments for the middle classes.⁴⁵

In the city of Kolkata, informal urban practices of governance underline the troublingly distorted priorities of a political elite that fails to protect citizens from the harmful impacts of construction, yet rarely misses an opportunity to advance its own brand. The ruling party cleverly uses the colour blue to rebrand the city in order to advertise itself and attract investments. The colour's ubiquitous visibility normalises its policies: disruptive real estate development, selective dispossession and corruption.⁴⁶ Despite the existence of such routine maintenance and repair of public infrastructure, the city administration does not ensure the regulation of construction dust, which infiltrates the lungs of construction workers and city dwellers.

The construction boom across South Asian cities employs large numbers of rural to urban migrants in a never-ending cycle of urban expansion, but none of the projects consider the lives and health of the construction workers who are building these cities. Dust from construction sites severely damages their health, and cement dust poses an occupational hazard that causes respiratory, skin-related and haematological health problems. A recent study on construction workers in Indian cities confirms that their blood composition parameters are adversely affected; the cause is attributed to cement dust at work sites.⁴⁷

Cities and rural-urban displacements

South Asia's coastal cities face an uncertain future given the rapid urban growth in low-elevation coastal zones. Global warming causes rises in sea levels, and these climatic changes lead to higher winds, heavier rainfall, stronger storm surges and increased coastal flooding.⁴⁸ In Bangladesh, climate-induced changes are likely to displace 134 million people who today reside in zones that could become moderate or severely dangerous locations by 2050; this comprises more than 82 per cent of the country's population. In addition to the Chittagong Hill Tracts, the port city of Chittagong could become one such location.⁴⁹ In the city of Dhaka, which is facing severe climate threats, scholars have shown how the focus of interventions has been to assess impacts rather than mitigate adaptability and change. For instance, climate change planning at the national level demonstrates that urban issues

45 Jose, G. (2017), «Hawa khaana in Vasai Virar», *City* 21(5), 632–40.

46 Sur (2017), «The Blue Urban» (see note 37).

47 Farheen, A., Hazari, M.H., Khatoun, F., Sultana, F., and Qudsiya, S.M. (2017), «Hematological Parameters Are Acutely Affected by Cement Dust Exposure in Construction Workers», *Annals of Medical Physiology* 1(1), 31–35.

48 Fuchs, R., Conran, M., and Louis, E. (2011), «Climate Change and Asia's Coastal Urban Cities: Can They Meet the Challenge?», *Environment and Urbanization* 2(1) (Asia Issue), 13–28.

49 Muthukumara et al. (2018), *South Asia's Hotspots* (see note 3).

compete with coastal issues and agricultural production; in the process there is a complete lack of coordination among local governments.⁵⁰

Displacement in South Asia due to the impacts of climate change in both rural and coastal regions that are zones of climate crisis impact urban futures. Severe weather-related events such as coastal and riverine flooding, droughts and water scarcity are forcing rural populations to migrate to urban centres. In 2010, more than 20 million people were affected by unprecedented floods that inundated one-fifth of Pakistan, triggering mass migration to cities from rural areas.⁵¹ Approximately 7 million people were rendered homeless with 1.8 million homes destroyed.⁵² Many people did not go back to their hometowns and permanently settled in cities to make a living because of the destruction to their homes and farmlands. Moreover, in the southern region of Pakistan, the ongoing ecological devastation of the Indus Delta has led to the steady outflow of people moving from coastal areas towards urban centres such as Karachi as well as smaller cities in search of better livelihoods and shelter. A recent report on urban resilience in Pakistan details the plight of migrants from the Indus Delta in southern Pakistan. It states:

«The Indus Delta is a coastal area comprising Khario Chan and Keti Bunder in Thatta District of Sindh. Changes in the rural ecology and political economy of the Indus Delta region have curtailed livelihoods and led to waves of migration. For poor and landless farmers and fishermen of the Indus Delta region of Sindh, control of inland water bodies by influential people, indebtedness to and dependence on landowners, sea-water intrusion and lack of fresh water, and susceptibility to climatic events have pushed people outward over the last three decades. They have mostly settled in fishing villages along the coast of Karachi – Ibrahim Hyderi, Rehri Goth, and Lath Basti. [...] When these migrants arrive in Karachi, there are other disempowerments that impinge upon their desire for a better life – policing of access points to fishing, control of regulatory bodies and harbors by influential people, competition, and destructive fishing practices such as harmful equipment and deep sea foreign trawlers. Older migrants from Thatta, Badin, and Sujawal were frustrated with failing municipal services and low earnings.»⁵³

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- 50 Araos, M., Ford, J., Berrang-Ford, L., Biesbroek, R., and Moser, S. (2017), «Climate Change Adaptation Planning for Global South Megacities: The Case of Dhaka», *Journal of Environmental Policy & Planning* 19(6), 682–96.
- 51 Rendon, R., and Thomas, A. (2010), *Confronting Climate Displacement: Learning from Pakistan's Floods*, Refugees International, available at: www.humanitarianlibrary.org/sites/default/files/2013/05/ConfrontingClimateDisplacement.pdf.
- 52 Ibid.
- 53 Ashfaq, A. (2020, May), *Understanding Urban Resilience: Migration, Displacement and Violence in Karachi* (Islamabad: International Committee of the Red Cross), p. 20.

In Bangladesh's low-lying coastal islands, forming part of a densely populated delta, rising waters, cyclones and floods are threatening communities. This is a region where climate adaptation strategies, combined with the dynamics of agrarian change, are displacing and dispossessing people who have historically depended on agricultural work to survive. In the climate-vulnerable southern district of rural Khulna, Kasia Paprocki has shown how the onset of shrimp farming as a climate adaptation strategy that seeks simultaneously to promote export production has reduced labour opportunities and triggered a process of de-peasantisation and migration towards urban centres. She argues:⁵⁴

«As shrimp ponds take over land from rice and other crop production, the people who used to depend on agricultural work to survive and feed their families increasingly find themselves without a place in the rural economy. As the elderly proprietor of a tea stall commented to me, «shrimp has destroyed all of the farmers», invoking the Bengali word *dhongsho*, meaning literally «destroy», «kill», «waste», or «ruin». These dispossessed farmers migrate out of their villages to find work – to Khulna city, Dhaka, and often Kolkata, in the neighbouring Indian state of West Bengal. Thus, the expansion of commercial shrimp cultivation has a significant impact on the transformation of labour relations throughout the region, as well as the survival of its inhabitants.»⁵⁵

The Bangladesh case is particularly pertinent because it underscores the importance of understanding climate adaptation as a process wherein rural and urban futures are deeply interwoven, and where there are inherent risks for poor rural inhabitants who are often forced to bear the burden of climate mitigation strategies. It also illustrates the potential links between climate-related issues and other kinds of conflict. The onslaught of saline water for shrimp farming and the enclosure of what were formerly common resources led local communities to pursue justice through various forms of mobilisation. This, in turn, was met with a violent backlash from the state's military forces. The presence of battalions of the armed forces and occasional interventions by revolutionary extremists have combined to foster an atmosphere of fear and insecurity in this coastal zone.⁵⁶ The potential for strife that could trigger further displacement remains considerable.

Cities, climates and gender

Experiences of urban renewal, infrastructure development and displacement interact with climate change impacts in ways that are differentiated along lines of

⁵⁴ Paprocki, K. (2019), «All That Is Solid Melts into the Bay: Anticipatory Ruination and Climate Change Adaptation», *Antipode* 51(1), 295–315.

⁵⁵ *Ibid.*, 11.

⁵⁶ Guha Thakurta, M., Hossain, H., and Sur, M. (2011), *Freedom from Fear? Freedom from Want? Rethinking Security in Bangladesh* (New Delhi: Rupa), p. 56.

gender⁵⁷ and social class. This section concerns itself with the manner in which gender, in particular, shapes and reinforces power relations between and among different groups. Across South Asia, gender inequality, in combination with climate vulnerability, presents grave challenges to the wellbeing of the communities and ecosystems upon which they depend. As Farhana Sultana explains:

«[the] [g]endered implications of climate change in South Asia are particularly poignant as patriarchal norms, inequities, and inequalities often place women and men in differentiated positions in their abilities to respond to and cope with dramatic changes in socioecological relations but also foreground the complex ways in which social power relations operate in communal responses to adaptation strategies.»⁵⁸

In many South Asian urban contexts, the driving forces of displacement, the lack of social safety nets, inaccessibility to safe water and weak government responses to disasters interact with climate change risks and hazards to produce highly unequal urban landscapes in which poor women and men are increasingly being left behind. Water injustice in urban contexts is deeply marked by gender differences because women are primarily responsible for domestic responsibilities, which include fetching water for the family. Poor women who live in informal settlements face the double burden of climate change and patriarchy.⁵⁹ For instance, gendered divisions of labour in patriarchal households mean water scarcity increases the physical workload for women as well as the emotional stress they undergo, given that they are often tasked with water provision. In essence, the gendered and lived vulnerabilities of poor women to climate change are exacerbated by the expanding footprint of urbanisation, decrepit infrastructure, displacement and anti-poor urban planning, whereby they are forced to constantly negotiate a terrain of harm.

A good deal of this negotiating occurs at the urban-rural interface. In western Nepal's Kailali and Bardia districts, unpredictable and uneven rainfall has created new challenges, such as increased risks of flooding and lower levels of agricultural production. Women feel particularly vulnerable to these impacts, as higher levels of food insecurity have created fertile ground for domestic violence and greater burdens regarding care. As agriculture has become less reliable due to unpredictable and changing rainfall patterns, men are migrating to cities within

57 We understand gender as the social (rather than biological) attributes, norms, roles and attitudes that are considered appropriate for groups of men and women by a given society and learnt through socialisation.

58 Sultana, F. (2014), «Gendering Climate Change: Geographical Insights», *The Professional Geographer* 66(3), 372–81.

59 Anwar, N.H., Sawas, A., and Mustafa, D. (2020), «Without Water, There Is No Life: Negotiating Everyday Risks and Gendered Insecurities in Karachi's Informal Settlements», *Urban Studies* 57(6), 1320–37; Sawas, A., Anwar, N.H., and Anjum, G. (2020), «Climate Change and Security in Urban Pakistan: A Gender Perspective», in *Gender, Climate & Security: Sustaining Inclusive Peace on the Frontlines of Climate Change* (New York, NY: UN Women), pp. 1–17.

Nepal, to India and to Gulf countries to seek alternative income sources.⁶⁰ Under these constrained circumstances, women have reported shouldering higher levels of insecurity as the sole providers for their families in ever more challenging environments. However, as a UN Environment Programme study notes, «[d]espite the gender-related risks associated with climate change and security in Nepal, women have remained largely sidelined from decision-making processes. Barriers to inclusion are especially high for female members of the Tharu ethnic minority, who face multiple levels of marginalization as women and members of a traditionally marginalized caste.»⁶¹

In Pakistan, findings from research across two provinces – Sindh and Punjab – underscore important trends in urban areas where the impacts of climate change are exacerbating levels of precarity and contributing to domestic violence and the formation of non-state armed groups. Men and women are increasingly unable to live up to their prescribed gender roles, which, in some cases, is resulting in domestic or communal violence. For instance, damages incurred from extreme flooding have been found to keep men – who are typically daily wage or contract workers – at home, resulting in loss of income and preventing them from fulfilling their prescribed roles as breadwinners.⁶² Women and men have reported that the anxieties and frustrations associated with this lack of fulfilment of their socialised responsibilities could lead to domestic violence. Women have further reported that they continue to face increased structural oppression as a result of certain aspects of climate change, such as extreme water shortages.

Many women are expected to continue to manage the household without problems, even with droughts affecting household water security in some of Pakistan's biggest cities. Women relayed experiences of tending to sick children with no resources and of disappointing their husbands or other men in the household. Women explained that they experienced physical forms of domestic violence for either failing to manage the existing water in the house, or for breaking norms around women's mobility by venturing out to secure new sources.⁶³

Women's experiences of climate change make evident the complexities of power. Relational privileges and intersectional politics extend to diverse contexts. For instance, indigenous communities can also practice unequal and exploitative gender power relations.⁶⁴ This has a bearing on how research and policy agendas can be inclusive of, and accountable to, different constituents and epistemological framings. Otherwise, various forms of marginality are reproduced and reinforced

60 UNEP (2020, June 11), *Gender, Climate & Security: Sustaining Inclusive Peace on the Frontlines of Climate Change*, revised edition, available at: <http://wedocs.unep.org/bitstream/handle/20.500.11822/32638/GCS.pdf?sequence=1>.

61 Ibid., p. 37.

62 Anwar, N.H., Mustafa, D., Sawas, A., and Malik, S. (2016), *Gender and Violence in Urban Pakistan*, IDRC Report (Ottawa: International Development Research Centre).

63 UNEP (2020), p. 36 (see note 60).

64 Sundberg, J. (2014), «Decolonizing Posthumanist Geographies», *Cultural Geographies* 21(1), 33–47; Sultana, F. (2020), «Embodied Intersectionalities of Urban Citizenship: Water, Infrastructure, and Gender in the Global South», *Annals of the American Association of Geographers*, 1–18.

at the community – and especially at the institutional – level. For instance, patriarchy extends beyond communities and is cemented in authoritative institutional bodies. An assessment of government decentralisation in South Asia found that although affirmative action brings women in greater numbers into the local government machinery, their presence does not alter inequities based on gender, caste, class and religion. In fact, male family members have leveraged women's participation in these institutions to their advantage.⁶⁵

As such, patriarchy has a pivotal impact on the degree of participation in designing and implementing effective climate change policy and leads to differences in levels of opportunity. This is particularly evident in the fact that, despite playing a major role in climate change research, most of the policy work originating from countries such as Bangladesh and Pakistan has been designed and initiated by men.

Conclusion

In this chapter, we have provided a comprehensive analysis of what climate change and urban development do to dense and heavily congested South Asian cities. We have shown how ecological processes have adversely impacted impoverished city dwellers, including those displaced from rural areas to cities due to climatic events. As we proposed, issues of climate change cannot be viewed in isolation. We have shown how weather events relate to the expansion of building and construction in South Asian cities, land rights and air pollution, and also how such connected phenomena relate to the electoral and immediate political contexts that shape lives, livelihoods and ecosystems. Our illustrations evidence how each aspect of climate change – whether extreme heat, floods, erosion or air pollution – exacerbates the pressures on ordinary city dwellers, denying them their right to the city and undermining their claims to basic and essential services such as access to water, housing and clean air.

The complexities of the impacts of a changing climate cannot be understood without looking at how gender is articulated in urban ecology. This is especially evident in the plights of impoverished men, such as those who rely on construction work, and poor women who are disproportionately impacted and systematically overlooked in policymaking processes at the global and national levels. If climate justice is truly to be achieved, these marginalised voices must be elevated and brought to the forefront. Addressing climate change calls for highlighting the experiences of the most marginalised, including poor women, by including the voices of feminist political ecologists and policymakers.

⁶⁵ Mukhopadhyay, M. (2005), «Decentralisation and Gender Equity in South Asia: An Issues Paper» (Ottawa: International Development Research Centre).

Health and mobility in climate change adaptation: The importance of well-being in a warming world

Introduction

The impacts of climate change will generate higher rates of human migration and displacement within low-income countries, as well as potentially create more international migration.¹ This climate-related migration and mobility will have significant implications for population health. There are both potential health benefits and risks for migrants concerning their health and wellbeing, with health outcomes shaped by contextual factors within migration processes and conditions within sites of settlement. This chapter focuses on potential health outcomes of climate-related mobility. It discusses empirical case studies from different geographic locations with reference to different types of climate-related mobility, including forced displacement, migration and planned relocation. In addition, it considers other under-recognised dimensions, including: the health of returning mobile populations, trapped and/or voluntarily immobile populations and people who move (for reasons unrelated to climate change) into sites of climate-related health risk.

Engaging with prevalent ideas of «adaptation» – in which migration is increasingly cast as an economic solution to climate change – the chapter argues that it is important to understand and address not only the livelihoods and economic experiences of mobile populations, but also the health of those on the move. Human health and wellbeing are increasingly being shaped by the changing global climate via threats to food security, exposure to extreme heat and the changing geographic distributions of infectious diseases. Left unabated, climate change will define the health of current and future generations, strain health systems, and undermine progress towards the 17 UN Sustainable Development Goals (SDGs) and universal health coverage.² As has been illustrated in stark fashion by the ongoing Covid-19 pandemic, it is critical to respond better to the potential health impacts on migrant

- 1 McLeman, R. (2019), «International Migration and Climate Adaptation in an Era of Hardening Borders», *Nature Climate Change* 9, 911–18.
- 2 Watts, N. et al. (2019), «The 2019 Report of The Lancet Countdown on Health and Climate Change», *The Lancet* 394(10211).

populations and home/host communities in a way that conceives of wellbeing beyond economic calculations, and in manner that acknowledges various kinds of social and gendered inequality.

This chapter calls attention to population health as a measure of adaptation effectiveness in contexts of climate-related mobility. It begins with the premise that the effectiveness of migration, as a form of adaptation to climate risk, cannot be assessed solely through livelihood diversification, economic opportunities and remittances; it is crucial to consider the broader dimensions of people's lives, including their health and wellbeing. Bearing these imperatives in mind, the chapter underscores the need for health systems to prepare for climate-related mobility, thereby ensuring that mobile populations can access effective and affordable health care services.

Migration as adaptation: A cautionary note

Since the 1990s, alarmist concerns emanating from the Global North about climate change have centred on anxiety that changing weather patterns would induce mass population displacement, produce floods of so-called climate refugees and result in geopolitical security threats. In recent years, however, the climate-migration nexus has been framed in more positive terms, whereby human migration is understood to offer an important form of climate change adaptation.³ In policy circles, governed voluntary migration is increasingly promoted as a proactive adaptation strategy that can reduce climate vulnerabilities among at-risk populations.

Indeed, migration is increasingly widely positioned as a form of «adaptation» to climate risk.⁴ The Intergovernmental Panel on Climate Change (IPCC) defines adaptation in human systems as «the process of adjustment to actual or expected climate and its effects, which seeks to moderate harm or exploit beneficial opportunities».⁵ Migration, according to this view, can increase adaptive capacity by reducing vulnerability to climate-related harms, and by allowing people to better respond to climatic hazards and other negative changes.⁶ The 2018 United Nations Global Compact for Safe, Orderly and Regular Migration⁷ – an international

- 3 Gioli, G., Hugo, G., Máñez Costa, M., and Scheffran, J. (2016), «Human Mobility, Climate Adaptation, and Development», *Migration and Development* 5(2), 165–70.
- 4 Black, R. et al. (2011), «Migration As Adaptation», *Nature* 478, 447–49; see also Foresight (Migration and Global Environmental Change) (2011), *Migration and Global Environmental Change: Future Challenges and Opportunities* (London: The Government Office for Science).
- 5 IPCC (2014), «Climate Change 2014: Synthesis Report», in Pachauri, R.K., and Meyer, L.A. (eds.), *Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Geneva: IPCC), 151 pp.
- 6 IPCC (2012), *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change*, edited by Field, C.B., Barros, V., Stocker, T.F., Qin, D., Dokken, D.J., Ebi, K.L., ...Midgley, P.M. (Cambridge: Cambridge University Press).
- 7 United Nations Global Compact for Safe, Orderly and Regular Migration, UN Document A/RES/73/195, 19 December 2018.

agreement that seeks to improve outcomes for migrants and displaced people – explicitly highlights the links between climate change, migration and adaptation. The Global Compact calls for strategies to support climate-related migration in ways that respect human rights, address humanitarian needs and ensure benefits to migrants, their families as well as the sending and receiving communities. Highlighting the need for formal channels of international labour migration to build adaptive capacity in low-income countries that are highly exposed to climate risks, the Global Compact frames mobility in terms that contrast sharply with the pessimism of climate security discourse, challenging its dominance within the policy mainstream.

The «migration as adaptation» thesis highlights the economic opportunities of human mobility, and the expectation that resources and remittances will be invested by households and communities to build resilience to climate risk. Certainly, where migrants can access labour markets (both internationally and within national borders) and diversify incomes, migration can be a successful form of adaptation to climatic hazards. For example, drawing on research focused on rainfall variability across eight countries (Ghana, Tanzania, Guatemala, Peru, Bangladesh, India, Thailand and Vietnam) Afifi et al. position human mobility as an opportunity for adaptation via livelihood diversification, whereas those who cannot move remain «trapped» in situ.⁸

However, this chapter cautions against a narrow assessment of «migration as adaptation», which focuses on livelihood diversification and the management of climate-related mobility through labour migration. Livelihood diversification is only one measure of adaptation. It is also important to consider the health outcomes of mobility and migration. In Bangladesh, for example, moving to cities has become a common coping strategy in the face of flooding. But although people who move to a peri-urban area may take advantage of new livelihood and income opportunities, they may also be exposed to health risks via their new living and working conditions. People are as likely to migrate to places of environmental and climatic vulnerability as away from them, and they may face associated health risks in new sites of residence. These points are developed in greater depth below.

Connecting climate change, human mobility and health

Since 1990, when the IPCC noted that climate change could have a significant impact on human migration, there have been many (contested) estimates and projections of the scale of climate-related mobility. There are three widely recognised types of mobility in which climatic factors play a pronounced role, either directly

8 Afifi, T., Milan, A., Etzold, B., Schraven, B., Rademacher-Schulz, C., Sakdapolrak, P., ...Warner, K. (2016), «Human Mobility in Response to Rainfall Variability: Opportunities for Migration As a Successful Adaptation Strategy in Eight Case Studies», *Migration and Development* 5(2), 254–74.

or by amplifying other drivers of human mobility: climate-induced displacement, migration and planned relocation.⁹

There is also a large body of research that considers the connections between climate change and human health. Projected impacts of climate change are expected to alter the geographic range and population burden of climate-sensitive disease (e.g. dengue) and contribute to heat-related illness and mortality due to extreme weather events, undernutrition from food insecurity and the mental health consequences resulting from exposure to climate risks.¹⁰ The World Health Organization (WHO) has estimated that between 2030 and 2050, there could be approximately 250,000 deaths annually due to climate change-related increases in heat exposure among elderly people, as well as increases in diarrheal disease, malaria, dengue, coastal flooding and childhood stunting. This is a conservative estimate.¹¹

Despite the existence of extensive research and policy discussions around the consequences of climate change for human mobility and human health, the climate change-mobility-health nexus remains under-examined. Although many rightly point out that there will be adverse health outcomes for «climate migrants», efforts to understand the complex connections between mobility and health have been restricted to generalised remarks.

The following sub-sections explore how different migratory responses to climate change may affect population health, with reference to different types of mobility, that is, forcibly displaced populations, people involved in planned relocation, migrants (including people who move away from, as well to, sites of climatic risk), and trapped and voluntarily immobile populations. They explore the opportunities for and threats to the wellbeing of people on the move, as well as host and home communities.¹²

Forced displacement

The attribution of individual extreme weather events to anthropogenic climate change is a complex and often problematic area.¹³ The public debate often refers to climate change as a «cause» of environmental disasters, whereas science views anthropogenic climate change as a «contributor» to a particular event or to trends in extreme events. For example, there has been an upward trend in flood events since 2005, with almost three times the global land area affected in 2019 compared

9 UNFCCC (2010), *Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention*, advance unedited version, draft decision -/CP.16, available at: http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf.

10 Haines, A.D., and Ebi, K. (2019), «The Imperative for Climate Action to Protect Health», *New England Journal of Medicine* 380, 263–73.

11 WHO (2014), *Quantitative Risk Assessment of the Effects of Climate Change on Selected Causes of Death, 2030s and 2050s* (Geneva: World Health Organization), available at: www.who.int/iris/handle/10665/134014.

12 McMichael, C. et al. (2012), «An Ill Wind? Climate Change, Migration and Health», *Environmental Health Perspectives* 120(5), 646–54.

13 Huggel, C. et al. (2013), «Loss and Damage Attribution», *Nature Climate Change* 3, 694–96.

with the 1986–2005 baseline; the frequency and intensity of these extreme weather events, which include wildfires, floods, storms and droughts, is shifting as a result of climate change, with associated health consequences for those who are displaced.

Large numbers of people are displaced annually by the impacts of environmental disasters, with these numbers likely to increase over time with the impacts of climate change.¹⁴ The currently observable trends include elevated incidences and frequencies of environmental disasters, increased intensity of disaster hazards contributing to the destruction of built environments and habitats, and greater resource losses. Although most forced displacements due to environmental disasters take place within countries, some people will cross international borders.¹⁵ In either case, the populations in question are, for the most part, located in/from lower-income countries and regions.

Extreme weather events tend to lead to adverse population health outcomes, particularly in contexts of the large-scale, forced displacement of people and populations. In emergencies, public health infrastructure is often limited, such that forcibly displaced persons are especially vulnerable. Mortality rates are highest in the first six months of displacement, and the provision of adequate services and infrastructure is critical in this «emergency phase».¹⁶ The health of displaced populations is determined by water and sanitation conditions, nutrition, shelter conditions, indoor air quality, exposure to disease vectors (e.g. mosquitoes, rodents), levels of immunity to vaccine-preventable diseases and access to health care services.¹⁷

Approximately three-fourths of deaths in displacement contexts are caused by infectious diseases. Common infectious diseases include diarrhoeal disease, measles, acute respiratory infections, vector-borne diseases (malaria, dengue), tuberculosis and malaria.¹⁸ For example, flooding in Mozambique in 2000 resulted in large-scale forced displacement. Among displaced populations, there was a significant increase in the incidence of diarrheal disease, with an estimated 8,000 additional cases and 447 deaths from the disease in the months following the floods and a doubling in the number of malaria cases.¹⁹ Other health challenges

14 Black, R., Nigel, W., Arnell, W., Adger, N., Thomas, D., and Geddes, A. (2012), «Migration, Im-mobility and Displacement Outcomes Following Extreme Events», *Environmental Science and Policy* 27(S1), S32–S43.

15 McAdam, J. (2016), «From the Nansen Initiative to the Platform on Disaster Displacement: Shaping International Approaches to Climate Change, Disasters and Displacement», *University of New South Wales Law Journal* 39(4), 30.

16 Shackelford, B.B. et al. (2020), «Environmental Health in Forced Displacement: A Systematic Scoping Review of the Emergency Phase», *Science of the Total Environment* 714, 136553.

17 Watson, J.M. et al. (2007), «Epidemics after Natural Disasters», *Emerging Infectious Disease* 13(1), 1–5.

18 IFRC (2007), *The Johns Hopkins and Red Cross and Red Crescent Public Health Guide in Emer-gencies*, (Geneva: International Federation of Red Cross and Red Crescent Societies).

19 Cairncross, S., and Alvarinho, M. (2006), «The Mozambique Floods of 2000: Health Impact and Response», in Few, R., and Matthies, F. (eds.), *Flood Hazards and Health: Responding to Present and Future Risks*, pp. 111–27 (London: Earthscan).

in displacement contexts include the disruption of disease surveillance and health programmes (e.g. immunisation), food insecurity and food scarcity, and interruptions in treatment regimens. Following extreme weather events, population health measures for forcibly displaced populations should include: surveillance systems for early case detection and treatment; adequate site planning; appropriate management of water and sanitation systems; adequate food supplies and storage; and strong vector control and vaccination programmes.²⁰

Where violent conflict is involved, scientific literature linking climate change and migration is particularly scarce and contested, making it important to avoid assuming simple causal relations between ecological processes and political outcomes.²¹ If climate change does not necessarily generate conflict, forced displacement and asylum-seeking, it does likely represent a risk amplifier, particularly in places of political unrest and conflict. Such instability could well result from discontent of the population about ineffective government responses to climate impacts. Where such combinations of environmental and political turmoil occur, it could be argued that climate change indirectly contributes to forced migration, with all of its associated health risks, including premature death, disability, psychological trauma, physical injury and malnutrition.

Given the complexity and multiplicity of causal factors, rather than initiatives and mechanisms to promote migrant health that are specific to climate-related displacement, it remains important to strengthen existing efforts to address population health in disaster settings.

Planned relocation

Planned relocation is a potential response to climate change risks, whereby people and communities are systematically relocated away from sites of environmental risk or from areas that are no longer inhabitable. The terms «managed retreat», «planned retreat» and «managed realignment» are also used to refer to planned relocation. Planned relocation may be necessary where areas are exposed to increasingly severe and frequent sudden-onset natural disasters (e.g. flood areas), where livelihoods are undermined (e.g. increasing drought) or where land becomes uninhabitable (e.g. due to sea-level rise). Planned relocation is a last resort for when other adaptive strategies are unavailable or exhausted.²² It can occur on the community, household or individual level and is – by definition – carried out under the authority of the state. This mobility option has received increasing attention in the context of a warming world, particularly for low-lying populations affected by sea-level rise.

20 Kouadio, I. et al. (2012), «Infectious Diseases Following Natural Disasters: Prevention and Control Measures», *Expert Review of Anti-infective Therapy* 10(1), 95–104.

21 Abel, G.J. et al. (2019), «Climate, Conflict and Forced Migration», *Global Environmental Change* 54, 239–49.

22 Farbotko, C. et al. (2020), «Relocation Planning Must Address Voluntary Immobility», *Nature Climate Change* 10, 702–04, <https://doi.org/10.1038/s41558-020-0829-6>.

To date, there are few places in the world where planned climate-related relocation has occurred. However, there are emerging cases at different levels of planning and implementation, including in Fiji, the Solomon Islands and the United States. The health dimensions of planned relocation include mental health, food security, water supply, sanitation, infectious diseases, injury and health care access. For example, Vunidogoloa is a small, low-lying Indigenous village in Fiji that moved inland in 2014, within the boundaries of their customary land, in response to coastal flooding and erosion, saltwater intrusion and the failure of seawalls. The potential health benefits of the relocation include improved access to health services and improved sanitation. Yet, the health risks include the adverse psychosocial impacts of disrupted place attachment, reduced access to fish and seafoods, and increased use of packaged and processed foods now that they are closer to a road.²³ So, Vunidogoloa's relocation appears to have brought both health benefits and risks. Few assessments of these early cases of planned climate-related relocation directly address population health issues. Although hundreds of millions of people globally have been involved in development-forced displacement and resettlement (DFDR) projects, it is not clear that these are analogous to climate-related relocation. Further research is needed to understand the health opportunities and risks of planned climate-related relocation.

What is clear is that relocating communities themselves must be central to decision-making processes: The right to self-determination is a key principle and a foundation for enabling good population health outcomes. Indeed, international, regional and domestic human rights frameworks, instruments and institutions highlight people's right to self-determination, which includes the right to decide where to live. Lessons from DFDR suggest that when planned relocation is unavoidable, the scale of population resettlement should be minimised; planning should have sufficient lead time; affected communities must be directly involved; relocation should provide for appropriate land acquisition and sufficient financing; and there should be long-term attention to restoring and improving lives and livelihoods.²⁴

Migration

People can migrate both away from and into sites of climate risk. In popular discourse, policy, practice as well as research and scholarly literature, there is a preoccupation with so-called climate migrants who move away from sites of esca-

23 McMichael, C. et al. (2019), «Planned Relocation and Everyday Agency in Low-lying Coastal Villages in Fiji», *The Geographical Journal* 185(3), 325–27.

24 Ferris, E. (2012), *Protection and Planned Relocations in the Context of Climate Change*, UNHCR, *Legal and Protection Policy Research Services*, available at: www.unhcr.org/5024d5169.pdf. See also Warner, K.T. et al. (2013), «Changing Climates, Moving People: Framing Migration, Displacement and Planned Relocation», *Policy Brief* No. 8 (Bonn: United Nations University Institute for Environment and Human Security).

lating climate risk. However, it is also important to consider the health of people and populations who move to sites of climate risk.²⁵

First, in an era of widespread human mobility, people may move into areas of high environmental and climatic risk. For example, people could migrate to low-lying urban areas in mega-deltas that are affected by sea-level rise and storm surges (e.g. climate-vulnerable peri-urban areas in the Indian Bengal Delta),²⁶ or water-insecure areas in the urban peripheries of expanding cities (e.g. urban populations are likely to double in South Asia and sub-Saharan Africa by 2040, with many of the fastest-growing cities being located in areas of limited water availability).²⁷

Figure 1: Migration to and from sites of climate change risk



Source: Author's own; own chart.

Consequently, although climate risks do not drive these migration flows, these migrants may face elevated climate-related health threats.²⁸ Emerging research has documented health risks for migrants who move to sites of climate vulnerability. In the Pacific Island countries, for example, people moving into urban-poor areas may be exposed to climate-related threats to health in sites of settlement, including elevated exposure to vector-borne diseases such as dengue, and inadequate water supply.²⁹

The agricultural and construction sectors involve increasing numbers of migrant workers globally and require better management of heat-related health risks. For example, during the 2015 heat wave in Pakistan, which resulted in more

25 McMichael, C. (2020), «Human Mobility, Climate Change, and Health: Unpacking the Connections», *Lancet Planetary Health* 4, e217–18.

26 DECCMA (2019), *Climate Change, Migration and Adaptation in Deltas: Key Findings from the DECCMA Project* (Southampton, UK: University of Southampton).

27 Kookana, R.S., Drechsel, S., Jamwal, P., and Vanderzalm, J. (2020), «Urbanisation and Emerging Economies: Issues and Potential Solutions for Water and Food Security», *Science of the Total Environment* 732, <https://doi.org/10.1016/j.scitotenv.2020.139057>.

28 Foresight (2011), *Migration and Global Environmental Change* (see note 4)

29 Campbell, J., and Warrick, O. (2014), *Climate Change and Migration Issues in the Pacific* (Fiji: United Nations Economic and Social Commission for Asia and the Pacific).

than 1,000 deaths in Karachi, outdoor migrant workers were identified as being at risk of heat stroke and heat-related mortality.³⁰ Similarly, among Nepali migrant workers employed in construction in Qatar (2009–2017), migrants working in high temperatures (greater than 31°C) experienced morbidity and mortality due to heat stroke and cardiovascular disease linked to extreme heat.³¹ So, climate change can amplify risks to health among migrant populations (as well as host communities).

Second, migration can be an adaptive strategy to reduce vulnerability to climate change risks. Many countries and regions are preoccupied with the possibility that climate change will lead to increases in cross-border migration (and these are often the countries that are largely responsible for climate change), yet the likelihood and magnitude of such migration remains unclear.³² Most analyses of climate-related migration suggest that international migration to high-income countries will be minimal compared to mobility within climate-vulnerable countries and regions in poorer regions and countries.³³ It is probable that climate-related migration will follow existing migration pathways, particularly internal migration within the borders of a country. Where climate change contributes to migration, health outcomes among migrating populations will be shaped significantly by the nature, location and context of migration. Health determinants will include health services in sites of transit and settlement; policy and legal contexts; resources and capacities of migrant populations; and living and working conditions in sites of settlement.

In some contexts, the health of populations that migrate away from sites of climatic threats may improve as health benefits accrue – for example, via increased economic and educational opportunities, better nutrition and improved access to health services. Studies from Senegal have found that farmers in rain-dependent zones move to better irrigated areas to farm during the dry season, and this mobility enables the continuity of familiar livelihoods and improved food security.³⁴ However, the conditions surrounding migration processes can contribute to health vulnerabilities. In India, drought-affected farmers who migrate to urban areas were found to be at increased risk of contracting HIV and other sexually transmitted infectious diseases.³⁵ A study in Bangladesh found that people who are displaced by climate-related disaster and who move into urban slums experience adverse

30 Dearden, L. (2015), «Pakistan Heatwave: Death Toll Tops 400 I Karachi As Morgues Overflow and Power Cuts Worsen Crisis», *The Independent*, available at: www.independent.co.uk/news/world/asia/pakistan-heatwave-death-toll-tops-400-in-karachi-as-morgues-overflow-and-power-cuts-worsen-crisis-10339798.html.

31 Pradhan, B. et al. (2019), «Heat Stress Impacts on Cardiac Mortality in Nepali Migrant Workers in Qatar», *Cardiology* 143(1), 37–48.

32 Missirian, A., and Schlenker, W. (2017), «Asylum Applications Respond to Temperature Fluctuations», *Science* 358, 1610–14.

33 Foresight (2011), *Migration and Global Environmental Change* (see note 4).

34 Zickgraf, C. (2019), «Climate Change and Migration Crisis in Africa», in Menjivar, C. et al (eds.), *The Oxford Handbook of Migration Crises*, pp. 347–66 (New York, NY: Oxford University Press).

35 Anupama, G.V. et al (2016), *Seasonal Migration and Moving Out of Poverty in Rural India. Insights from Statistical Analysis*, p. 19, available at: <https://ageconsearch.umn.edu/record/258850>.

health outcomes associated with unhygienic and overcrowded living conditions, undernutrition and inadequate water and sanitation.³⁶ So there are concerns that migration will lead to substantial risks to population health due to poor living conditions, inadequate water and sanitation, underemployment, income instability and increased pressure on infrastructure. There is, as yet, no research that explicitly examines the health consequences for people who cross international borders and for which climate risks are considered a contributing driver of mobility decisions.

Trapped populations and voluntary immobility

Despite the concern with climate-related mobility, there is growing acknowledgement of the risks and realities of population immobility, meaning those who are unable or unwilling to migrate.³⁷ There are many people and populations who remain in sites of climate risk: This includes «trapped» populations who lack the resources, assets and networks that enable migration away from sites of climate risk; it also includes voluntarily immobile populations who choose to remain in their homes and communities for reasons of attachment to a place and socio-cultural continuity. This challenges the widely accepted narrative that, in a warming world, the poor and vulnerable are likely to migrate.

There is a limited amount of empirical research that has considered the health profiles and experiences of immobile populations. It seems likely that immobile populations living in sites of climate vulnerability may experience adverse health consequences due to changes in water and food security, disease ecology, flooding and saltwater intrusion, and the psychosocial impacts of disrupted livelihoods.

Notably, a recent landmark ruling highlighted the health risks experienced by immobile or «trapped» populations in the low-lying Pacific nation of Kiribati.³⁸ The ruling relates to the case of Ioane Teitiota from Kiribati, who applied for protection in New Zealand in 2013, claiming he and his family's lives were at risk due to climate change impacts. Teitiota's case referred to his experience of health-related climate risks, including lack of fresh water due to loss of rainfall and saltwater contamination of freshwater lenses and aquifers, food insecurity, overcrowding on Tarawa and flood-risk. New Zealand courts and the UN Human Rights Committee rejected Teitiota's protection application on the basis that there was not sufficient risk to his or his family's lives at the time in question, and because Kiribati has the capacity to adapt to climate threats. However, the Committee accepted that Teitiota and his family are being exposed to hazards related to sea-level rise, with associated risks to health and wellbeing.

36 Rahaman, M.A. et al. (2018), «Health Disorder of Climate Migrants in Khulna City: An Urban Slum Perspective», *International Migration* 56(5), 42–55.

37 Foresight (2011), *Migration and Global Environmental Change* (see note 4).

38 OHCHR (2020), Views Adopted by the Committee under Article 5 (4) of the Optional Protocol, Concerning Communication No. 2728/2016 Communication submitted by: Ioane Teitiota (represented by counsel, Michael J. Kidd), available at: https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolNo=CCPR%2fC%2f127%2fD%2f2728%2f2016&Lang=en.

In north-west Alaska, climate change impacts include delayed freeze-up, decreasing levels of sea ice, storm surges, coastal erosion and thawing permafrost. The majority of residents in the region are Indigenous Inupiat people. Although the health of Indigenous people in the region has improved in the past 50 years, they are vulnerable to climate change-related health threats: for example, weather-related injuries, respiratory infections and declines in the amounts of traditional foods (e.g. caribou, moose).³⁹ The state of Alaska and federal government agencies are working with some communities (e.g. Kivalina, Newtok and Shishmaref) to plan organised relocations, yet for now people are unable to move due to lack of resources, funding and broader political will. In Shishmaref, Alaska, the lack of political will and resources to support their relocation has been found to cause significant stress among residents.⁴⁰ These high-profile cases draw attention to the residents of places that are vulnerable to climate impacts, and where people are exposed to climate-related health threats. Despite that, migration and relocation pathways – whether national or international – are not (yet) readily available.

However, not all immobile populations are «trapped». People have connections to a place and often prefer to adjust and adapt their local socio-economic systems and ways of living rather than move. Indeed, some studies have highlighted the strong preference for in situ adaptation rather than migration. For example, a study of four low-lying island communities in the Philippines that experience flooding during normal high tides found that island residents generally prefer in situ adaptation strategies rather than migration and relocation to the mainland. Adaptive strategies include stilted housing and raised floors.⁴¹ Where people choose to remain in sites of climate risk, it is important to understand and address potential threats to health and wellbeing, including injury and fatalities related to severe weather events, food and water insecurity, changing infectious disease patterns and mental health consequences.⁴² It is also worth recognising the potential benefits to psychosocial wellbeing among those who might choose to remain in sites of climate risk. These benefits might be generated through attachment to a place, continuity of culture and access to local (even if altered) food sources, including produce from subsistence farming and seafood (for those living in coastal areas).

39 Parkinson, A., and Evengård, B. (2015), «Climate Change and Health in the Arctic», in Butler, C.D. (ed.), *Climate Change and Global Health*, pp. 206–16 (Wallingford, UK: CABI Publishing).
Marino, E. (2012), «The Long History of Environmental Migration: Assessing Vulnerability Construction and Obstacles to Successful Relocation in Shishmaref, Alaska», *Global Environmental Change* 22, 374–81.

40 Wolsko, C., and Marino, E. (2016), «Disasters, Migrations, and the Unintended Consequences of Urbanization: What's the Harm in Getting Out of Harm's Way?», *Population and Environment* 37(4), 411–28.

41 Laurice Jameró, M., et al. (2017), «Small-island Communities in the Philippines Prefer Local Measures to Relocation in Response to Sea-level Rise», *Nature Climate Change* 7, 581–86.

42 McMichael, A.J. (2013), «Globalization, Climate Change and Human Health», *NEJM* 368, 1335–43.

Discussion

This chapter began by arguing that the human health consequences of climate change impacts and adaptive strategies are an important measure of risk and adaptation. As such, good population health is an important indicator of the success of mobility as an adaptive strategy; conversely, poor health outcomes among people on the move indicate an amplification of risk and adverse outcomes.⁴³

As discussed above, human mobility that is related to climate change encompasses diverse scenarios. There is a spectrum of human mobility – from forced displacement to voluntary mobility. There are clear distinctions between different types of climate-related mobility as well as associated risks and opportunities. The scale and nature of population health outcomes depend not just on the biophysical risks of a changing climate, but also on the sensitivity and capacity of people, communities and health systems to prepare for and manage population health risks. Indeed, there are also significant differences within different «types» of climate-related mobility. Access to mobility is often experienced unequally along lines of gender, ethnicity, race, religion, age and social class. Gender, for example, influences climate-related migration patterns. Gender can shape who migrates, who is left behind, who is able to return and rebuild their lives, as well as the nature of mobility experiences. Among those who move, the vulnerabilities and priorities of migrants vary according to gender, including due to the different levels of responsibility, access to information, resources, education, physical safety and job opportunities available to men and women.

There are concerns that women are disproportionately burdened with risks and vulnerabilities in contexts of climate-related mobility.⁴⁴ A small number of empirical studies have examined the linkages between climate change, migration and gender. Findings diverge substantially, depending on the context. A study conducted in rural Mexico where communities are engaged in fruit and vegetable processing found that altered precipitation patterns and declines in water availability led to the out-migration of many men. This increased the workloads of women, as they had both family care responsibilities as well as ongoing work in the food processing industry.⁴⁵ Yet, others posit that male out-migration related to climate change can increase autonomy and decision-making power for female members of the family.⁴⁶

43 Schwerdtle et al. (2020), «Health and Migration in the Context of a Changing Climate: A Systematic Literature Assessment», *Environmental Research Letters*, <https://doi.org/10.1088/1748-9326/ab9ece>.

44 Demetriades, J., and Esplen, E. (2010), «The Gender Dimensions of Poverty and Climate Change Adaptation», in Mearns R., and Norton, A. (eds.), *Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World* (New York, NY: The World Bank).

45 Buechler, S. (2009), «Gender, Water, and Climate Change in Sonora, Mexico: Implications for Policies and Programmes on Agricultural Income-generation», *Gender Dev.* 17, 51–66.

46 Brown, O. (2008), «Climate Change and Forced Migration: Observations, Projections and Implications», background paper for the *Human Development Report 2007/08* (Geneva: United Nations Development Programme).

So, there are substantial differences and inequities in the nature of, access to and experience of mobility. Accordingly, health outcomes will diverge within mobile populations, including along lines of gender, ethnicity, age, disability and other characteristics. Given that the relationships between climate change, human mobility and health are highly varied, there is no one-size-fits-all policy response that will ensure the health of migrating populations.

Nonetheless, mitigation would decrease the scale of health risks for mobile and trapped populations, particularly in the medium to long term. Of utmost importance is the international political will and cooperation to reduce the rate of climate change by reducing greenhouse gas emissions. Climate change science predicts a range of possible futures that depend on the degree of mitigation action in the face of a warming world. Mitigation implemented now will determine these eventualities. Ultimately, this is a choice between two pathways: «business as usual» or one that puts our world on a path to remain well below 2° C.⁴⁷

Further, health systems have a critical contribution to make in mediating relationships between climate change, population health and mobility.⁴⁸ Universal health coverage is a critical population health challenge, and there are widespread calls for migrant-sensitive health systems. In 2015 the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development and its 17 SDGs. Embedded in the framework are goals and targets promoting action on migrant health. An explicit SDG target (10.7) is to facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies. In addition, SDG target 3.8 on universal health coverage calls for the establishment of reliable and accessible health services for all, a target that presumably encompasses migrants and mobile people.⁴⁹ Additionally, the UN Global Compacts on migration and refugees are two landmark agreements that ensure further commitments by international bodies and nations to provide high-quality health care to these population groups.

It is not clear, however, whether these policy prescriptions adequately encompass the diversity of climate-related mobility, including, for example, short-distance relocations in response to sea-level rise or circular rural-urban mobility in contexts of drought. Arguably, there is a neoliberal overtone of seeking to manage climate-related migration through labour migration. Such policies are oriented towards permanent migrants and those travelling longer distances who move from one location to another with the aim of settling and improving their social and economic status. Better consideration of the ways that health systems can respond to short-term, short-distance and circular forms of mobility is required.

47 Watts, N., et al. (2019), «The 2019 Report of The Lancet Countdown on Health and Climate Change», *The Lancet*, [https://doi.org/10.1016/S0140-6736\(19\)32596-6](https://doi.org/10.1016/S0140-6736(19)32596-6).

48 Ridde, V. et al. (2019), «Climate Change, Migration and Health Systems Resilience: Need for Interdisciplinary Research», *F1000 Research* 8(22).

49 Villa, S., and Raviglione, M.C. (2019), «Migrants' Health: Building Migrant-sensitive Health Systems», *Journal of Public Health Research* 8(1), 1592.



Climate policies and initiatives are required that allow adaptation to be done *by* rather than *to* people, giving them increased control over climate adaptation decisions, including decisions about whether to move or remain. Significant policy improvements are required in many related areas that will have benefits for the health of mobile populations, including: climate-sensitive policies that build resilience and reduce the need to migrate away from adversely affected areas; funding mechanisms that better and more equitably facilitate climate change adaptation; and expanded and improved development assistance mechanisms.⁵⁰

Where there are people who are displaced or have relocated or migrated, it is important to support and enhance good health, regardless of the extent to which mobility is attributable to climate impacts. Some examples include the need to enhance infectious disease surveillance; improve specific vector-control measures (such as for dengue and malaria); adapt building codes to address rising temperatures; ensure that urban planning reduces the risk of flooding; improve air quality; ensure effective water and sanitation; and increase awareness among health care workers about climate-sensitive health risks. Conducting vulnerability assessments and identifying adaptation options at the local levels can be the first steps in identifying the challenges and opportunities for addressing climate-related health risks,

50 Hugo, G., and Bardsley, D. (2014), «Migration and Environmental Change in Asia», in Piguet, E., and Laczo, F. (eds.), *People on the Move in a Changing Climate: The Regional Impact of Environmental Change on Migration* (Dordrecht: Springer).

including among mobile populations.⁵¹ Because the world will continue to warm for years and centuries (even millennia), flexible and responsive population health and adaptation approaches are needed to address evolving health risks.

Approaches are needed that enhance the capacities of society and health systems to address migrant health in general, that protect the rights of migrants, and that can deal with the uncertainties and complexities of human mobility in a warming world.⁵² Both migrant-inclusive and climate-resilient health systems will support the broader sustainable development agenda that seeks to leave no one behind, including populations engaged in or affected by climate-related mobility. This is a matter of justice – climate justice and health justice – given that the human health impacts of climate-related mobility will not be borne equally: populations (including mobile populations) in lower-resource settings are often the most vulnerable to climate risks, and yet they are the least responsible for climate change.⁵³

Ultimately, migration and mobility can only be considered an effective adaptive response to climate risk where good health is sustained, promoted and achieved. Pervasive climate-related threats to human health require decisive actions from health professionals and governments to protect the health of current and future generations, including the health of mobile populations and those who choose to remain or are trapped in sites of climate risk.

51 Haines, A.D., and Ebi, K. (2019), «The Imperative for Climate Action to Protect Health», *New England Journal of Medicine* 380, 263–73.

52 Wardekker, J. et al. (2012), «Health Risks of Climate Change: An Assessment of Uncertainties and Its Implications for Adaptation Policies», *Environmental Health* 11, 67.

53 Patrick, M., Grewal, G., Chelagat, W., and Shannon, G. (2020), «Planetary Health Justice: Feminist Approaches to Building in Rural Kenya», *Buildings and Cities* 1(1), 308–24, <http://doi.org/10.5334/bc.18>.

Can migration from West Africa be prevented by climate-resilient agriculture?

LESSONS IN IM/MOBILITY FROM RURAL GAMBIA

Media and policy discourses in and beyond Europe are fraught with warnings that climate change will cause mass migration. More often than not, however, these warnings feed a self-referential narrative rather than evidence-based analysis. They add to a myth of invasion that, especially in the Global North, calls for tighter controls and further restrictions on foreign immigration.¹ These discourses are eventually accompanied by proactive measures to manage actual or potential climate refugees and migrants before they arrive at their destinations, or even before they depart from their places of residence.

Europe's current approach to migration from Africa provides a case in point. Europe has not only heavily restricted legal migratory channels for people from all African countries (except Mauritius) wishing to travel to the continent; it has also sought to avert unauthorised migration by going to the very roots and routes of flows.² It has sought to recruit the governments in North Africa and sub-Saharan Africa to do the dirty work of restricting and controlling African migrants heading towards Europe. In response to the so-called refugee crisis, a more ambitious agenda on migration from Africa has gained ground to address the «root causes» of unauthorised migration in countries of origin. Development and capacity-building are being pursued to reinforce «resilience» to desertification, droughts, floods, salinisation and other ecological factors that allegedly push Africans to venture through deserts and seas to reach Europe. The underlying idea is that these measures will keep people in their places of origin.

In this contribution, I focus on The Gambia as an exemplary case of how climate change feeds into misguided approaches to migration governance. Despite its small size and population, The Gambia has been one of the main suppliers of

- 1 Trombetta, M.J. (2014), «Linking Climate-induced Migration and Security within the EU: Insights from the Securitization Debate», *Critical Studies on Security* 2(2), 131–47; Boas, I. et al. (2019), «Climate Migration Myths», *Nature Climate Change* 9(12), 901–03.
- 2 Gaibazzi, P., Bellagamba, A., and Dünnwald, S. (eds.) (2017), *Eurafrican Borders and Migration Management: Political Cultures, Contested Spaces, and Ordinary Lives* (Basingstoke: Palgrave Macmillan).

unauthorised migrants to Europe during the so-called refugee crisis (2013–2017).³ A growing industry of programmes being funded by the European Union (EU) is targeting Gambian youths as «potential irregular migrants» to change their minds and take advantage of local opportunities instead. Mitigating and adapting to climate change is an important objective of such programmes, particularly in conjunction with improving a decaying agricultural sector to stem a purported rural exodus.

I propose to challenge the premises of this development discourse on migration and climate change. In the first place, I argue that climate change and environmental degradation might induce non-migration or «permanence» as much as it might fuel emigration. Secondly, those framing development as a means to contain migration by keeping people in place often profoundly misunderstand how those who dwell in degraded environments conceive of sedentariness and mobility. I draw my conclusions from ethnographic research in Sabi,⁴ a village in Eastern Gambia that shares with so many rural communities in the Western Sahel a history of erratic, worsening ecology and a present that is dominated by agrarian decline and emigration. Although Sabi farmers have adapted to the environmental degradation by migrating to all corners of the world, including to Europe, more have stayed on the land than the actual conditions of agricultural production might lead one to think. These are not conservative peasants who stick to their sedentary tradition. Migration is part of the agricultural economy and figures prominently in the life-cycles of those who stay. Migrating and staying put are intimately related phenomena. Just as cultivating crops in a field can be a way to sustain migrants and prepare for travel at a later stage, migration (e.g. through remittances) enables people to stay on the land and come to terms with environmental and other challenges. Understanding not only the economic and ecological aspects, but also the socio-cultural relationship that binds migration and permanence leads us away from the discourse on development as a means of migration control and containment.⁵

Climate change

August 2019, Sabi village. I walk into the chief's compound with two friends, and I begin shaking hands and exchanging lengthy greetings with old and new acquaintances. It has been five years since I have last visited the village. We are offered a seat under the imposing mango tree dominating the entrance of the house.

3 Conrad Suso, C.T. (2019), «Backway or Bust: Causes and Consequences of Gambian Irregular Migration», *The Journal of Modern African Studies* 57(1), 111–35.

4 Research for this article was supported by: MEBAO (Ethnological Mission in Benin and West Africa); University of Milano-Bicocca; Germany's Federal Ministry for Education and Research (funding code 01UG0713); and collaboration (2019) with ActionAid Italy on return migration and repatriation programmes to the Gambia. The author is responsible for the content of this publication.

5 Landau, L.B. (2019), «A Chronotope of Containment Development: Europe's Migrant Crisis and Africa's Reterritorialisation», *Antipode* 51(1), 169–86.

«It's hot, eh?» Sherif smiles as I wipe sweat from my brow. It is indeed an unusually hot day for the time of year. It is the height of the rainy season, when frequent showers and light rains should keep the air cool. The last rains fell almost three weeks ago. «These days the rain is no longer falling normally. If it goes on like this,» Sherif warns, «this year's farming is spoiled!» In Sherif's family field, the stalks of millet would normally reach hip level; today, they are barely knee high. In his wife's field, groundnuts are still fine, but the fear is that the hot sun might dry up the soil and burn the germinating plants. Another man sitting together with Sherif on the platform reports that, in his fields, crops are beginning to wilt. And that's not the worst: The seeds of his neighbour, who planted late, have not even managed to sprout and pierce the soil baked by the scorching sun.

Gambian farmers have historically grappled with erratic weather conditions.⁶ Mini-droughts in the rainy season have become recurrent since the end of the 1960s, when major droughts hit the Sahel.⁷ Yet, rainfalls have on average become less abundant and more irregular in what is largely rainfed agriculture in this part of the country. Farmers in the lower valley closer to the Gambia River rely on swampland and cultivate paddy rice, but they have in turn been coping with the intrusion of sea water in the Gambia River and are hit by recurrent flooding.

As Sherif and others clearly pointed out, Gambians are poignantly aware of climate change – or «weather change» – and its impact on agriculture. The Upper River region, where Sabi is located, has a glorious agricultural past. It had been known as one of the main exporting regions of the so-called Peanut Basin. Households such as Musa's and small estates rather than large plantations were behind this relative economic success.⁸ From the late 1960s onwards, just as the newly independent Gambia (1965) was savouring the possibility of thriving on an expanding commercial agricultural sector, the climate conditions of cultivation became challenging. If the 1970s and 1980s witnessed agricultural experimentation – with farmers adopting new technologies, methods and commercial crops such as cotton and horticulture – the general trend in The Gambia since then has been to gradually reduce involvement in commercial production in favour of subsistence agriculture.⁹ The millets Musa planted were a way to adapt to the more unpredictable and less abundant rainfalls in recent years.

Climate is one of several interrelated factors of environmental and agrarian decline over the past half century. Ongoing since the mid to late 19th century, the expansion of the agricultural frontier along the Gambia River valley has damaged

6 Swindell, K., and Jeng, A. (2006), *Migrants, Credit and Climate: The Gambian Groundnut Trade, 1834–1934* (Leiden and Boston: Brill).

7 Webb Jr., J.L.A. (1992), «Ecological and Economic Change Along the Middle Reaches of the Gambia River, 1945–1985», *African Affairs* 91(365), 543–65.

8 Ibid.

9 Gajigo, O., and Saine, A. (2011), «The Effects of Government Policies on Cereal Consumption Pattern Change in the Gambia», *Review of African Political Economy* 38(130), 517–36; Loum, A., and Fogarassy, C. (2015), «The Effects of Climate Change on Cereals Yield of Production and Food Security in Gambia», *Applied Studies in Agribusiness and Commerce* 9(4), 83–92.

the ecology through deforestation, soil erosion and reduced fallow periods, among other factors. Although attempts were made to mitigate and adapt to the degrading environment, economic and political factors have created further obstacles. In the 1980s, international donors demanded structural adjustments. As was the case in many other countries in the Global South, neoliberal reforms aimed to roll back the purportedly inefficient, overgrown public sector and make room for the free market. As a consequence, Gambian farmers received less support from the state to buy fertilisers and seeds, but they were now competing in a supposedly global free market (in which their competition included heavily subsidised agriculture, above all US peanut farmers¹⁰). The reorganisation and privatisation of parastatal companies tasked with collecting peanuts and other produce has been a constant source of frustration and uncertainty for Gambians. Next to the weather, a common topic of conversation among Sabi farmers in the summer of 2019 was the welcome decision by the government to subsidise fertiliser, even if its distribution occurred late and was allegedly marred by embezzlement. Although agriculture employs around 60 per cent of the population, unsuccessful agrarian policy and bias favouring urban development have led many Gambians living in the countryside to feel abandoned.

Migration

Few households in Sabi subsist on agriculture alone. To make up for the meagre yields, Sabinko have increasingly relied on off-farm activities. Chief among these is intensifying migration to urban areas along the Atlantic coast and abroad. I say «intensify» because migration is a long-standing phenomenon in this region, particularly in Soninke-speaking villages such as Sabi in the stretch from the Upper Guinea Coast to the Sahel-Sahara frontier.¹¹ Sabi has expatriate communities in almost every continent. Whereas women are mobile, men have dominated economic migration. Historically, men have travelled for work or trade during the dry months that followed the agricultural season; spending several seasons away from home has been common. Seasonal labour migration to the cities, which remains an important phenomenon today, has built on the networks and patterns forged by these movements. Similarly, recent trends of intra- and inter-continental migration have grown out of existing practices.¹² Parallel to these seasonal and international migrations are flows to West and Central Africa triggered by a boom in commercial opportunities during the mid-1950s. Since then, migration has become deeply entrenched in rural livelihoods, with flows to European and North American labour markets progressively segmented from regional pathways of mobility.

10 Sallah, T.M. (1990), «Economics and Politics in the Gambia», *Journal of Modern African Studies* 28(4), 621–48.

11 Manchuelle, F. (1997), *Willing Migrants: Soninke Labor Diasporas, 1848–1960* (Athens and London: Ohio University Press and James Currey).

12 Gaibazzi, P. (2015), *Bush Bound: Young Men and Rural Permanence in Migrant West Africa* (Oxford and New York, NY: Berghahn).

By the 1980s, all socio-economic and ethnic groups of Gambian society were engaged in migration, as has occurred in the rest of West Africa. With youth unemployment rampant in the aforementioned wider context of economic and ecological decline, having one or more householders working or trading abroad became a common strategy to offset uncertain household budgets. The worsening political situation during Yahya Jammeh's authoritarian rule between 1994 and 2016 has further contributed to the outflow of critics and ordinary citizens deprived of civil liberties.¹³ Europe and North America have been preferred destinations for students, workers and refugees, but Africa, the Middle East and Asia remain popular among Gambian entrepreneurs and students (particularly those choosing an Islamic education).

As in so many other West African communities, young men in Sabi grow up in a milieu in which friends and relatives are dispersed around the world. Their presence is nonetheless visible in the food supplies they buy, the houses they build, the school fees and medical bills they pay, the goods and money they send home, the development projects they finance collectively through hometown associations in the diaspora, and so on. It has thus become normal that young men cultivate the idea that they too must migrate in order to ensure the survival and prosperity of their families, and thus qualify as mature, responsible sons and breadwinners.¹⁴ Once away from home, they will earn money to pay bride wealth and marry, to raise children, and eventually build houses and buy property in the city. In addition to money, travelling means visiting new places and exploring foreign cultures, and returning with experience and knowledge. In sum, travelling is an integral part of the life course of men, and an avenue through which they can attain and perform respectable forms of masculinity. In Sabi, women also migrate, often after their husbands send for them. Across the country and the region, there has been nonetheless a growing feminisation of migration flows involving unmarried women.¹⁵

Although migration from The Gambia is highly diversified in modalities and geographical destinations, the so-called backway has recently hijacked public and policy discourse on migration. A popular name for unauthorised migration to Europe via North Africa and the Mediterranean, the backway has effectively become a significant phenomenon. Between 2013 and 2017, arrivals from The Gambia in Italy via Libya increased fivefold, which has made international headlines. Aside from the media, the backway has been a concern for families and communities, many of which have lost members along the route. By 2019, the backway seemed to have faded. Yahya Jammeh's defeat through democratic elections in December 2016, and his departure into exile in January 2017 after having caused a political stalemate, has galvanised the citizenry's hopes and seems to have reduced pressure

13 Hultin, N. et al. (2017), «Autocracy, Migration, and the Gambia's 'Unprecedented' 2016 Election», *African Affairs* 116(463), 321–40.

14 Timera, M. (2001), «Les Migrations Des Jeunes Sahéliens: Affirmation De Soi Et Emancipation», *Autrepart* 18, 37–49.

15 See, for example, Rosander, E.E. (2015), *In Pursuit of Paradise: Senegalese Women, Muridism and Migration* (Uppsala: The Nordic Africa Institute).

on people to leave the country.¹⁶ Another factor has been disruptions along the route that was created more or less directly by Europe's pressure on governments in Libya and Niger to stop migrants.¹⁷ The dangers of the route have been broadcast by the thousands of Gambians who have returned empty-handed from transit countries in recent years. Between mid-2017 and mid-2019, more than 4,000 were brought back by the International Organization for Migration (IOM) alone through a scheme financed by the EU.¹⁸ Upon return, they would be channelled to one of the many programmes addressing the plight of disenfranchised youths at risk of leaving for the backway. Such programmes have increasingly targeted youths from impoverished and environmentally degraded rural areas, and eventually reached peripheral communities such as Sabi.

Stemming the rural exodus through climate-resilient agriculture

Rather than the weather and agriculture, I have come to see Sherif to talk about migration. But there is no need to change the topic of conversation, as migration is directly related to what we have been discussing so far. «This backway problem, you know, is all due to hardship,» says Sherif. «If you cannot feed yourself and your family, what will you do?» The question is rhetorical; the answer obvious.

Sherif is brother and proxy to the chief, and he oversees the administration of the village.¹⁹ I ask him to tell me about recent programmes that are supposed to address the hardships he refers to. Less than two months ago, he says, a meeting was held in Sabi upon request of representatives of the Youth Centre and the newly created Migration Information Centre in Basse Santa Su, the regional capital. Representatives of the two institutions brought information about current initiatives to counter the backway and discuss future collaborations with the villagers on this subject. I gather from Sherif that this entails mobilising village youths to organise and participate in events that raise awareness about the dangers of the backway and redress distorted images of Eldorado Europe. But it also means supporting and recruiting for training programmes to teach youths professional skills and increase their employability, and eventually to create their own businesses thanks to other schemes providing small grants and micro-credit lines for starting up an enterprise.

These schemes constitute the core of a large project called «Building a future – Make it in The Gambia», which began at around the time of the meeting in Sabi. Endowed with €23 million, it is the main project financed through the Emergency

¹⁶ However, in 2019 dissatisfaction with the transitional government was rampant again.

¹⁷ Raineri, L. (2018), «Human Smuggling across Niger: State-sponsored Protection Rackets and Contradictory Security Imperatives», *The Journal of Modern African Studies* 56(1), 63–86.

¹⁸ Action Aid (2019), *Willing to Go Back Home or Forced to Return? The Centrality of Repatriation in the Migration Agenda and the Challenges Faced by the Returnees in the Gambia* (Milan: Action Aid Italy), available at: www.actionaid.it/app/uploads/2019/12/Rimpatri-e-Gambia_ENG2.pdf (accessed 10 April 2020); Zanker, F., and Altrogge, J. (2019), «The Political Influence of Return: From Diaspora to Libyan Transit Returnees», *International Migration* 57(4), 167–80.

¹⁹ The village chief (*alkalo*) is a customary authority that has been included into the state.

Trust Fund for Africa (EUTF), which was launched in 2015 at the EU-Africa Summit in Valletta, Malta, in the heat of the 2015 «refugee crisis». The EUTF has become a major tool to addressing the «root causes» of irregular migration from Africa to Europe. The EUTF funds two other projects in The Gambia. One is the Youth Empowerment Project, which has effectively been integrated into the «Building a future» project to focus on socio-economic opportunities and resilience. The other is the previously mentioned EU-IOM partnership pertaining to repatriation, which has a broader goal of strengthening migration management.²⁰ This latter aspect included the creation of three Migration Information Centres in The Gambia in collaboration with the National Youth Council, which is the governmental body that runs youth centres in Basse and other cities throughout The Gambia. The meeting in Sabi was the result of this development. I would later learn from one of the officers that Sabi was selected as one of the 10 villages in the Upper River to run pilot projects on community-based migration management. In addition to mobilising Sabi authorities and youths to become involved in existing programmes for individuals, this would ideally promote socio-economic development and resilience at the community level.

Sherif welcomes the idea of Sabi youths learning a profession, but he also wishes for greater support for agriculture. For him, Sabi farmers need better tools and fertilisers to cope with an impoverished soil as well as irrigation to offset erratic rains. He reckons that «if young people can see that they get something out of farming, they will automatically focus their minds on it.»

Agriculture and climate change feature centrally in EUTF projects in The Gambia. Climate change is a «cross-cutting issue», and it is identified as a main driver of migration. Accordingly, «climate change mitigation» and «resilience to climate change» are identified as «Important Objectives» within the markers system of the Rio Conventions. Climate change is enveloped into a broader plan to boost agri-business value chains, which should achieve «increased employment of youth and the most vulnerable with an emphasis on the green and climate-resilient economy».²¹ This would include the use of renewable energies, climate-resistant crops, sustainable production techniques and irrigation schemes.

If on the surface it appears that the development solutions embedded in Europe's externalised migration management in Africa are on target, there are reasons to doubt the rhetoric, objectives and outcomes.²² What I want to highlight here is that, behind an apparent convergence between local and transnational governance on causes and solutions of «irregular migration» to Europe, there is a fundamentally divergent understanding among actors of how youth, migration and agriculture relate.

²⁰ Interview with Mohamed Ceesay, Basse Youth Centre, 22 August 2019.

²¹ EU Trust Fund (2018), «Action Document for «Building a future – Make it in The Gambia»».

²² For a critique from within the development sector, see CONCORD and CINI (2018), *Partnership or Conditionality? Monitoring the Migration Compacts and EU Trust Fund for Africa* (Brussels: CONCORD).

Musa loading bundles of millet on a donkey cart. Sabi, Gambia, 2014





Agrarian pedagogy vs the culture of migration?

Almost thirty years ago, Lisa Malkki found a «sedentarist metaphysics» in policy, public and social scientific discourse, especially on refugees and migrants.²³ This means that people are thought to be naturally rooted in a place and that movement is abnormal, a disruption of their settled lives. Today, international migration governance partly accepts migration as a normal condition and a positive resource. In The Gambia, the policy discourse values diaspora engagement and the circulation of highly skilled migrants. In contrast, the approach to «irregular migration», which is mainly concerned with lower-skilled youths, is largely driven by a sedentarist bias.²⁴ It typically sees climate change and other factors as disrupting people's local livelihoods, forcing them to move. Development would then keep them in their place.²⁵

Yet, mobility has been a normal and routine activity for Sabi men. Undoubtedly, times of crisis exacerbate migration. Sherif views hardship and environmental challenges as push factors. For him, local employment and agrarian development would encourage Sabi youths to stay on the land. His views are widely shared in the village, also by many youths wishing to migrate. But in Sabi, migration is not necessarily the result of crisis. Let us recall that migration from the Upper River to other West African destinations boomed in the 1950s at a time of relative agricultural prosperity. Significantly, Sherif does not say that development will fix people in a place. He says that they will focus their minds on agricultural opportunities, and away from the hazardous backway – an option that is in any case considered too risky by most youths in the village. This does not remove other migratory paths. A return migrant himself, Sherif has several sons abroad who take good care of his family.

Migration governance not only struggles to accept the normality of migration in places such as Sabi, but also seeks to actively contrast it and inculcate normative sedentariness. The project «Building a future – Make it in The Gambia» was launched through a campaign that promoted the concept of «tekki fii» («make it here» in the Wolof language). The concept was popularised through a country-wide campaign of music, song and videos featuring entrepreneurs who «made it» in The Gambia and the surrounding region. The scope of the campaign went beyond publicising economic opportunities. It targeted attitudes and orientations in a context in which migration is perceived to be the prime model of success and the default aspiration of Gambian youths. That Gambian and other West African youths put their lives at risk in order to reach Europe is attributed not solely to poverty but also to a «culture of migration» that is fed by misrepresentations and peer or family

23 Malkki, L.H. (1992), «National Geographic: The Rooting of Peoples and the Territorialization of National Identity among Scholars and Refugees», *Cultural Anthropology* 7(1), 24–44.

24 Zanker, F., and Altrogge, J. (2019), «The Political Influence of Return: From Diaspora to Libyan Transit Returnees», *International Migration* 57(4), 167–80.

25 Bakewell, O. (2008), ««Keeping Them in Their Place»: The Ambivalent Relationship between Development and Migration in Africa», *Third World Quarterly* 29(7), 1341–58.

pressures to leave. In the media, the illusion of Eldorado Europe is leitmotiv. So is the role of migrants in silencing the hardships encountered on the route to – and within – Europe as well as the circulating success narratives. The excesses of this culture of migration, the discourse goes, must therefore be curtailed through information and sensitisation campaigns on the realities of backway migration.

This is where agriculture becomes important – not simply as a form of employment, but also as a pedagogical tool to instil a culture of sedentariness. Current initiatives are in continuity with an older discourse on agrarian development in The Gambia. In the early 2000s, the Gambian government insisted that Gambians should return to agriculture. A number of campaigns were created, such as «Back to the Land» and «Operation Feed Yourself», which envisioned agricultural modernisation and the creation of exemplary farms able to attract alienated youth back to the rural areas. Yahya Jammeh, then president, liked to portray himself as an entrepreneurial farmer who lived by the motto «grow what you eat and eat what you grow» on his vast agricultural estates. The initiatives and rhetoric around a return to the land soon became wedded to an anti-migration stance. Engaging agriculture would help reverse uncontrolled urbanisation, and especially counter migration to Europe. This attracted the attention of European policymakers searching for African partners to stop emigration to Europe. In 2012, «Operation No Back Way» – the governmental campaign against irregular migration – received funds from the EU via the Gambia Emergency Agricultural Production Project. For the Gambian government, it was not only a matter of creating jobs and opportunities, but also of transforming what public discourse depicted as lazy, deviant youths daydreaming of Europe into hardworking and morally upright farmers earning their bread by the sweat of their brow. As noted, the reality of so many Gambian youths affected by unemployment, rural decline and political oppression was, and still is, quite different.

Elements of this agrarian pedagogy, as I will show, resonate with popular views in The Gambia. Yet, I would like to challenge the very premises of past and present discourses on migration and agriculture that envision agrarian life as a solution and corrective to a culture of migration, which threatens to not only empty the countryside, but also wipe out a generation of young men and women venturing through deserts and seas in pursuit of their European dreams. My critique targets the received view that migration means neglecting agriculture, and that investing in agriculture re-roots youths and mitigates their migratory aspirations.

The agri-culture of migration

Rather than a culture of migration, Sabi villagers have an agri-culture of migration. The etymology of the Latin word *cultura* is linked to agri-culture. I am aware of the risks that this etymology entails, in that it may reproduce what Malkki termed an «arborescent culture», which ties culture to territory, and identity to roots.²⁶

²⁶ Malkki (1992), «National Geographic», p. 27 (see note 23).

This is not my intention. To the contrary, I want to show that sedentary and migratory activities are combined in ways that are not necessarily intuitive and go against the canonical dichotomy between agriculture and migration, immobility and mobility.

I first met Demba²⁷ in late 2006. It was the dry season, farming was over and there was barely any work to do in the village. Demba was then in his mid-twenties, wore nice clothes and was a popular «ghetto» leader. He gathered around him a number of young men, treating them to cigarettes, music and green tea late into the night. The year 2006 was the peak of boat migration to the Canary Islands, including from the Gambian coast. It was a turning point in Europe's attempt to curb unauthorised migration from Africa directly on sub-Saharan African soil, and it laid the foundation for the initiatives I have described so far.²⁸ It was also the high point of Jammeh's anti-migration rhetoric. Observing Demba and his friends at this time of the year, one was tempted to view them in stereotypical terms as lazy boys wasting away, jobless, in «ghettos», shunning farming and daydreaming of Europe. Demba and virtually every other young man in his gathering wanted to leave for greener pastures abroad. Even though none of them wanted to board a boat to the Canary Islands, Europe and North America topped their lists of desirable destinations.

But the stereotype proved to be inaccurate upon closer observation. Demba had been busy farming the past rainy season, as he had done since childhood. Like many men of his generation, he grew up as a farmer and then as a Quranic student. He liked to recount the hardships of his childhood when he was studying and working at the Quranic master's compound, where he would do hard work in the fields, fetching firewood, a little food, sometimes sleeping on mats, all of which was subjected to the whims of bullish seniors: «Eh, my friend, we suffered. But it's good. Now that my body has become stronger [Soninke: *kendo*], I am fit for hustling. I can go and find money. I can work hard, I fear no job.» After that, Demba farmed in the rainy season (June–November) and hustled – that is, finding money through work and business – in the urban areas of the Atlantic coast of The Gambia in the dry season (December–May). When I met him in 2006, he had just returned from the city for a visit.

Rather than seeing incompatibility between farming and migrating, Demba clearly sees agrarian life and work as what prepared him to go and hustle away from his village. In contrast to the public discourse on migration, young men like him do not expect to find an easy life and easy money abroad. Those focussing on Europe know that they will have to endure long hours in menial occupations, face discrimination and lead frugal lives. How do they prepare for this? By farming.²⁹

27 A pseudonym.

28 Andersson, R. (2014), *Illegality, Inc.: Clandestine Migration and the Business of Bordering Europe* (Berkeley, CA: University of California Press).

29 In Sabi, formal education, both secular and religious, has been growing steadily since the 1990s. Although this partly competes with this agrarian pedagogy, many families in Sabi send their children to both farms and schools.

In addition to training the body to do hard work, farming means replenishing the granaries of the household, which teaches boys the value of ensuring family survival in a collective manner. Once abroad, they will continue to fill the granary by sending money for bags of rice and other staples. In farms, households or Quranic schools, boys gain experiential knowledge of rural hardship, which is said to prepare them to cope with crowded rooms, live simple lives and endure sacrifices. Knowing hardship at home will further remind them of those they have left behind and to do all they can to help.

Certainly, few young men want to remain farmers for the rest of their lives. Even if agriculture remains an important activity, one might still find a strong migration culture luring young men away from farms. Migrating abroad means money and experience as well as the possibility of becoming a breadwinner, marrying and making a name for oneself. In 2008, Demba was finally able to convince his elder brother to sponsor his migration to Angola, where he promptly began hustling as a petty trader while navigating the tough migrant life there.³⁰ Yet, agriculture and rural life was again to become important when he came back in 2013. He simply meant to visit the family and return to Angola, but he was delayed by financial problems. Meanwhile, his mother was ailing and the household head had passed away. Several other men in the household had migrated and were unable to replace him. In the household, there were mostly the wives and children of these migrants. Somebody had to stay and take care of the family, tend to the fields and teach the children how to farm. Since then Demba has remained in Sabi, farming and doing business in the village and administering the remittances sent by members of his household who have migrated. His work in the household is more precarious and less noted than that of his brothers abroad. It is nevertheless a crucial element of the economy and morality of migrant households. He stays put not simply because he failed to re-emigrate or prefers a peasant way of life. Rather, his farm work, care work within the family and management of the household enable other men to be away on a quest for money. The latter, in turn, support his being in the household by sending money and commending his role.

Conclusion

In policy and public discourse, agriculture is often depicted as the bedrock of a sedentary life *and* value system, which climate change – among other human-made calamities – disrupts, leading to emigration. In this view, Sahelian countries like The Gambia that are affected by fragile ecologies, rural poverty and rising emigration rates seem to be omens of the masses of migrants leaving Africa for better shores. Europe handles this as a security problem, marrying a discourse on climate change to one about controlling migration at the source. The proposed

³⁰ See Gaibazzi, P. (2018), «West African Strangers and the Politics of Inhumanity in Angola», *American Ethnologist* 45(4), 470–81.

solution is to develop agricultural sectors that are resilient to climate and sustainable so that Africans will stay at home.

Although this greening of Europe's containment approach to development and migration can be criticised at different levels, I have relied on evidence from Eastern Gambia to question the false premises of this discourse. In the first place, the assumption that environmental degradation spurs migration is not granted. A growing body of scholarship shows that climate-related challenges may cause immobility.³¹ It may further impoverish and enslave people, preventing them from gathering the necessary resources to go anywhere. As other contributions in this collection show, environmental events refract political and economic inequalities that dispossess people of the means to adapt to challenging situations, including by moving. In this contribution, I have also highlighted the socio-cultural aspects of what we might provocatively call «environmental permanence» as a counterpoint to the concept of «environmental migration». Notwithstanding the growing significance of ecological degradation and emigration along The Gambia, villagers in Sabi stick to the land as a resource that creates not just food to eat, but also sociality and values, thereby ensuring the future of their agrarian communities.

Secondly, staying on the land is by no means in opposition to migration. On the contrary, there exists in Sabi an agri-culture of migration: a synergy between agriculture and migration as well as sedentary and mobile lifestyles. Agriculture does not merely feature as a residual or resilient element neglected by youth, but as an integral component of their mobility. In the fields, boys learn skills and virtues that they then employ as labourers and traders abroad. Those who do not migrate or are required to stay do not shun farming either. Migrants depend on their presence at home, their work in the fields, their care for other households and their help with a number of errands and investments.

There are certainly frictions between mobile and immobile lifestyles. Young men aspire to become migrants, not farmers. Migrants acquire wealth and travel the world; their efforts are celebrated back home. Toiling in family fields for a meagre yield does not quite bring the same status and knowledge; erratic weather, among other uncertainties, might reduce their efforts to zero. Poverty, frustration and despair in Sabi and elsewhere in rural West Africa are real enough to make young people leave the land and even embark on the backway.

On the other hand, we should avoid making too close an association between rural decline, cultures of migration and unauthorised migration to Europe. Sabi is by no means a ghost village that all the able men have left. Villagers have felt the backway as a poignant problem and mourned the loss of a handful of their fellow villagers on the route. Yet, there is no alarmism in this village, which has endured so many seasons of migration – and continues to do so. Although some leave, some always stay and/or return.

31 Zickgraf, C. (2018), «Immobility», in McLeman, R., and Gemenne, F. (eds.), *Routledge Handbook of Environmental Displacement and Migration* (Abingdon-on-Thames: Routledge).

Finally, in this context, pushing for a sedentarist reform of West African youth might do more harm than good. Even where it is well-designed and not merely an embellishment of repressive measures of migration control, using development to emplace would-be migrants often misunderstands the local logics of migration management. The people of Sabi welcome rural development that brings job opportunities for local youths – development that might improve local livelihoods and enable the disenfranchised to stay with dignity. Yet, so far, what has enabled them to stay put has been migration, actually, rather than the state, non-governmental or other development organisations. Migrants' economic, social and cultural investment has given purpose and sustenance to sedentary men, despite the various imbalances between migrants and non-migrants. Impossible visa conditions, perilous routes, suspended lives in camps and the bureaucratic entanglements of asylum and migration in Europe and elsewhere delay migrants and hamper their ability to remit and invest back home, thereby preventing them from forging permanence. In other words, further restrictions and deterrence measures against migration from Africa – even if combined with the carrot of rural development – might prevent people from staying put, and eventually push them to leave in their turn.

ANA NAOMI DE SOUSA

«What makes us resist is the land itself»

AN INTERVIEW WITH ERILEIDE DOMINGUES, BRAZIL

Erileide Domingues, 29, is a Guarani-Kaiowá spokesperson who lives in the village of Guyraroká on a piece of land that has been *retomada* [«taken back», referring to land that has been occupied as part of land struggles] by the Indigenous Guarani-Kaiowá people. Guyraroká is located in the western Brazilian border state of Mato Grosso do Sul. The Guarani-Kaiowá people are natives of Brazil, Paraguay and Argentina.

In Brazil, the Guarani-Kaiowá people were first displaced from their lands and enslaved by colonial invaders who arrived in the 16th century. Over time, much of that land was deforested and used for cattle grazing or farmed intensively. During the military dictatorship of 1964–1985, the Guarani-Kaiowá were among the Indigenous people forced onto reservations. Since the end of the dictatorship, many Guarani-Kaiowá have ended up working on the sugarcane plantations that cover the state, while many others live on small tracts of roadside land where they await legal decisions on the possible reattribution of their traditional lands. There has been an epidemic of suicides among young Guarani-Kaiowá men living in this limbo.

Over the past three decades, the Guarani-Kaiowá people in Brazil have intensified their struggle to take back their ancestral lands through a combination of territorial occupations and court petitions for demarcations. This struggle has led to hundreds of deaths of Indigenous people, often at the hands of armed farmers and their militias. More than 40 per cent of the Guarani-Kaiowá people in Brazil suffer from malnutrition, and there have been dozens of reported cases of mass poisonings from the aggressive use of agricultural chemicals.

Meanwhile, the election of Jair Bolsonaro in 2018 has resulted in the dramatic defunding and dismantling of State Indigenous institutions (including FUNAI, the National Indian Foundation, an official State institution in Brazil) and, at the same time, the emboldening of the agricultural lobby, known in Brazil as the *Bancada Ruralista*.¹

¹ The Bancada Ruralista is Brazil's agricultural lobby, associated with the political right-wing and explicitly opposed to agrarian reform, environmental conservation and Indigenous land rights.

Ana: *To begin with, can you tell me a little about the community you are from and its history? And about your history in relation to the land you're currently occupying?*

Erleide: I have been involved in this struggle since I was eight years old, alongside my grandfather. He's very old now but he's still active – we Indigenous people can't stay still, even when we're ill we have to keep working!

I will tell you in my grandfather's words, what he says about how the Guarani-Kaiowá people lost their territories: It's been more than 100 years since people were pushed out of Guyraroká. Many were killed when the [Portuguese] colonels and generals arrived and lied to the Indigenous people – by telling them that they had purchased the land, and that because it had been purchased, they were obliged to leave. Having been expelled, many died; some fled and some tried to stay around here and eventually went looking for other reserves. Those who stayed ended up becoming a *pião* [serf, or casual – usually landless – farm labourer] working in exchange for food, and surviving like that.

What led to the *retomada* of the Guyraroká traditional lands more recently was the same reason that the Guarani-Kaiowá have taken back many other lands: The [reservation] the government had allocated to us, where they had penned us in, was overcrowded – they had made a pigsty for us Indigenous people, basically. We Indigenous people need to have our space, we need the forest, we need expanses of land – and when we feel like we're in a cage, in a pigsty, penned in on all sides, we can't have our freedom: freedom to cultivate and plant, hunt, and that's hard. For years our *parentes* [referring to another Indigenous person] were just going round and round inside that pigsty. When they went beyond its boundaries, they were chased, shot at, killed, women were raped – many things happened, and there was no peace for us. So in 1999 my grandfather brought together 600 people who had been kicked off our land and they decided to return here, to take back the land. I'm saying «they» because at the time I was only 8 years old, and I didn't fully understand what was going on.

So, from 1999 on, they persevered with their attempt to re-occupy the land – they were kicked off three more times, under the landowner Zé Teixeira, the federal congressman for Mato Grosso do Sul. A lot of people were injured and much blood was spilled so that we could be here today, 20 years on. It's a source of great anger for the landowners around here that we have stayed. Many of our *parentes* have died in Guyraroká, but we have persevered. We hope to gain back 11,401 hectares in total, including the 55 hectares that this village, Guyraroká, lies on – if we can win the demarcation case. Last year, my grandfather celebrated his 100th birthday in Brasília, right opposite the presidential palace. The petition had been recognised initially, but then Judge Gilmar Mendes annulled it. He said the territory is not recognised as traditional lands, so everything has ground to a halt at the Supreme Court. But still, we have stayed here in this struggle for our lands. It's my grandfather's dream to see it given back, and this is the dream of the Guarani-Kaiowá people, too.

Ana: *So when did you become involved as an activist yourself?*

Erleide: The Guarani-Kaiowá people are treated as children until they reach adolescence, and then they are taught about the situation and gradually move further towards the frontline of the struggle. In my case, that began when I was 12 years old. At that age, we're not aware of everything, but by being there we bear witness to events, we see what happens, we see people being targeted with weapons, people being shot, and so on.

When I was 8 years old, I heard they were going to re-occupy the land that had always been theirs. As a child you don't get involved much – but I would always hear my grandfather and grandmother and the other elders saying that «the land cries out for its keepers». Then, when I was 12, I started to take part alongside them. As a teenager it was good, yet at the same time it was... frightening, to see weapons being pointed at your family, for example – you start to experience a more adult reality. And you see how difficult it really is to take back the land. We would receive verbal and physical threats, and we were often shot at with rubber bullets. And those experiences are not easy to get over. My late uncle who was a leader here was killed, shot in front of his people by a gunman like a wild animal. It is very saddening, but over time this has become easier to deal with.

So, until I was 16 I still wasn't deeply involved – what I was doing was simply watching and living, the way we grow and live together, in unity, which is tied to how important the land is to Indigenous people. Then I left and spent 10 years in the capital – I went seeking knowledge and information, and to finish my studies, too. I never thought I would end up working with the Guarani-Kaiowá people, or being a spokesperson for Indigenous peoples, whose rights are still being violated today. I don't know how to explain exactly what happened... But I came back in 2017, when my uncle had died on this 55 hectares gained partly through his own struggle, for which he spilled his blood. That's here, the land where we are today. So with that comes, I don't know how to explain the form of it exactly but... it's like I have a role to play, it's in my hands now. From then on I started to accompany my grandfather, following his dream and the dream of the Guarani-Kaiowá people that we would someday get back the land that was always ours. He is one of only four people here still alive who was actually born here, so we have our ancestors' stories, which we have inherited from them. And I'm here by his side, in this struggle, helping with communications and the phones and paperwork, in guiding the community and so on. He can't do so much now because of his age, but he is always listening to his community to hear what they have to say. Today I am one of the spokespeople and activists for both the community and my grandfather as well as for the Guarani-Kaiowá people. Regaining this land is our great challenge. But it's what we have to do, what we *will* do in the name of our *parentes* who have already left us.

Helping my grandfather is a very big responsibility – he can speak of many things, orally, but there has to be someone to help with the written word, because without the written word today, we can't prove anything. It's not easy to work with *parentes*, just as it's not easy to work with the non-Indigenous people who spread

hatred of the Guarani-Kaiowá. With the little experience I have – I say that because I feel I am still on a path of learning – we, as activists and spokespeople, carry a sad burden about what has happened to the Guarani-Kaiowá people. Many of our people are still living along the roadside, in the hope, the dream of recovering their own lands so that one day they can have a base and the freedom to rest there in peace again.

Ana: *You said that the land is calling for its keepers. I wanted to ask you about this relationship with the land and nature, and the wider issue of the environment, too. Lately, people are realising the importance of learning from Indigenous communities about the relationship to nature and with the land. What do you think about that?*

Erleide: There is just so much to say. For Indigenous people, traditional people, everything is linked; each thing is connected to the other. I will speak a little more generally about Indigenous people now. I am going to speak on our behalf about what led us to take back the land. The land had been devastated ever since the arrival of non-Indigenous people, that is, since what I would call the *invasion* of Brazil. They came and exploited medicinal herbs, exploited the animals, exploited Indigenous peoples, exploited the land and exploited Mother Earth. And over time they ended up obliterating, killing, suffocating nature, and then there came a point where the non-Indigenous people – the anti-Indigenous people as I am going to call them – surrounded this land where [our] people have always lived. We Indigenous people always observe the laws of nature, we fulfil and we obey them. That's part of the Indigenous mindset, because we know that everything we depend on – for our lives and for our bodies – is the land. It is the root of everything, and everything we give to the Earth, to Mother Nature, is given back to us, to our bodies, to our health, including as food and as medicine.

So, when we think about the *Bancada Ruralista* today, you know what they do? They destroy. If you could see the scene here in the village, I could show you what Brazil is like these days. The land we've been occupying for the last 20 years is not forested, there are no trees left – there used to be cattle grazing here and the land was badly damaged. As a result, it's hard to grow food for our community, to get food from the land to feed our families. This is taking time... We are practically starting from zero. Over these 20 years, some plants have been sown, and time has done its work. Even some birds have started to return, and for each child that is born we replant trees. But our river here has been drying out due to the spreading of poisons, because we are surrounded by plantations of crops like sugarcane and corn. When it rains, the poisons that they spray by tractor and plane penetrate the water table and pollute the environment and the air we breathe. Last year, I had to lodge a national and international legal case because the community here was poisoned. Since it first began, the children complain constantly of stomach aches, headaches and weakness, particularly here in Guyraroká, but also in other areas where the Guarani-Kaiowá live in Mato Grosso do Sul – because in this state we are surrounded by crops. We don't have many options of where we can plant and harvest

in the way we Indigenous people would like in order to feed ourselves, because for us nutrition is a kind of medicine. Here, for example, we plant pumpkins or potatoes, because the drying agents they use on their crops dry everything else out – the only things that can survive are things like that or cassava, which survives underground. Other things like bananas, papayas and other fruits, they all dry out. This scarcity, this shortage, has a huge impact on our health. We can already tell that we will be more susceptible to coronavirus and its spread because of that.

Ana: *The poisoning – can you tell me a little bit about what happened there?*

Erileide: Ah yes, so the lands around us were used for cattle rearing until around 2014, then they started growing crops. In May 2019 they took away all the cattle and they sprayed a product on the soil – I don't know exactly what it is, but it's similar to an agricultural lime. Those lands come right up to just 15 metres away from our schoolhouse, and it ended up being sprayed *on* the community. Some people who were there filmed it. We didn't really get medical help; medical attention here anyway is scarce. They might come by every couple of weeks, and they don't do tests or keep track. My own mother got poisoned too, and for a week she couldn't keep any food down at all. She had stomach cramps, diarrhoea – but the doctor just gave her a pill and didn't follow up. There were children, including a newborn baby, whose mothers had to go running to the roadside for help because the children had been sprayed with it, it was on their skin, and they were crying and vomiting. Almost the whole community was affected, so we made an official complaint. I made a petition in the Human Rights court, but absolutely nothing else has been done about it – nothing, nothing at all. All that the Public Prosecutor's Office did was to tell the farmers to respect a 250-metre boundary – but it's not being observed. Since May 2009 until now, lots of dogs and chickens and cattle here have died – often animals are much more fragile than us. We can take much more, we keep going through it, although we do get weakened too. The children still say they have stomach pains, diarrhea, vomiting. We don't have much help from SESAI [the Indigenous health service of Brazil's Ministry of Health].

Ana: *In terms of migration and mobility, how are you and the communities being affected by climate change? Is this making people leave the land?*

Erileide: There have been changes to the climate for a long time. These changes are really due to the lack of wild nature and the lack of forests. Now summer comes instead of winter and winter comes instead of summer. Everything is back to front... We are in the month of May, which is not supposed to be cold, it is not supposed to be raining, yet now it is raining. Our health deteriorates and our plantations are really no longer viable, but we also have to try and keep up with these times.

People have not left due to the problems caused by climate change, simply because we *cannot* leave. Because of the new government, we cannot migrate.

To ensure our place on this land, as we are currently occupying it, we have to remain here irrespective of the weather, or the climate, or the situation.

And so instead, we try to take advantage of the rainy weather, for example planting fruit trees and bearing in mind that next year we can take advantage of the heat. We make the most of the cold, of each season. Even though it is very strange for us, we have to keep up and stay put in this place we have taken back. If we were to migrate because of changes to the climate, we would end up losing, and the government would get its way and take the land back again. They have already sprayed poison on us, dried our crops, killed our plants. They warn the community not to hunt, not to fish, not to get firewood, all so that we might be discouraged from staying and move away to a reserve or to another village. But we have been here for 20 years, surviving all these hardships, and always staying. So we have been through what we had to, but we are staying here, keeping up with the weather, making the most of it. Indigenous people are in tune with the weather, for example my grandfather, Tito Vilhalva, prays for the rain to stop, or if he wants it to warm up. He is a leader, and he is also what the non-Indigenous call a *Pajé*, a prayer. He may be 100 years old, but he still plants and harvests, he loves to fish – his thing is fishing.

Ana: *Speaking now more generally about the various Indigenous communities in Brazil, can you talk about the challenges in relation to the Bolsonaro government, and the environmental and land issues under this government?*

Erleide: The government of... it's shameful even to say his name. Hearing it has a powerful effect somehow – I will say «that man», ok? Him and that [Environment Minister] Ricardo Salles are part of an *anti*-Indigenous lobby. It is very worrying for those of us who are involved in these territorial claims, in this struggle for our lands. There are 50,000 Guarani-Kaiowá people, which is the second-largest Indigenous population in Brazil, and there are currently between 42 and 46 land occupations with land rights cases now in progress. The new government has brought everything to a standstill, and we are very worried because they have already made it very clear to us that they will not draw a demarcation line for one single centimetre of Indigenous land. When we Indigenous people are threatened, Mother Earth herself is threatened, because our lives speak for the Earth, the Earth speaks for our lives.

The lives of the Guarani-Kaiowá of Mato Grosso do Sul are greatly affected by being landless, and in turn by the lack of land demarcation. Many Guarani-Kaiowá leaders have already shed their blood in this struggle. Now they are being reborn again because, as the saying goes, «they cut our trunks but forgot to pull out the roots». The new leadership have grown from these roots, and we are occupying these spaces as young people, learning to move forward along the path of the struggle.

Many other Indigenous people throughout Brazil already have their lands, unlike in Mato Grosso do Sul. But the anti-Indigenous faction is still fixated on the

wood that could be cut, the ore that could be mined – they want to do to other Indigenous people what they have done here in Mato Grosso do Sul, by withdrawing their land rights, expelling them and sending them packing to the roadside. But look at the Guarani-Kaiowá: We were living at the roadside yet after everything they have done to us, we have come back and are still hoping for our return.

Ana: *I didn't ask about FUNAI. What's the situation right now?*

Erileide: FUNAI is currently in a difficult moment. It's being decimated, financially, and FUNAI today has actually become an anti-Indigenous organisation. So we don't look to FUNAI anymore. I mean, I don't even know what's become of them lately because, even in the middle of this pandemic, they haven't been present at all for the Guarani-Kaiowá in Mato Grosso do Sul. They seem not to care. Last year they passed a decree banning FUNAI staff from using FUNAI vehicles to visit any occupied villages that are not fully legalised, so from then on they stopped coming and we've seen nothing of them since. If a FUNAI staff member wants to go to a village, then the national president of FUNAI has to approve it... and he's a *Bolsonarista* [a supporter of the right-wing government of Jair Bolsonaro].

Ana: *What would you say is the biggest threat in terms of the fight for the land, at this moment?*

Erileide: Look, we are facing a very big challenge with this government. Our *lives* are being challenged by this government. We are attacked from left, right and centre, and the attacks are not small, you know, it's like... a bomb going off every day. There are many Indigenous people who have been bought off by the *Bancada Ruralista* and the anti-Indigenous lobbies. What the government is doing is causing genocide.

I think, actually, I would leave a message for them: that they respect their brothers and sisters, because before God all of us are brothers and sisters. And really, the government we are facing today sees us Indigenous people as less than human – I think they see us as worse than animals. But we are really going to fight whatever comes our way. We will insist for our rights as they exist in the Constitution, because ultimately the government is temporary, but our rights are enshrined in law. So the message I want to leave them is that they respect what is in the Constitution and not only put into practice what it says, but also consult with Indigenous peoples before making their decisions. We are human like everyone else.

Ana: *I don't know if you would like to say anything more about something we talked about – the environment, the struggle for land, the community, or as an activist and spokesperson?*

Erileide: What I feel today, as a young person, is that it is not easy to be Indigenous and to face anti-Indigenous people. Part of our struggle as young people is to

endure prejudice and racism. We Indigenous people have gone through a lot, and I myself have – but I hold my head high. I am always ready as much for my community, for the Guarani-Kaiowá people as for anyone who is in need. The challenge is huge. As a young woman, I always remember that the most important thing is that Indigenous rights must be upheld. Today I am on this journey of becoming a leader – I don't really like that word but that's what they call me – and accompanying my grandfather, still learning. Sometimes it is not easy, there are many challenges and it's a huge responsibility to bear. As activists and spokespersons, we run a very big risk from anti-Indigenous people, but we always have the guidance of the elders, because our elders are teachers for all us activists.

Ana: *How do you think about your resistance? In terms of the way that you think about creating your resistance and responding to these challenges?*

Erleide: Well, this resistance comes from within us, and from working in unity: What makes us resist is the land itself. The land is everything – there is not much more I can say than this. We Indigenous people are resilient because of Mother Earth, because of nature, because of our elders. We resist and we insist because of the past, in order to be able to exist – because without resistance, and without the land, we could not.

«Resistance» is a very beautiful word, very powerful. I see this word «resistance» used a lot in posters all over the place. But if you stop to think about it, resistance has brought, and still brings us, death. Sometimes I reflect on everything that has happened during our existence, our resistance. It is very painful for us to think about. Something that sometimes upsets the people who come here to confront us is that this resistance is within us, it adorns our soul, it adorns us. We resist with our lives. That's what I take from it – when one of us falls, another rises.

Drought in the Northern Cape, South Africa: How climate change turned a small town into a permanent refugee camp*

Commercial agriculture is collapsing in South Africa's Karoo region, a semi-arid desert covering more than 400,000 km². The Karoo's economy is dependent upon dry-land agriculture, primarily sheep farming. Since at least 2015 it has been severely affected by a prolonged drought that has blighted South Africa, Namibia and Botswana.

Karoo's fate exemplifies the stern reality described by experts such as Andrew Marquard, a professor at the Energy Research centre, University of Cape Town: «I would say that for any drought in Southern Africa now, there is a climate factor. It seems the latest science is that we are now not anticipating climate change, we are now in it.»

The current drought is bigger than any the country has known, according to Dr Imtiaz Sooliman, director of South Africa's largest disaster relief NGO, Gift of the Givers. At least 63 towns are in need of immediate and substantial drought assistance. «The scale is far bigger than anyone in this country understands,» says Sooliman, who describes commercial agriculture in the Karoo as being in a state of «total collapse».

Gift of the Givers has provided US\$12 million in drought relief since 2017. Sooliman estimates that a further US\$17 million is needed in 2020 for the Northern Cape province alone. According to Stats South Africa, the Northern Cape experienced a 16.3 per cent year-on-year reduction in farm employment in 2018/19.¹ Eight thousand agricultural jobs were lost.

* This text is based on field research that started in 2016 and culminated with in-depth field research during May 2019. The field research, which focused on three towns, consisted of gathering photographic evidence and face-to-face interviews across social class and race. For example, farmers, politicians, business people, farmworkers and residents. In addition to these interviews, desktop quantitative research and interviews with experts were conducted. The research was funded by the Heinrich Boll Foundation.

1 Statistics South Africa (2019), *Quarterly Labour Force Survey, Quarter 1: 2019*, p. 52, available at: www.statssa.gov.za/publications/P0211/P02111stQuarter2019.pdf.

With a population of about 3,000 people, Strydenburg is a small Karoo town 180 km south-west of Kimberley, the provincial capital of the Northern Cape, where matters are well past desperation. The main road that runs through it starts at a petrol station with a liquor store, runs past a variety of closed shops, and ends at an abandoned community centre.

In 2019 Hopetown, which is 50 km from Strydenburg and part of the same winter-rainfall region, only received 6 mm (16 per cent) of its 37 mm average in January, a critical month for rainfall.²

Strydenburg's community centre is abandoned. Beyond its empty swimming pool and rotting diving board, the desert stretches out to the horizon, covering farmland that was productive before the drought.

Hennie Zwiegers owns a sheep farm a few kilometres outside Strydenburg. His family has been farming there since 1837, but he will probably be the last person in his family to do so. He says «there's no future in farming» and doesn't expect to make it through the next winter (2019/20). Even if the rains were to return in the winter months (November to February), Zwiegers thinks it would take another five years for the land and livestock to recover. His few remaining sheep have stopped reproducing, and his game (primarily springbok) are dying from the lack of edible vegetation.

The disintegration of the livestock industry is leaving Karoo towns like Strydenburg with an economy revolving around social grants and a few state jobs. Hardly sufficient to deal with unemployment, expanding townships are experiencing deepening social ills. The average annual income in the Thembelihle municipality, which incorporates Strydenburg, is US \$1,650. Thirty-five per cent of Thembelihle's population is under the age of 19, and only 27 per cent of the total population has finished secondary school.³

Brenda Mphamba, the African National Congress mayor of Thembelihle, says that since 2016, the community has seen a substantial increase in the use of methamphetamine, locally known as «tik». This is on top of a serious problem with alcohol. The Northern Cape province has one of the world's highest rates of fetal alcohol syndrome. De Aar, a large town 100 km from Strydenburg, has a foetal alcohol syndrome rate of 119.4 per 1,000.⁴ The HIV/Aids prevalence rate in the Pixley ka Seme District (which covers Strydenburg) is 16.7 per cent.⁵

2 Diamond Fields Advertiser (2019, February 4), «Gloomy Rainfall Figures for NC», available at: www.dfa.co.za/news/gloomy-rainfall-figures-for-nc-19121325.

3 Statistics South Africa (2016), South African Community Survey 2016, available at: <https://wazi-map.co.za/profiles/municipality-NC076-themb>.

4 Olivier, L. et al. (2016), «Fetal Alcohol Spectrum Disorders: Prevalence Rates in South Africa», *S Afr Med J* 6, S103–S106, available at: <https://core.ac.uk/reader/194295564>.

5 Woldesenbet, S.A., et al. (2019), *The 2017 National Antenatal Sentinel HIV Survey, South Africa* (Pretoria: National Department of Health), p. 81, available at: www.nicd.ac.za/wp-content/uploads/2019/07/Antenatal_survey-report_24July19.pdf.

Steven Paulus, principal of the Strydenburg Combined School, describes the town's social problems as «a horror state of affairs», adding that: «We have a spike in drug abuse, we have a spike in teen pregnancy, we have a spike in lawlessness.»

Almost all of Strydenburg is now dependent upon social grants for survival. The grants range from old-age pensions, which are US\$106 a month, to child support grants of US\$25 a month per child. According to official statistics, the minimum per person income required to meet the most basic of food needs is US\$32 a month; 18 million South Africans (30 per cent of the total population) rely upon social grants.⁶

In 2018, South Africa's second-largest city, Cape Town, almost reached Day Zero, the day when the city would have run out of water. The primary cause was the drought, and that drought was almost certainly induced by climate change. A 2018 analysis of the drought led by Friederike E. L. Otto of the Environmental Change Institute concluded that, «The likelihood of an event like the observed 2015–2017 drought has increased by a factor of 3.3 (1.4–6.4). Unlike for other drought analyses in other parts of Africa, this is a very clear result with anthropogenic climate change having significantly increased the likelihood of such a drought to occur.»⁷

Day Zero arrived for Strydenburg in 2016. Leon Jantjies, head of the local branch of the African National Congress, is familiar with the challenges faced by policy-makers as a result. He sits on the board of the local clinic and of Future Leaders, an NGO that tries to give the town's youth a pathway out of drug abuse, despair and hopelessness.

Since the start of the drought, Jantjies has seen a dramatic increase in house break-ins, youth unemployment and drug abuse. He says, «Water is at the heart of everything. Without water you can't have development.»

Strydenburg has been under severe water restrictions for the past three years: supply is limited to six hours per day at the most. However, the Mandela Square township has such low water pressure that residents have to rely on four vertical storage tanks. The water for the tanks gets trucked in from Hopetown.

Hester Obermeyer is the spokesperson for Save the Sheep, an NGO working out of Sutherland, which is 470 km from Strydenburg. Statistics collected by Save the Sheep show that Sutherland used to have a carrying capacity of 400,000 sheep in 2015, but now can support only 63,000 sheep.

To unlock US\$142 million in disaster relief, Save the Sheep has called on the provincial government to declare the whole of the Northern Cape a disaster area. Without urgent assistance from the state, Obermeyer predicts that, «Farms are going to close down, their gates are going to be locked and the keys handed over to the banks. People are going to lose their jobs. A year ago the job losses in Sutherland, directly due to the drought, were 224 people. For a small town like Sutherland that is disastrous.»

⁶ See www.groundup.org.za/article/everything-you-need-know-about-social-grants_820.

⁷ Otto, F. et al. (2018), «Anthropogenic Influence on the Drivers of the Western Cape Drought 2015–2017», *Environ. Res. Letter* 13, 124010, available at: <https://doi.org/10.1088/1748-9326/aae9f9>.

South Africa's agricultural sector declined by 13.2 per cent in the first quarter of 2019.⁸ The drought is undermining the South African government's land redistribution efforts. Both emerging black and established white farmers are abandoning their farms, leaving them for the banks to reprocess. According to a local coordinator for drought relief, farms that used to sell on auction for US\$170,00.00 are now worthless, with the land resembling a gravel parking lot.

Strydenburg had 75 emerging farmers three years ago; emerging black farmers are the intended beneficiaries of the government's land redistribution programme, which is an attempt to redress the inequalities of apartheid and colonialism. About 80 per cent of the emerging farmers have now left farming altogether. Those who still farm do so on the sparse municipal land in and around Strydenburg, according to Andries Maries, chair of the Emerging Farmers Association.

Maries, a former farm worker, has been farming in the area for more than 30 years. If the drought continues for another year or two, he says, «It will be very difficult for me as an emerging farmer. I will have to sell my animals and stop farming.»

The expectation has been that, as climate change causes drought in this region, people would move from the rural areas to South Africa's main cities: for example, Johannesburg, Kimberly and Cape Town. Despite endemic poverty, a catalogue of social ills and a complete lack of employment, the people of Strydenburg are staying put. With an official national unemployment rate of 27.6 per cent, prospects of finding work in cities such as Kimberly and Cape Town are few.⁹ Additionally, moving would mean leaving the community's informal support system and living in an urban slum.

With South Africa's social grants system now functioning as a disaster relief scheme in Strydenburg – individuals most basic needs are just about met – the town has become a permanent but unintended humanitarian camp: The people of Strydenburg are seeking refuge from climate change in their own homes. However, the drought itself is not the only cause.

South Africa's economy last saw any kind of meaningful economic growth in 2007, and corruption has become endemic. The national debt continues to grow, the electricity supply has become erratic, the unemployment rate continues to rise and the water infrastructure is decaying: Some towns have seen the re-emergence of cholera. Although there has been the creation of a black middle class, the majority of the population has yet to receive redress from historic injustices, especially in rural areas.

These economic and social problems can only hamper efforts to mitigate the impacts of South Africa's first climate-induced drought. Towns such as Strydenburg are particularly affected due to these problems existing before the drought. Negative social, political and economic factors have amplified – and in turn been reinforced by – the impacts of the drought.

⁸ Department of Agriculture, Forestry & Fisheries (2019), *Quarterly Economic Overview of the Agriculture Sector: First Quarter 2019* (DAFF), p. 6, available at: www.daff.gov.za.

⁹ Statistics South Africa (2019), *Quarterly Labour Force Survey*, p. 1 (see note 1).





On a broader scale, this case study suggests that the problem of climate change and its impact on human mobility will be more complex than commonly assumed. Because of social safety nets and little opportunity elsewhere, some climate change-affected persons may be less likely to migrate elsewhere. Additional research into this phenomenon is needed to understand the deep and far-reaching impacts of climate change upon these populations, whose circumstances rarely figure in debates about policymaking in response to climate change in the Global South. As of July 2020, the drought continues in the Northern Cape.

NATALIE SAUER

Questioning the «poster child» cliché: Mobility and attachment in the Pacific island of Palau

It takes three to four years for 69-year-old Isabella Yano to grow a lush taro. The tall green plant, which can reach 1.8 metres, is the main staple of the Micronesian islands of Palau. Such is the importance of the crop in local culture that a Palauan proverb claims it to be «the mother of our breath» («*A mesei a delal a telid*»). Elderly women, known as *mechas*, have nursed it for centuries, drawing pride in the neatness, productivity and health of their taro patches.

Every now and again, Yano's breath is cut short by the high tide. Seawater creeps into her patch, painting the green leaves a morbid yellow and then brown. «It makes me feel sad and discouraged because when it happens all of the younger taro die,» Yano says.

Although much ink has been poured over the fate of low-lying islands such as the Marshall Islands and Kiribati, the higher islands of Palau are also vulnerable to climate change, with important implications for mobility. Located in the West Pacific between the Philippines and Guam, the small island state of the Republic of Palau consists of more than 300 atoll and high islands, of which only nine are inhabited.

At first glance, Palau's 18,008 inhabitants¹ appear safe from sea-level rise, with much of the country standing 9 metres above sea level on average. However, most of the higher ground is not well-suited for habitation, agricultural and economic activity due to its hilly and forested topography. As a result, Palauans like Yano live and work in the exposed coastal regions.

According to the International Organization for Migration (IOM), the main environmental factors relating to anthropogenic climate change that will become significant in the coming years are the increased strength of storms, droughts and sea-level rise.² Palau suffers from all three.

Not that these challenges are unfamiliar to the islanders. Lying just outside the Northern Pacific typhoon belt, Palau saw 68 tropical storms or tropical depressions

- 1 United Nations Population Division (2019), *World Population Prospects: 2019 Revision*, available at: <https://population.un.org/wpp>.
- 2 IOM (2014), *IOM Outlook on Migration, Environment and Climate Change* (Geneva: International Organization for Migration).

come within 200 nautical miles of its islands or reefs between 1945 and 2013.³ On occasion, these have spurred exodus. In 1904, a huge typhoon pummelled the Sonsoral islands, which are located more than 300 km away to the south-west of Koror. The German administration relocated the people of Merir and Pulo Anna to the main islands.⁴

But residents and scientists alike say storms have taken on a new force. «In generalised Palau talk, storms have got more severe,» says Peter Black, an ethnologist who lived in Tobi Island in the 1960s and 1970s. He has dedicated his life to documenting the island's culture. «I got to Palau in 1968 and they had a typhoon right away. There were very few people there who had experience of that. The big typhoons in that part of the world were always passing north of Palau.»

«Now it's become semi-routine,» he says, adding: «You'll see these Facebook posts: «Watch out everyone, a storm is coming.»» In December 2012, weather reports announced a «one in a million typhoon». Super Typhoon Bopha, as it was to become known, ripped into the coral reefs east of Koror state, unleashing storm waves of 35 feet or more. Super Typhoon Haiyan – one of the most powerful Pacific tropical cyclones on record – followed almost on its heels in December 2013, its eye moving close to the island of Kayangel.

Palauans can no longer take fresh water for granted. In March 2016, cumulative rainfall for Koror was the lowest recorded in 65 years,⁵ prompting President Tommy Remengesau to declare a state of emergency. Water was rationed and emergency assistance was delivered by the IOM. The harmless golden jellyfish from Palau's popular Jellyfish Lake died by the hundreds of thousands.

The ocean, on which Palauans depend upon for food and tourism, has become a menacing figure. Rising by about 9 mm annually since 1993, it chews into the island's taro patches incrementally, as stilts and raised foundations appear under houses. «Old people say: When we were young, we knew the wet season and the dry season and now it's all over the place,» says Margo Vitarelli, a Hawaii-based Palauan artist. When drafting Palau's climate law in 2015, President Remengesau voiced similar concerns, describing the «biggest predictability» for his country as «unpredictability».⁶

Has such unpredictability led people to leave their islands and Palau? The following sections of this report respond to this question by considering past and current migratory trends, surveying the academic debate on climate migration in Palau before turning to stories of unsustainable urban development on the mainland.

3 Coral Reef Research Foundation (2014), *A Summary of Palau's Typhoon History 1945–2013*, available at: <https://coralreefpalau.org/wp-content/uploads/2017/05/CRRF-Palau-Typhoon-History-2014-1.pdf> (accessed 15 July 2020).

4 Ibid.

5 Republic of Palau (2016), *Drought Report*, available at: www.palau.gov.pw/wp-content/uploads/2017/06/2016-Drought-Report.pdf (accessed 15 July 2020).

6 SPC (2015), *Palau's Climate Change Policy to Prepare the Island Nation for «Unpredictability»*, available at: <https://reliefweb.int/report/palau/palau-s-climate-change-policy-prepare-island-nation-unpredictability> (accessed 15 July 2020).

I then consider the Kayangel people displaced by Typhoon Haiyan and the threatened repopulation efforts of Tobi Island. I conclude with a note on the question of adaptation.

Climate migration in Palau: A few figures and references

As this volume makes clear, the term «climate migration» has courted much controversy over the past decades, with critics arguing that it is almost impossible to disentangle environmental factors from socio-economic factors driving people to move. The task of linking migration to climate change gets even trickier in the case of Pacific Islanders, who, thanks to their rich transnational migration traditions, often see themselves first and foremost as sea voyagers.

«Pacific Islanders have always been migrating,» says Yimnang Golbuu, head of the Palau International Coral Reef Center. «The original people who came to these islands migrated here. We've been migrating to different places for different reasons: education, jobs. So it's not like we never migrated and all of a sudden we are forced to move.»

This tradition of mobility exists alongside a firm attachment to place, according to chief of staff for the governor of Koror, Joleen Ngoriakl. Palauans' identities, she explains, are intimately bound up with the islands themselves. In its 2017–2020 country profile for Palau, the IOM sides with her, evoking the «deeply rooted relationship that communities have with the land».⁷

Current emigration

Palau, which in 2019 counted 18,008 inhabitants, has recently seen an increase in migration towards developed countries. Coupled with a decreasing fertility rate, this development has resulted in a declining population growth rate, estimated in 2020 to be 0.39 per cent.⁸ Internal migration from outer-island communities towards the urban centre of Koror also continues to proceed apace. However, the rate is less significant than departures overseas.

Political-economic alliances stemming from Palau's colonial history strongly influence where Palauans choose to migrate. The great majority head for the United States and its insular areas of Guam and the Commonwealth of the Mariana Islands, as a result of the Compact of Free Association with the United States. Passed in 1994, the agreement allows Palauans to travel to the United States as non-immigrants without a visa and enjoy an indefinite stay. More than 15 per cent of the population does this.⁹ Others migrate to Japan, Taiwan, New Zealand and the Philippines.

7 IOM (2018), *The Republic of Palau IOM Strategy 2017–2020*, available at: <https://publications.iom.int/books/republic-palau-iom-country-strategy-2017-2020>.

8 Ibid., p. 6.

9 Ibid., p. V, Foreword.

Migration patterns are thus overwhelmingly circular, with most Palauans choosing to migrate with the aim of returning home after studying abroad, enlisting in the American military or doing various other jobs.

It is important to note, however, that just as Palauans increasingly seek opportunities overseas, the country itself has developed a sizeable immigrant community. Around a third (28.1 per cent) of Palau's population is foreign born, with migrants primarily hailing from Indonesia, Papua New Guinea, China, the Philippines, Japan and the United States. This strikingly high figure underlines what many social scientists of climate change and mobility have been at pains to emphasise for some years now: A significant proportion of human migration under climate stress will involve movement *into* zones of higher risk from climate change.

The lure of the coast

The density of population in the urban centre of Koror renders Palau particularly vulnerable to climate-related displacement. As the country's touristic powerhouse, Koror hosts the vast majority of Palau's businesses, restaurants and offices. Critically, Koror is home to the country's only hospital and college: Palau Community College. It comes as little surprise, therefore, that more than 80 per cent of Palau's population lives in Koror.¹⁰

«When people think of low-lying islands, they think of the Marshall Islands and Kiribati,» Golbuu says. «But along the coast of Koror, on the eastern coast of Babeldaob, where people live, it's very much around sea level.»

Designed to attract foreign investment, a controversial policy to extend the land lease from 50 to 99 years has worsened an already precarious situation considerably.¹¹ In a 2015 blog post,¹² Ngoriakl slammed the «influx of foreign developers building hotels left and right, only to fill it up with their own imported labour, services and goods». The resulting surge in prices has priced many ordinary Palauans out of the centre.

«It's a combination of people getting displaced from sea level and economic growth,» says Xavier Matsutaro, Palau's focal point for the UN Framework Convention on Climate Change. «People competing for the same space... has produced tension. There have been landlords kicking out folks for economic reasons and people are offering higher rent for the same place.»

Speaking over the phone, Ngoriakl remarks that she never knew Palauans living in apartments when she was growing up.

¹⁰ UNDP (2016), *Human Development Report 2016: Human Development for Everyone* (New York, NY: UNDP).

¹¹ Vogt, I. (2019), *Tourism and Land in Palau*, available at: <https://youngphilanthropist.blog/2019/10/03/tourism-and-land-in-palau> (accessed 15 July 2020).

¹² Ngoriakl, J. (2015), *The Unattractive Side of Paradise*, available at: <https://medium.com/@joleenngoriakl/the-unattractive-side-of-paradise-a162cf83046> (accessed 15 July 2020).

Vitarelli agrees. «Before everybody had a piece of land, it was pretty egalitarian, pretty equal, you couldn't see a rich-poor difference. Now there is a rich-poor delineation in Palau,» she says.

In the face of rising seas and prices, relocating away from the coast – if not to Palau's higher inlands – would seem to be in order. But the area away from the coast within Koror is in even higher demand than the centre, placing it out of reach to ordinary families. The absence of essential infrastructure, including transport, in Babeldaob's higher regions means that those relocating would have to commute by car daily to the centre – an expense that is unimaginable in a country where the national minimum wage is US\$3.50.

Relocation as an adaptation strategy is further complicated by a notoriously complex land law system. Conflicting surveying systems developed during the German and Japanese periods of colonisation, followed by the destruction of land records during the Second World War,¹³ have produced countless land disputes. Palauans, Matsutaro says, «cannot just pick up and go to traditional lands outside of Koror because they're still in the middle of figuring out whether they can legally move there. Until that is settled, they're kind of stuck.»

«Even though [it is customary] for Pacific Islanders to adapt [to circumstances] moving around, but then there are also times when you cannot move to a different place,» Golbuu adds. «It takes a lot of resources to make that happen. It's not an easy thing to say «Move there or don't move to these coastal islands, because you're susceptible to storms and sea-level rise.»»

Trapped

Unable to flee to safety in town or to the hills, poorer households spill into Koror's mangrove areas. These are among the most exposed lands to climate impacts. Highly susceptible to high temperatures, they also get flooded during high tides.

«The poor families that are living in the mangroves are usually stuck in inter-generational poverty,» an official who wishes to stay anonymous, says. «I've visited families living in those areas and they're basically squatting.»

But even that bolthole is not safe from housing speculation. Over the past years, an increasing number of middle-class families have attempted to purchase mangrove areas to reclaim and live on. The official describes the market as «prime real estate». «It can be very difficult between rich and the poor,» the official adds.

If not the mangroves, marginalised Palauans may illegally occupy buildings under litigation – a common occurrence in a country grappling with land ownership delineation following colonialism.

13 Asian Development Bank (2017), *Palau: Policies for Sustainable Growth, a Private-sector Assessment*, available at: www.adb.org/sites/default/files/institutional-document/230131/palau-psa-2017.pdf (accessed 15 July 2020).

Typhoon Haiyan

On 7 November 2013, Super Typhoon Haiyan unfurled across the north of Palau. Of the republic's 16 states, the island of Kayangel, located 50 miles to the north of Koror, was worst affected. Resident Ungilreng Takawo,¹⁴ who had initially considered the authorities' offer to shelter in Koror, eventually chose to stay on the island along with most Kayangel people. With fourteen others, she sat tightly before one of the largest Category 5 typhoons on record made landfall. Around 11 pm, windows shattered, and a shard of glass flew across the room, embedding itself into one of the men's foreheads.

«After the windows broke, there was chaos everywhere,» Ungilreng says. «One heavy bench that was at the front porch of the house flew inside through one of the windows. The double door burst open and everything was flying around. Even the inside walls were ripped off.»

The group eventually took shelter in the concrete restrooms in the garden. Takawo thought she would die. «I never prayed so much like that night and I'm forever grateful to God to be alive.»

Out of 39 Palauan houses destroyed by winds of more than 260 km per hour near the storm's centre, 22 were in Kayangel. All infrastructure and agricultural crops were flattened.¹⁵ According to a report by the National Emergency Committee, 30 people stayed at the Palau Cultural Centre in Koror City, a government-funded facility, while 21 others went to live with relatives in Palau. In addition to their desire for secure accommodation, the possibility of giving their children continuous access to education was key in the Kayangel people's decision to relocate to Koror as they waited for their island to be rebuilt.

Other Kayangel residents returned to the island to assist with the reconstruction efforts. The government of Taiwan donated 20 temporary houses to assist Kayangel people while they rebuilt their homes. Japan funded and carried out the reconstruction of a typhoon-proof school, which could double up as a typhoon and tsunami shelter. Overall, the Kayangel community stayed in Koror for around one year, Matsutaro said, which is the time threshold between short-term (3 to 12 months of mobility) and long-term displacement (over a year away from home), according to UN terminology.

«While waiting for homes to be rebuilt, some Kayangel residents found jobs while in Koror,» Matsutaro says. «They earned enough income to make a living so they have since settled in Koror, although they travel to Kayangel to visit from time to time.»

¹⁴ The story of Ungilreng Takawo is based on a private interview supplied to the author by Palau's Ministry of Natural Resources, Environment & Tourism and the documentary *After the Storm* (2013) by Witham, L., and Wentworth, K. for Film Truth Productions.

¹⁵ Thomson, P. (2013, November 14), «In Palau, a Glancing Blow from Typhoon Haiyan Prompts a Glance toward Climate Change», *The World*, available at: www.pri.org/stories/2013-11-14/palau-glancing-blow-typhoon-haiyan-prompts-glance-toward-climate-change (accessed 15 July 2020).

In 2020, Kayangel is still recovering. Water access has particularly been affected, after the storm caused saltwater to intrude into the island's main well. Reverse osmosis is required. Taro patches are also still recovering. Freak storms are far from the only problem Kayangel faces on a warming planet. As an atoll island, it is among Palau's most vulnerable islands to sea-level rise. In 2009, Palau's president, Johnson Toribiong, warned that the state could cease to exist by 2100 if the sea-level rise advances one metre from its current level. Save for such an extreme scenario, the prospects for relocation appear to be out of the question to most.

After asking her what she would do if the sea rose, *The World* journalist Ari Daniel later reported that a woman said she would set up shop in a boat «because she's Palauan and she plans to stay here.»

Ngoriakl raises a more profound question. «If they relocate from Kayangel to another state, would they still be Kayangel people? What happens to their identity and history?»

Repopulating Tobi Island: A dream sunk by rising sea levels

Former Tobian governor Thomas Patris has a dream: Play a part in repopulating Tobi. Located more than 600 km from Koror, the island is part of a group of five oceanic islands and one coral atoll, Helen Reef, known as the Southwest Islands. At 0.85 km², it is but a minuscule dot in the Pacific. At an administrative level, Tobi and Helen Reef form Hatohobei state – the southernmost state of the Republic of Palau. Travelling there from Babeldaob requires a two-day journey by boat. Its current population stands at 29 people, rising to around 40 people during the school term.

It wasn't always like this. Back in the early 20th century, a German ethnographic expedition¹⁶ marked the population at slightly under 1,000 inhabitants. The island was self-sufficient, surviving on a gardening and fishing base. But population density and remoteness put it at the mercy of storms and disease. In the 1930s, there was a slow trickle of people to the Echang hamlet on the outskirts of Koror – currently known as the Southwest Island settlement. Tobians took part in the nascent cash economy, interacted with the Catholic mission and enjoyed government-funded access to education and health.

Meanwhile, back on Tobi, by the 1950s people had incorporated several features of life in Koror with their traditions. A church brought everyone together twice a day, children attended school and a clinic dispensed medical care. Producing a small amount of copra – the dried meat or kernel of the coconut – brought in enough cash so that the necessities and even some luxuries that could not be produced locally could be purchased from the ship. There was still no electricity,

16 Eillers, A. (1936), *Tobi In Ergebnisse der Südsee Expedition 1908–1910. II. Ethnographie: B. Mikronesien Band 9. Westkarolinen 2. Halband: Tobi und Ngulu. Georg Thilenius ed.*, Vol. 9 (Hamburg: Friederichsen, De Gruyter & Co. m.b.H.), p. 44.

Koror, the most populous island and commercial centre of Palau, is a common destination for migrants from the outer islands





Photo: © Mark Priest

running water or any communication with the outside world apart from the occasional government ship or the even more seldom seen fishing boat from Taiwan or Japan. But Tobian society increasingly oscillated between the two islands.

That fragile equilibrium came to a halt with the closure of the nursery and school in the 1980s, prompting Tobians to move back to Koror. In 1994, Palau's independence brought an end to regular publicly funded shipping, precipitating the exodus further. These days, more than 150 Tobians currently live in Koror, whereas Tobi's population can jump from 20 to a high of 60 people during the island's school term, according to Patris.

However, the cohabitation with other Palauans is far from idyllic. Like many Palauans, Tobians' land in Echang was handed to them under colonial rule and is vulnerable to repossession under the country's complex land titles system. Tobians can also suffer from discrimination from the main islanders. As a result, although only 70 per cent of the population lived in Tobi or Helen Reef as children, a 2009 report¹⁷ found 81 per cent of Tobians wanted to move back to Tobi or Helen Reef.

«It is important to understand that this dream [of repopulation] acquires its force not merely from nostalgia for a lost Eden, or romantic discontent with mundane reality,» ethnologist Black writes. «It also arises from the tenuous position Tobians occupy in Palau.»

«Where would they go?» Black asks as he considers a repossession of the Southwest Island settlement in Koror. «Some have Palauan relatives, from whom they might acquire land upon which to relocate, many do not.»

Tobians have attempted to revive the island in the past years. When Patris was elected governor in 2009, fewer than 10 people lived there. He and other Tobians reopened Tobi's elementary school with support from the Department of Education. In 2012–2013, a fortuitous drop in transport costs lured more people back.

«When they opened the school, I was really surprised to have so many students,» Patris says. «There were 10 students,» he tells me via video link. Tobian elders, he adds, have run a series of workshops to teach traditional skills, such as how to weave fishing lines from tree bark and baskets from coconut leaves.

«At the moment, Tobians [in Koror] see that island, and they're controlling Helen Reef – which is very rich in resources,» says Black. «That is their future, if they can somehow manage to hang out in Palau and establish themselves better there, have this Southern place, where they can go spend time, go there and raise kids.»

«What's working against them is climate change,» Black says. «This is like a reverse migration, which is politically, culturally and even economically promising, but the island itself – the physical place – has been badly hit by warming.»

Tobi is eroding away. Rising tides wrench coconut trees off the southern tip of the island and tease dangerously close to the island's only taro patch. The island's

17 Oldiais, N., Ngiraiwet, A., Patris, P., Ngirkuteling, B., Polloi, C., Rekemsiik, D., ...Andrew, W. (2009), *Helen Reef and the Hatohobei Community: SEM-Pasifika Socioeconomic Assessment Report* (National Oceanic and Atmospheric Administration, Coral Reef Conservation Program, Palau International Coral Reef Center, and Helen Reef Resource Management Office).

current governor, Huana Nestor, predicts houses close to the beach in the south will need to be relocated in 10 to 15 years, and he worries about the vulnerability of Second World War historical sites to rising tides.

«They were people who surveyed their land and put a marker on it,» Patris says. «But last year when we went down, their land had already washed again. The cement marker they had put was in the reef. That's how bad it is.»

Located 70 km east of Tobi, Helen Reef is the most threatened land location in the Republic of Palau, according to Palau's Coral Reef Research Foundation.¹⁸ Situated on a sandbar, the island has moved and eroded considerably over the past decades. It is uninhabited, save for a marine ranger station with a staff of three.

Rising sea levels also put pressure on the island's only freshwater lens, resulting in salinated water. «At this time, it is not drinkable, whereas it used to be before,» Nestor says. «When we use the wells to do laundry, the soap doesn't get suds as it used to because of the high salinity.»

Fish, which are another key element for Tobians, are also growing scarce. «It's not like it was before, when you just dropped a line and could catch a fish,» Patris says. «Nowadays you have to wait for the fish to bite your hook.» Tuna, the staple fish, is also becoming rarer. «Last week there was no tuna, only barracuda and wahoo.»

Patris worries about the impact of global warming on the local corals. «Once the coral is gone, then the small fish are gone and then the big fish will be too.»

Potential adaptive solutions for Hatohobei include an airstrip and seawall, though here too funds and technical expertise are lacking. «We keep singing about the need for planning for climate change and the future of Tobi, but without funding it's incredibly difficult,» she says.

«Personally, I see little chance of that [repopulation] dream becoming reality, but you never know,» Black writes. «Talk of an airstrip comes and goes but, along with the perennial notion of creating some kind of tourist operation, remains in the category of «ideas to help the island» – plans which function to show that those promoting them are public-spirited but are not within the realm of practicability.»

«The people who are staying there just hang on to what they have now,» Patris says. «But they know that someday the island will disappear, will be washed away unless there is a big change in climate change.»

Discussion

This report has demonstrated that climate change has started to shape migration in Palau – at least at an internal level. Of the three stories mentioned above, the most tangible example has been that of medium-term mobility in the case of the relocation of the Kayangel people in Koror in the wake of Typhoon Haiyan. An unspecified

¹⁸ Patris, S., and Colin, P. (n.d.), «Island Erosion and Migration in Tobi (Hatohobei) State, Palau», Coral Reef Research Foundation, available at: <https://coralreefpalau.org/education/posters> (accessed 15 July 2020).

number of them, according to the government, have settled on the mainland for the long term after taking up jobs.

Other cases are less quantifiable. In Koror, one can only speculate as to how many would have moved from the coast to the higher inlands in the presence of, among other factors, higher incomes, sound infrastructure and land ownership laws. And how to count the number of Tobians who would have shared Patris' dream and settled on Tobi Island in a world free of warming? The one certainty we can cling to is that Palauans are unwilling to leave their land.

Thus, even though the sea occasionally spoils her taro, relocation towards the higher ground appears unthinkable to Yano. «I have seven taro patches,» she explains. «Most of them are higher up, but that one closer to the ocean has a nicer colour than the other ones.» The patch is also close to her house, where she wishes to spend her late years, she adds. Both people and country continue to favour in situ adaptation over migration as a response to the climate crisis.

«My remedy is to use the Giant Swamp Taro leaves to help block the salt water from entering,» Yano continues. «It's not perfect and sometimes the saltwater still gets in, but I've learned that if I wait for rain for three to four months, the saltiness of the soil will eventually go away and then I am able to plant again,» she says, adding that she would be interested in learning about salt-resistant varieties of taro crops.

Yano's rooted resilience extends to national policy. Palau is internationally renowned for its sustainable leadership. In 2016, it became the second country in the world, after Fiji, to ratify the Paris Agreement to limit global temperature rise to well below 2° C following a 2015 framework climate law.¹⁹

In January 2020, it closed 80 per cent of its waters to commercial fishing – an area roughly the size of France – in a flagship Marine Sanctuary policy in order to allow coral reefs to recover and protect coastal areas against the impacts of climate change. The government has launched a national housing programme for displaced families, with the aim to actively include the affected population in the adaptation planning process. Among the programme's aims is the relocation of households affected by inundation in nine states. Contemporary construction permit requirements also call for more housing to be elevated.

However, top-down directives popular with international NGOs do not always fit with local realities, as evidenced when Ngoriakl makes a call to «balance conservation and the lives of the people». The chief of staff points out that a 2003 conservation policy that sought to protect 30 per cent of Palau's near-shore marine environment by 2020 has driven people that used to fish «to move to buying frozen chicken, or fish illegally».

Tarita Holme, an environmental consultant who has advised on climate policy for the Palau National Marine Sanctuary and the United States Agency for

19 Government of Palau (2015), *Palau Climate Change Policy for Climate and Disaster Resilient Low Emissions Development*, available at: https://chm.cbd.int/api/v2013/documents/6A6546C6-0283-0455-5974-30F4B8A2F29E/attachments/Climate%20Change%20-%20PalauCCPolicy_LowResolution.pdf (accessed 15 July 2020).

International Development, also calls for climate funding to broaden its eligibility criteria in a bid to ease adaptation. Holme points to an invasive macaque in the south-western island of Anguar that has caused 12 bird species to desert the island.

«People from island conservation who deal with invasives have said: «While it's just on this island we have a chance to address it. But if it gets out and goes to Babeldaob, then there's no way to get rid of it.» She adds that the macaque could damage crops and ultimately food security. According to Holme: «It's so hard to find funding to address that issue, because all of the funding is in climate change and the... donors don't realise that this is [part of] our adaptation deficit.»

Although the sea may be rising, Ngoriakl wants to believe that the tide is turning at home. «I spend a lot of time with younger people – the Generation Z,» she says. «It's interesting because they're not like us, the millennials... We left. Now there's demand to make the only community college into a university so that they can stay here and learn here.»

Mobility and climate justice in the Mashriq

Today, we have a better understanding than ever of the social phenomena associated with anthropogenic climate change, especially climate-related human mobility. Research has confirmed that climate change mostly engenders South-South movements,¹ internal displacement within the so-called Global South² and immobility,³ thus essentially debunking the ongoing securitisation of so-called climate migration to the Global North.⁴ Studies have also underlined that the effects of climate change play out differently for already disenfranchised or marginalised groups and elites, and that this discrimination is rarely sufficiently addressed in negotiation processes linked to the issue of climate change.⁵

This raises questions of both climate and mobility justice. The concept of mobility justice underlines that access to mobility is experienced unequally, along intersectional categories such as gender, race, religion, age or socio-economic status.⁶ The concept of climate justice highlights the fact that although climate change is caused mainly by industrialised states, developing states bear the brunt of its

- 1 Weber, E. (2015), «Envisioning South-South Relations in the Fields of Environmental Change and Migration in the Pacific Islands – Past, Present and Futures», *Journal of the Global South* 2(1).
- 2 Foresight (2011), *Migration and Global Environmental Change* (London: The Government Office for Science).
- 3 Black et al. (2013), «Migration, Immobility and Displacement», *Environmental Science and Policy* 27(S1), S32–S43; Zickgraf, C., and Perrin, N. (2017), «Immobile and Trapped Populations», in Gemenne, F., Ionesco, D., and Mokhnacheva, D. (eds.), *Atlas Der Umweltmigration*, pp. 44–46 (München: oekom).
- 4 For a recent rendering, see Lustgarten, A. (2020, July 23), «The Great Climate Migration Has Begun», *The New York Times*, available at: www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html (accessed 29 July 2020).
- 5 Kaijser, A., and Kronsell, A. (2014), «Climate Change through the Lens of Intersectionality», *Environmental Politics* 23(3), 417–33.
- 6 Sheller, M. (2018), *Mobility Justice: The Politics of Movement in an Age of Extremes* (London and Brooklyn, NY: Verso).

impacts,⁷ without adequate resource transfers, development assistance or equitable donor-recipient relationships.⁸

This contribution explores how different aspects of mobility and climate justice play out in the Mashriq,⁹ a geographic region that Encyclopaedia Britannica defines as comprising the modern states of Egypt, Sudan, the Gulf states, Israel, Palestine, Jordan, Lebanon, Syria and Iraq.¹⁰ The region is a prime example of the effects of anthropogenic climate change. It illustrates that how a society, state or individual is impacted by climate change depends on socio-economic and political conditions, and/or individual positionality. Studying the Mashriq thus provides an avenue to better understanding the interplay between climatic and non-climatic pressures, thereby offering a more comprehensive approach to questions of justice in the context of a changing climate.¹¹

Climate change in the Mashriq

Like many other regions of the world, the Mashriq has been suffering from a rising average temperature, increasingly erratic precipitation patterns, sea-level rise, and an increase in both severity and frequency of extreme weather events such as heat waves, droughts and floods.¹² Climatic pressures are expected to increase further in the coming years and decades¹³ and will likely impact water supply, crop production, health and economic growth.¹⁴ For instance, the densely populated coastlines along the Red, Arabian and Mediterranean seas with their fertile coastal lands, shallow lagoons and fisheries are increasingly vulnerable to sea-level rise and

- 7 Sowers, J. (2019), «Understanding Climate Vulnerability in the Middle East and North Africa», *International Journal of Middle East Studies* (October), 1–5.
- 8 Klepp, S., and Herbeck, J. (2016), «The Politics of Environmental Migration and Climate Justice in the Pacific Region», *Journal of Human Rights and the Environment* 7(1), 54–73; Tanner, T., and Allouche, J. (2011), «Towards a New Political Economy of Climate Change and Development», *IDS Bulletin* 42(3).
- 9 Using «Mashriq» rather than «Near East» or «Middle East» helps to avoid the Eurocentric and orientalist connotations of the latter terms. For a discussion, see Culcasi, K. (2010), «Constructing and Naturalizing the Middle East», *Geographical Review* 100(4), 583–97.
- 10 The editors of the Encyclopaedia Britannica (n.d.), «Mashriq | geographical region, Middle East», *Encyclopaedia Britannica*, available at: www.britannica.com/place/Mashriq (accessed 30 July 2020).
- 11 Mason, M., Zeitoun, M., and Mimi, Z. (2012), «Compounding Vulnerability: Impacts of Climate Change on Palestinians in Gaza and the West Bank», *Journal of Palestine Studies* XLI(3), 38–53.
- 12 IPCC (2014), «Asia», in Barros, V.R. (ed.), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* available at: www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap24_FINAL.pdf, p. 1333.
- 13 Al-Saidi, M. (2020), «Contribution of Water Scarcity and Sustainability Failures to Disintegration and Conflict in the Arab Region – the Case of Syria and Yemen», in Amour, P.O. (ed.), *The Regional Order in the Gulf Region and the Middle East: Regional Rivalries and Security Alliances*, pp. 375–405 (Cham: Springer International Publishing).
- 14 IPCC (2014), «Livelihoods and Poverty», chapter 17 in *IPCC Report 2014, Part A: Global and Sectoral Aspects*, available at: www.ipcc.ch/report/ar5/wg2/livelihoods-and-poverty.

salinisation (Egypt, Gaza, Israel and Lebanon are cases in point).¹⁵ Also, changing and inconsistent rain patterns will likely affect water availability and, thus, water utilisation – a development that led to a decrease in agricultural productivity, and even agricultural collapse, in parts of the region in the past.¹⁶

Although the peoples of the Mashriq have been adapting to changing climates for centuries, the speed and severity of anthropogenic climate change is creating new and unprecedented challenges.¹⁷ This situation is exacerbated by the relative ability (and willingness) of regional governments to adapt to and mitigate climate change impacts. The World Bank's *World Development Report 2007* attests that countries in the Mashriq (and the Maghreb) not only suffer from physical resource scarcity, for instance of water, but that they are also characterised by a lack of both organisational capacity and accountability, which points to a breaking or broken social contract between the regional populations and their governing institutions and actors. Specifically, researchers diagnose regional public agencies with «overlapping and unclear functions or difficulties in coordinating», as well as a «lack of a sound institutional environment».¹⁸ Although it is important to reflect on what is considered a «sound institutional environment» by whom, this diagnosis illustrates that while climate change effects are real in the Mashriq, the incapability or unwillingness of regional states to adapt to and mitigate the changing conditions is just as big of a problem.¹⁹

In addition, if and when efforts to mitigate climate change are made, pre-existing power structures within a state – together with the state's position within the international system – moderate who benefits from these efforts. Consequently, the responses of states in the Mashriq to climate change need to be understood as being embedded in specific North-South relations, pre-established patterns of international cooperation, as well as pre-existing sub- and international conflicts. For instance, a state's capacity to adapt to climate change often hinges on economic power: Economically weaker states, which are often less integrated into the global economy, have fewer options than rich(er) states. Post- and decolonial approaches help us to ask critically why states outside of the Global North often have less economic (and political) power, pointing to historically grown disbalances and inequalities in the international system. The effects of climate change can be outweighed by such power structures, for instance in the cases of Israel and Palestine, where Palestinian livelihoods are impacted far more severely by the effects of the Israeli occupation than by climate change (without wanting

15 Sowers, J. (2019), «Understanding Climate Vulnerability» (see note 7).

16 Wodon, Q. et al. (2014), «Climate Change, Migration, and Adaptation in the MENA Region», in Wodon, Q. et al. (eds.), *Climate Change and Migration. Evidence from the Middle East and North Africa*, World Bank Studies, pp. 3–35 (Washington, DC: World Bank).

17 Verner, D. (ed.) (2012), *Adaptation to a Changing Climate in the Arab Countries: A Case for Adaptation Governance and Leadership in Building Climate Resilience*, MENA Development Report (Washington, DC: World Bank), p. 9.

18 Al-Saidi, M. (2020), «Contribution of Water Scarcity» (see note 13).

19 Sowers, J., Vengosh, A., and Weinthal, E. (2011), «Climate Change, Water Resources, and the Politics of Adaptation in the Middle East and North Africa», *Climatic Change* 104(3–4), 599–627.

to negate climate change impacts in the Jordan River basin).²⁰ Importantly, the unprecedented severity of global warming can be used to «greenwash» such pre-existing power structures, effectively blaming climate change for worsening living conditions without acknowledging the role of political decision-making for those very conditions.²¹

It is therefore crucial to look at environmental change and responses to it not as separate from, but as integral to politics, both on the domestic and international levels. For instance, international climate change politics increasingly utilise climate policies as a new tool of governance,²² for example by investing in climate-related interventions such as adaptation and mitigation measures, or by conditioning aid on climate policy reform. One example is the Paris Agreement of 2015, which was signed by all states of the Mashriq except war-ravaged Syria. The treaty promises new sources of financing and incentives for low-carbon development decisions to developing states and states that depend on fossil fuel exports.²³

What is more, both national and international climate change policies can result in second-order effects of climate change, which are often neither recognised nor transparent. For instance, the (re-)nationalisation of natural resources or economic sectors can affect control of – and access to – resources and livelihoods for parts of a population or society.²⁴ Also, with a rise in awareness about climate change, the voices of international and non-governmental organisations grow stronger and can start to influence the power-knowledge nexus that is central for climate and adaptation politics.²⁵ Problematically for both trends, however, power relations on the ground and local, indigenous knowledge are rarely considered; in the worst case further weakening already marginalised and vulnerable populations.²⁶

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- 20 Mason, M., Zeitoun, M., and Mimi, Z. (2012), «Compounding Vulnerability: Impacts of Climate Change on Palestinians in Gaza and the West Bank», *Journal of Palestine Studies* XLI(3), 38–53.
- 21 This has happened in Syria, for instance: Fröhlich, C. (2016), «Climate Migrants as Protestors? Dispelling Misconceptions about Global Environmental Change in Pre-revolutionary Syria», *Contemporary Levant* 1(1), 38–50.
- 22 Klepp, S., and Chavez-Rodriguez, L. (eds.) (2018), *A Critical Approach to Climate Change Adaptation: Discourses, Policies, and Practices* (London and New York, NY: Routledge/Taylor & Francis Group).
- 23 Sowers, J. (2019), «Understanding Climate Vulnerability» (see note 7).
- 24 Hein, J. (2020), *Political Ecology of REDD+ in Indonesia: Agrarian Conflicts and Forest Carbon* (n.p.: Taylor and Francis).
- 25 Morchain, D. (2018), «Rethinking the Framing of Climate Change Adaptation : Knowledge, Power, and Politics», in Klepp, S., and Chavez-Rodriguez, L. (eds.), *A Critical Approach to Climate Change Adaptation: Discourses, Policies, and Practices* (London and New York, NY: Routledge/Taylor & Francis Group); Eriksen, S.H., Nightingale, A.J., and Eakin, H. (2015), «Reframing Adaptation: The Political Nature of Climate Change Adaptation», *Global Environmental Change* 35, 523–33; Cameron, E.S. (2012), «Securing Indigenous Politics: A Critique of the Vulnerability and Adaptation Approach to the Human Dimensions of Climate Change in the Canadian Arctic», *Global Environmental Change* 22(1), 103–14.
- 26 Klepp, S., and Fröhlich, C. (2020), «Migration and Conflict in a Global Warming Era: A Political Understanding of Climate Change», *Social Sciences* 9(5), 78 (Multidisciplinary Digital Publishing Institute).

Climate change and human mobility in the Mashriq

Mobility, that is, the ability to change one's place of residence if needed (or wanted), is one of many ways of adapting to the effects of climate change. Environmentally induced mobility is not new. In the history of mankind, people have always responded to changing climatic conditions by moving out of one region and to another.²⁷ This option is not available for everyone, however; under some circumstances, climate change can also constrain mobility, raising questions of mobility justice. It is therefore crucial to ask who can move, and who cannot, in any given context.

Despite its deep entwinement with human society, a unified theoretical approach to environmentally-induced human mobility is still lacking. For instance, differences between a) climate variability and climate change, and b) responses to the two phenomena are often not adequately represented. Similarly, the differences and similarities between mobility in the context of slow- (rising temperature, droughts, land degradation) or fast-onset events (floods, storms, hurricanes) are still unclear.²⁸

Impacts of fast-onset events such as hurricanes, torrential rains, floods and landslides on human movement are comparatively easy to determine. Research shows that, in most such cases, displacement tends to be temporary and over short distances.²⁹ This is often due to the fact that, in poor(er) countries, victims of such events do not have the resources to migrate over long distances, again pointing to issues of mobility justice.³⁰ Mobility following a fast-onset event is often short-term, as the majority of people return as soon as possible to rebuild their properties. In fact, this is one of the few points that research is in relative agreement on,³¹ so that judging from past fast-onset events, they can be considered unlikely to cause significant long-term and long-distance movement, especially across international borders.³²

Slow-onset events such as drought, desertification and a rise in temperature are generally associated with more gradually progressing movements. Here, research findings are less consistent. Although there are many well-documented cases of mass departures (predominantly internal displacement) in response to drought,

27 Romm, J. (2011), «The Next Dust Bowl», *Nature* 478(7370), 450–51; Marris, E. (2014), «Two-Hundred-Year Drought Doomed Indus Valley Civilisation», *Nature* (March).

28 Cattaneo, C., Beine, M., Fröhlich, C., Kniveton, D., Martinez-Zarzoso, I., Mastrorillo, M., ... Schraven, B. (2019), «Human Migration in the Era of Climate Change», *Review of Environmental Economics and Policy* (June).

29 McLeman, R. A., and Gemenne, F. (2018), *Routledge Handbook of Environmental Displacement and Migration* (New York, NY: Routledge).

30 Lonergan, S. (1998), «The Role of Environmental Degradation in Population Displacement», *Environmental Change and Security Project Report* (4), 5–15; Zickgraf and Perrin (2017), «Immobile and Trapped» (see note 3).

31 McLeman and Gemenne (2018), *Routledge Handbook* (see note 29).

32 Cattaneo et al. (2019) «Human Migration» (see note 28).

also in the Mashriq,³³ other researchers have argued that the migration numbers are small compared to the number of people impacted by drought, pointing out that environmental change is just one of many factors influencing migration decisions.³⁴ In some cases in the Mashriq – pre-revolutionary Syria specifically – migration has even been shown to be more a function of political issues than associated with environmental issues, despite contrary claims in prominent discourses.³⁵ What is more, droughts and other slow-onset events can also reduce movement, especially in poor countries with liquidity constraints.³⁶

The picture is further complicated by the many forms human mobility can take, ranging from internal to international, and from seasonal and short-term to permanent. Migration is also influenced by different factors that are highly context-dependent, including migration history and the interaction between economic, political, demographic, social and environmental factors in origin as well as destination countries.³⁷

One way of approaching these complex relationships and assumed linkages is to look at how climate change interacts with phenomena that research has identified as influencing human mobility. Economic conditions are among them, especially income differentials (differences in the return to labour between origin and destination) and income variability (fluctuations in income over time).³⁸ For instance, economic growth has been found to be negatively impacted by worsening climatic conditions.³⁹ Although most studies do not focus on the Mashriq – as the data situation is often less than ideal – some of these research findings can likely be extrapolated to this region. For instance, one study finds that in sub-Saharan states, rainfall was a significant negative influence for economic growth,⁴⁰ meaning that less rain equals less income, resulting in a) a widening income gap between origin

- 33 Miyan, M.A. (2015), «Droughts in Asian Least Developed Countries: Vulnerability and Sustainability», *Weather and Climate Extremes* 7, 8–23; Piguët, E., and Laczko, F. (eds.) (2014), *People on the Move in a Changing Climate: The Regional Impact of Environmental Change on Migration* (Dordrecht: Springer).
- 34 Smith, K. (2013), *Environmental Hazards: Assessing Risk and Reducing Disaster* (Routledge); Black, R. et al. (2011), «The Effect of Environmental Change on Human Migration», *Global Environmental Change* 21, S3–S11; Martin, M. et al. (2014), «Climate-related Migration in Rural Bangladesh: A Behavioural Model», *Population and Environment* 36(1), 85–110.
- 35 Fröhlich, C. (2016), «Climate Migrants» (see note 352); Selby, J. et al. (2017), «Climate Change and the Syrian Civil War Revisited», *Political Geography* 60, 232–44.
- 36 Cattaneo, C., and Peri, G. (2016), «The Migration Response to Increasing Temperatures», *Journal of Development Economics* 122, 127–46; Gröschl, J., and Steinwachs, T. (2017), «Do Natural Hazards Cause International Migration?», *CESifo Economic Studies* 63(4), 445–80.
- 37 Cattaneo et al. (2019) «Human Migration?» (see note 28); Black (2011), «The Effect» (see note 34); Martin (2014), «Climate-related Migration» (see note 34).
- 38 Lilleør, H.B., and Van den Broeck, K. (2011), «Economic Drivers of Migration and Climate Change in LDCs», *Global Environmental Change* 21, S70–S81.
- 39 Dell, M., Jones, B.F., and Olken, B.A. (2009), «Temperature and Income: Reconciling New Cross-sectional and Panel Estimates», *American Economic Review* 99, 198–204.
- 40 Barrios, S., Bertinelli, L., and Strobl, E. (2010), «Trends in Rainfall and Economic Growth in Africa: A Neglected Cause of the African Growth Tragedy», *Review of Economics and Statistics* 92, 350–66.

and destination countries, and b) an increase in mobility of those who depend on consistent precipitation, that is, especially farmers and herders.⁴¹

However, as mentioned above, liquidity constraints can also limit mobility options, pointing to mobility injustices related to socio-economic status.⁴² Poor people have higher incentives to migrate, as they are often highly vulnerable to the impacts of climate change, but they have little to no capacity to adapt. At the same time, they lack the resources to cover the cost of moving in a planned, more long-term way. They are thus doubly at risk, not being able to move away from environmental crises while also having few resources to mitigate their impact.⁴³ Although this often results in precarious immobility,⁴⁴ it can also result in «crisis» or «survival migration».⁴⁵

That increasing migration can be a result of decreasing agricultural productivity has been shown, for instance, for international mobility towards states belonging to the Organisation for Economic Co-operation and Development (OECD).⁴⁶ Also, a decrease in income caused by natural disasters (connected to both climate change and other anthropogenic activity) can lead to higher numbers of internally displaced people, as well as greater levels of international mobility.⁴⁷ In fact, the prospect of losing income, or of lasting income variability, can already lead to higher levels of mobility, again especially for households depending on agricultural activity, as has been shown for Syria as well as other states in the Mashriq.⁴⁸ This is often internal and seasonal movement.

If income losses are most likely to happen in families and households that depend on agriculture – with the likelihood of migration increasing proportionate to the decrease in land profitability and crop yields – then less-developed states are more likely to suffer from this kind of adverse climate impact, pointing

41 Cattaneo et al. (2019) «Human Migration» (see note 28).

42 Kniveton, D., Schmidt-Verkerk, K., Smith, C., Black, R. (2008), «Climate Change and Migration: Improving Methodologies to Estimate Flows», pp. 29–36, available at: www.iom.cz/files/Climate_Change_and_Migration_MRS_331.pdf; Bryan, G., Chowdhury, S., and Mobarak, A.M. (2014), «Underinvestment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh», *Econometrica* 82(5), 1671–1748; Cattaneo, C., and Peri, G. (2015), «The Migration Response to Increasing Temperatures», Working Paper 21622 (Washington, DC: National Bureau of Economic Research).

43 Foresight (2011), *Migration and Global Environmental Change* (see note 2); Black (2011), «The Effect», *Global Environmental Change* 21, S3–S11.

44 Black et al. (2013), «Migration, Immobility and Displacement» (see note 3).

45 Martin, S., Weerasinghe, S., and Taylor, A. (2014), «What Is Crisis Migration?», *Forced Migration Review* 45, available at: www.fmreview.org/crisis/martin-weerasinghe-taylor%20.html; Betts, A. (2013), *Survival Migration. Failed Governance and the Crisis of Displacement* (Ithaca, NY: Cornell University Press)

46 Cai, R., Feng, S., Pytlikova, M., and Oppenheimer, M. (2016), «Climate Variability and International Migration: The Importance of the Agricultural Linkage», *Journal of Environmental Economics and Management* 79, 135–51.

47 Beine, M., and Parsons, C. (2015), «Climatic Factors As Determinants of International Migration», *Scandinavian Journal of Economics* 117, 723–67.

48 Selby (2017), «Climate Change» (see note 35).

to aforementioned issues of climate justice. Such states often depend much more on agriculture than industrialised states and – due to colonial exploitation and its economic, political and social consequences – are often less capable of adapting to changing climatic circumstances.

The relationship between climate change and human mobility may also be affected by socio-political factors. Here, the linkages between violent conflict and climate change have received a lot of scholarly attention in past years.⁴⁹ Studies are inconclusive, and the often taken-for-granted causality between climate change, conflict and migration/mobility is contested.⁵⁰ In Syria, for instance, some researchers suggest that a «century drought» thought to have been connected to global warming contributed to the 2011 uprising and war by causing massive increases in internal mobility.⁵¹ Such simple and linear causalities have been rigorously questioned, however, highlighting the complex and contextual character of climate, migration and conflict connections.⁵² For other regions, it has also been shown that climate-related conflict not only causes migration, but may also restrict it.⁵³

Social and economic factors also play a role in determining whether climate change translates into mobility in the Mashriq. For instance, climate change affects income differentials between origin and destination countries, and it can increase economic uncertainty, fostering conditions conducive to emigration.⁵⁴ At the micro-level, the individual decision and ability to move away from environmental crisis is influenced by the positionality of the potential migrant, that is, by the socio-economic and political characteristics of the individual, household and community exposed to the climatic events.⁵⁵ This means that intersectional

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- 49 Koubi, V. (2019), «Climate Change and Conflict», *Annual Review of Political Science* 22(1), p. null.
- 50 Abel, G.J. et al. (2019), «Climate, Conflict and Forced Migration» (see note 238); Brzoska, M., and Fröhlich, C. (2016), «Climate Change, Migration and Violent Conflict: Vulnerabilities, Pathways and Adaptation Strategies», *Migration and Development* 5(2), 190–210; Hermans, K., and Ide, T. (2019), «Advancing Research on Climate Change, Conflict and Migration», *Die Erde – Journal of the Geographical Society of Berlin* 150(1), 40–44.
- 51 Femia, F., and Werrell, C. (2012, March 3), «Syria: Climate Change, Drought and Social Unrest», *Think Progress*, available at: <https://thinkprogress.org/syria-climate-change-drought-and-social-unrest-3db624b8dd76>; Gleick, P.H. (2014), «Water, Drought, Climate Change, and Conflict in Syria», *Weather, Climate, and Society*, 6(3), 331–40; Kelley, C.P. et al. (2015), «Climate Change in the Fertile Crescent and Implications of the Recent Syrian Drought», *Proceedings of the National Academy of Sciences* 112(11), 3241–46; Werrell, C., Femia, F., and Sternberg, T. (2015), «Did We See It Coming? State Fragility, Climate Vulnerability, and the Uprisings in Syria and Egypt», *SAIS Review of International Affairs* 35(1), 29–46.
- 52 Ide, T. (2018), «Climate War in the Middle East? Drought, the Syrian Civil War and the State of Climate-Conflict Research», *Current Climate Change Reports* 4, 347–54; Selby (2017), «Climate Change» (see note 366); Selby, J. (2018), «Climate Change and the Syrian Civil War, Part II: The Jazira's Agrarian Crisis», <https://doi.org/10.1016/j.geoforum.2018.06.010>.
- 53 Simpkins, P. (2005), *Regional Livestock Study in the Greater Horn of Africa* (Geneva: International Committee of the Red Cross).
- 54 Cattaneo et al. (2019) «Human Migration» (see note 28).
- 55 Black (2011), «The Effect» (see note 34); Martin (2014), «Climate-related Migration» (see note 34).

characteristics such as individual wealth, gender, age, health, pre-existing migration networks, etc., play a key role.⁵⁶

Gender seems to play a particularly important role for mobility and climate justice in the Mashriq. Unequal gender relations as well as gender-differentiated access to resources and the labour market can render women more vulnerable to climate change impacts, thus increasing the number of reasons for moving. One study reports how female interviewees in the Mashriq recalled how prolonged droughts led to economic difficulties, which made hiring cheap agricultural labour impossible, so that the female (or female-read) members of the household had to start working on the fields in addition to their common chores.⁵⁷ This was cited as a reason for moving away from the countryside. But patriarchal structures may already exclude them from (parts of) the labour market, impairing their ability to move. For instance, if the male (or male-read) members of the household move away before the rest of the family, women are often left to deal with the increased workload at home. For the women who do migrate from the Mashriq, job opportunities are often less attractive than for other members of the household.⁵⁸ Although there is no agreement as to the impact that gender has on human mobility, studies showing that women are migrating less due to climate change⁵⁹ as well as studies showing the opposite⁶⁰ indicate that gender is a key factor for both mobility and climate justice.

Furthermore, whether and how state and non-state actors in a given country address climate change impacts also influences migration decision-making. It is therefore relevant to look at state or government approaches to climate change in the Mashriq. As shown by Sowers, national communications from states in Mashriq «provide little insight into climate inequality or the political and economic factors that structure them».⁶¹ Structural drivers of vulnerability towards climate change are commonly presented as «natural» conditions rather than as effects of policy choices, historical processes, or socio-cultural norms and conventions, thus effectively «greenwashing» vulnerabilities and avoiding responsibility. But rapid population growth, urbanisation trends, migration to urban centres and gender relations

⁵⁶ Sowers, J. (2019), «Understanding Climate Vulnerability» (see note 7).

⁵⁷ Wodon, Q. et al. (2014), «Climate Change» (see note 16).

⁵⁸ Ibid.

⁵⁹ Dillon, A., Mueller, V., and Salau, S. (2011), «Migratory Responses to Agricultural Risk in Northern Nigeria», *American Journal of Agricultural Economics* 93(4), 1048–61; Gray, C., and Mueller, V. (2012), «Drought and Population Mobility in Rural Ethiopia», *World Development* 40(1), 134–45; Mueller, V., Gray, C., and Kosec, K. (2014), «Heat Stress Increases Long-Term Human Migration in Rural Pakistan», *Nature Climate Change* 4(3), 182–85.

⁶⁰ With regard to labour migration, see Gray, C., and Mueller, V. (2012), «Natural Disasters and Population Mobility in Bangladesh», *National Academy of Sciences* 109(16), 6000–05; Thiede, B., Gray, C., and Mueller, V. (2016), «Climate Variability and Inter-Provincial Migration in South America, 1970–2011», *Global Environmental Change* 41, 228–40; Baez, J. et al. (2017), «Heat Exposure and Youth Migration in Central America and the Caribbean», *American Economic Review* 107(5), 446–50.

⁶¹ Sowers, J. (2019), «Understanding Climate Vulnerability», p. 2 (see note 7).

affect how climate risks are distributed and are a direct result of political decisions. For instance, decisions not to fund family planning and social support systems can increase climate vulnerability for certain societal groups.⁶² Similarly, societal movements that focus on issues related to climate change – for instance the environment, pollution or health – are mostly silenced at the national level in the Middle East.⁶³ It is particularly interesting, in light of the upheavals of 2011/12, that the relationship between the various revolutionary movements across the region and climate governance is not identified in national communiqués about climate change from Mashriq states, for instance the individual climate action plans following the Paris Agreement.⁶⁴ Overall, programmes targeting households and communities that are particularly vulnerable and exposed to climate change impacts seem to be the exception rather than the rule throughout the region.⁶⁵ The focus most commonly is on the national and international (meso and macro) levels, often perpetuating existing power structures and risking already dire and worsening living conditions in marginalised and vulnerable communities.

Conclusion

The main limitation for a study discussing climate and mobility justice in the Mashriq is that there is little systematic evidence available to analyse the relationship between climate change and human mobility in the region, as many states do not conduct regular surveys or collect and share other relevant data. This is at least in part due to the fact that such data is considered political, for instance when discussing water availability, utilisation and distribution in the Jordan River basin.⁶⁶ But nonetheless, the mechanisms discussed above have been shown for the Mashriq, too. The relationship between climate and mobility in the region is shaped by whether climate events are slow- or fast-onset, and climate-related mobility differs in terms of duration, space covered and level of voluntariness. In particular, there seems to be a link between slow-onset events such as droughts and increased mobility, as chronic droughts lead to decreasing crop yields, making agricultural activity increasingly less viable.⁶⁷

⁶² Sowers, J. (2019), «Understanding Climate Vulnerability» (see note 7).

⁶³ Sowers, J. (2018), «Environmental Activism in the Middle East and North Africa», in Verhoeven, H. (ed.), *Environmental Politics in the Middle East*, pp. 27–52 (Oxford: Oxford University Press).

⁶⁴ Sowers, J. (2019), «Understanding Climate Vulnerability» (see note 7). See this webpage for all Intended Nationally Determined Contributions: www4.unfccc.int/sites/submissions/indc/Submission%20Pages/submissions.aspx.

⁶⁵ Wodon, Q. et al. (2014), «Climate Change» (see note 16).

⁶⁶ Fröhlich, C. (2012), «Water : Reason for Conflict or Catalyst for Peace? The Case of the Middle East», *L'Europe en Formation* 365(3), 139.

⁶⁷ Wodon, Q. et al. (2014), «Climate Change» (see note 16).

Socio-economic factors are found to be at least as important as changes in climate, however.⁶⁸ As has been shown above, understanding aspects of mobility and climate justice in the Mashriq requires a thorough understanding of the political, economic and social factors that structure climate vulnerability and adaptation or mitigation capacities. Importantly, when discussing these issues in the Mashriq (or any region, for that matter), we need to reflect on two key questions.

The first of these concerns the focus on mobility in the media and policy debates: What does it reveal, and what does it hide? In addressing this issue, when discussing mobility and climate justice, we need to remember that movement away from environmental risk is just one possible strategy for adapting to climate change – and one that is not available to everyone. Also, although increased mobility in response to changing climatic conditions is commonly considered a key adaptive strategy by those who undertake it,⁶⁹ it can also be interpreted as a failure to adapt, occurring only when all else has failed. For instance, an increasingly precarious life in the countryside, including lack of water, food, income and jobs, has been reported to lead to family members working the fields instead of going to school, to the whole family eating less, and to selling assets – before migration was even considered.⁷⁰ In both cases, however, it is necessary to reflect on why mobility is deemed positive or negative, and by whom.

Alternatively, increased mobility could be seen as an option to diversify adaptive capacities, for instance by giving household members the opportunity to build new knowledge on agricultural innovations through education, which can help family members at home better adapt to changing environmental conditions. This can happen through shared new knowledge, for instance about more climate-resilient crops, less water-intensive irrigation methods or new techniques of crop and feed preservation. It may also happen through direct money transfers (remittances), which can help alleviate income fluctuations or losses in the place of origin. But each of these adaptive measures is limited by the state of mobility and climate justice in the respective states. Not everyone can move, even when at extreme risk, and not every state can adapt to climate change in an effective and targeted way.

The second question we must ask relates to changing conceptions of «human» affairs in our era, a moment at which the relationship between natural, social and political science is being rethought. This last problem can be summarised as follows: What does the focus, in mainstream political and media debates, on *human* mobility in the context of *man-made* global warming hide with regard to nature and the planet as a whole? As addressing this question is beyond the scope of this chapter, I close by raising it to invite reflection upon the fact that vulnerability

68 Grant, A., Burger, N., and Wodon, Q. (2014), «Climate-Induced Migration in the MENA Region: Results from Qualitative Fieldwork», in Wodon, Q., Liverani, A., Joseph, G., and Bougnoux, N. (eds.), *Climate Change and Migration: Evidence from the Middle East and North Africa* (Washington, DC: World Bank).

69 McNamara, K., Bronen, R., Fernando, N., and Klepp, S. (2018), «The Complex Decision-Making of Climate-Induced Relocation: Adaptation and Loss and Damage», *Climate Policy* 18,111–17.

70 Wodon, Q. et al. (2014), «Climate Change» (see note 16).

to climate impacts is by no means limited to humans. On the contrary, in the Anthropocene, it has become plainly evident that human life cannot be sustained without extending equal care to nature in all its facets. Climate change will continue to affect both human and non-human life on this planet, including increasing rates of extinction, new patterns of mobility of flora, fauna, water, fire and so on.⁷¹ Examples from the Mashriq include the effect of invasive species on biodiversity in the Jordan River basin,⁷² and an increase in forest fires across the region, for instance in Iran.⁷³ Efforts to achieve climate justice and mobility justice therefore need to engage with the movement for non-human life and climate vulnerability, too.

71 Baldwin, A., Fröhlich, C., and Rothe, D. (2019), «From Climate Migration to Anthropocene Mobilities: Shifting the Debate», *Mobilities* 14(3), 289–97.

72 See www.biodiv.be/jordan/biodiversity/species-diversity/invasive-and-introduced-species-1/invasive-and-introduced-species (accessed 20 August 2020).

73 Hadian-Jazy, T. (2020, July 20), «The Forest Fires in Iran That Won't Stop Burning», *Atlantic Council*, available at: www.atlanticcouncil.org/blogs/iransource/the-forest-fires-in-iran-that-wont-stop-burning (accessed 20 August 2020).

Under the climate radar: Disaster and displacement in the Bengal Delta

For decades, coastal erosion has been rampant in the Bengal Delta, which spans much of the Indian state of West Bengal and neighbouring Bangladesh. Deltas like this one are highly dynamic landscapes – the erosion of soft muddy lands at the hand of estuarine waters is met, or even outweighed, by the accretion of fresh soil. On many of the coastal margins of this vast delta today, erosion outweighs accretion, by far.

Alongside storms ploughing through this area with increasing velocity, erosion is a serious threat to life on the coastal margins. It threatens the much-revered tiger population roaming what remains of the mangrove swamps, as is well-known internationally thanks to media coverage and high-profile campaigns by the International Union for Conservation of Nature. The equally menacing danger it poses to resident farmers and fishermen eking out a living in the densely populated, sinking and shrinking parts of the delta inhabited by low-income rural populations is rather less publicised. Displacement by increasingly turbulent river and sea water is the order of the day. Every year, a number of families lose land to an advancing sea. The land is eroding slowly but continuously due to diurnal tides, spring tides, the turbulence of the monsoons and recurrent storm surges. Every year, a number of families lose all their remaining land. Reduced to homeless paupers, they seek refuge in makeshift roadside huts or with sympathetic family, or they end up migrating to the slums of nearby cities.

The Bengal Delta is among the poster children of climate change. The unfolding tragedies associated with the delta offer a preview – or so the story goes – of the potentially crisis-ridden plight of many other coasts in the not too distant future. Although it certainly is true that anthropogenic sea-level rise is taking its toll, climate change is just one of a number of dynamics causing the rapid erosion of land on these shores. Others relate to the natural growth trajectory of this delta, human interventions in the form of embankments and barrages, and the silting of estuaries through excess sedimentation caused by intensive agriculture in the plains.¹

1 Chakrabarti, D.K. (2001), *Archeological Geography of the Ganga Plain: The Lower and the Middle Ganga* (New Delhi: Permanent Black).

For those who must confront the consequences of eroding shorelines, debates on what is making the waters so belligerent and voracious are academic. The concerns of people forced to deal with failing embankments, recurrent floods and the disappearance of land remain largely unaddressed by state institutions and NGOs charged with delivering humanitarian assistance. Despite its widespread impacts – and the fact that it is experienced as calamity by those affected – coastal erosion goes under the radar of disaster governance. Consequently, little is known about the plights of people holding out at the very edge of India's most severely eroding coastline. How might consideration of their anxieties and hopes shape an agenda for social justice that encompasses some of the less visible manifestations of climate-related injury and loss? And how might it compel us to broaden our understanding of disaster and disaster preparedness?

Maiti² and his family tried to hold out. A few years before we first met, the rough brackish waters of the Indian Ocean felt far away. Now the sea stalks them. The part of the village in which they live used to be tucked behind rows and rows of houses, gardens, ponds and fields. All fell victim to coastal erosion. They have been encroached upon by the shore, they say, dragged into its direct reach – its waves, currents and winds. Marooned on an exposed corner of a battered island, there is little hope that their home will survive the water's inland march for much longer.

Like thousands of villages in the delta, theirs depends on a ring embankment. Ideally, it is supposed to keep the tides out, preventing the salinisation of fields and swamping of homes. But on my last visit, this essential outer embankment lay in tatters. Its poor condition, I learnt, was not unusual. It is rebuilt every year, only to collapse a few months later. As a consequence, the stretch between the outer embankment and the next one to the interior is flooded regularly. Saltwater intrusion has eliminated agriculture. The floods and tides continue to level the terrain, diligently washing out what is left of this part of the village. All know that the retreat of the outer embankment is imminent – that this stretch will not be saved. Villagers fume at the state for the neglect. Local politicians exclaim that their hands are tied by empty coffers and the funding priorities of development authorities and ministries. The outer embankment is continually being rebuilt with the cheapest, least durable materials, such as mud, wood and bamboo.

This is not the first time Maiti has had to weather disaster. Everyone in the village has sustained severe damage from tropical cyclones and devastating surges. But loss from erosion is of a different order. That which breaks in a storm, I hear people exclaim, can be mended, replanted or rebuilt from scratch. Erosion, however, takes the land for good. The ground under one's feet is washed away, homesteads lost and agrarian futures undone.

The government or humanitarian assistance that is supposed to help locals confront this – the actual disaster that, in their eyes, threatens them – is almost entirely lacking. This is ironic since, in the past, this village has been a beneficiary of dedicated programmes to adapt to natural disasters and foster resilience in

2 Name anonymised.



Coastal erosion is rampant in the Bengal Delta, which spans much of the Indian state of West Bengal and neighbouring Bangladesh



vulnerable rural areas.³ Such programmes target what customarily count as natural disasters – enormous events that interrupt normalcy and involve the sudden destruction of lives and assets. When surges have struck, official advice has been broadcast reminding people to take precautions in the stormy season – to stock potable water, canned food and firewood to ensure their survival. Individual organisations have arranged for the construction of cyclone shelters in robust, multi-storied buildings. Villagers such as Maiti appreciate these efforts. Yet, they regard them as being off the mark. The real disaster, they argue, rests in the repeated collapse of embankments, the annual floodings occurring between the ruined outer embankment and the minor one in the interior, and in the slow disappearance of their land.

Staffers and officials offering assistance in the past knew very well what worried villagers the most. But the problem was at once too big and too unmanageable, it appears, for it to be actionable. The chronic onslaught of waves and currents in a shifting waterscape – taking their toll day after day all along hundreds of kilometres of banked shores in the Indian part of the delta alone – made it too big.⁴ It very rarely involved death or the sudden loss of substantial assets, all the while advancing in ways that were hardly visible, affecting substantial populations only over the course of years and decades.

Maiti knows what the future holds in store for him. Together with his wife, he has seen two villages that once stood between his own and the sea peeled away by waves. They have seen how other villages retreated with the shoreline once homes were washed away or buried under a new embankment. And they have witnessed roads that once crisscrossed their village being lined by makeshift huts, occupied by people seeking refuge after their houses were submerged.

A familiar pattern emerges from the experiences of these unfortunate people. Many of those who now live in huts were displaced by the waters several times. After losing their original homes and lands, they sought refuge nearby. But the waters drew near again, forcing them to move once more. Many I spoke to during my research went through displacement five times or more, living miserably with worsening choices and being at the whims of an encroaching sea.⁵

Now Maiti finds himself at the fringe, where most other huts have long been dismantled, their inhabitants having moved on. The road that connected them has been washed away. It is hard to keep track of where people move to. Maiti himself is unsure. Few leave the delta for good, betting on cities to make a fresh start

3 Harms, A. (2019), «Adapting to Sea Level Rise in the Indian Ocean: The Cases of India and Bangladesh», in Harris, P. (ed.), *Climate Change and Ocean Governance: Politics and Policy for Threatened Seas* (Cambridge: Cambridge University Press).

4 Mukhopadhyay, A. (2016), *Living with Disasters: Communities and Development in the Indian Sundarbans* (Delhi: Cambridge University Press).

5 Harms, A. (2017), «Citizenship at Sea: Environmental Displacement and State Relations in the Indian Sundarbans», *Economic & Political Weekly* 52(33), 69–76.

in urban slums.⁶ More stay within the delta in volatile conditions. This is home, they say. Familiar with the terrain, they bet on shared histories and networks. Some manage to buy tiny plots somewhere else with cash pooled from savings and remittances sent by family members labouring on construction sites across India or in middle-class households in nearby towns. I hear one such individual – Jana, a middle-aged former farmer and father of four – complain about the difficulties of making do on these often meagre sums while living among unfamiliar neighbours. Others, such as Sheikh, a painter and fisherman, managed to secure tiny plots of public land on which to build permanent homes. (As one of the lucky few, he benefited from the patronage of an influential politician and was not formally resettled by the state.)

All around Maiti, the land and the village is disappearing. The slow and gradual changes that swallowed plots and homesteads – turning farmers into paupers – has continue unabated. In drawing special attention to Maiti, I am not suggesting that humanitarian or state interventions to prevent or respond to calamities make no sense. They do. But in being underpinned by a conceptualisation of disaster that favours eventful disruption as well as the sudden and massive destruction of assets, such programmes fail to engage in meaningful ways with the slow and wide-scale anthropogenic degradations already unfolding in various parts of this planet, not least the Global South, where the toll is the greatest. Shifting shorelines and submerged homes require a re-orientation of disaster policies and institutions. The latter must continue to address the many dramatic manifestations of climate-related disaster that we are certain to continue seeing across densely populated regions of Asia. Equally, however, they must attend to disastrous processes that involve gradual changes, such as those experienced by Maiti and others like him: slower transformations that bruise land and people continually over the course of years, resulting in the disappearance of homes and plots, livelihoods and attachments to place. Such processes, which often lead to more permanent forms of loss for those affected than extreme climate-related weather events, are barely less cruel in their consequences.

6 Ghosh, A. (2017), *Sustainability Conflicts in Coastal India: Hazards, Changing Climate and Development Discourses in the Sundarbans* (Springer).

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ABBREVIATIONS

BTI	Indonesian Peasants' Front / Barisan Tani Indonesia
CARICOM	Caribbean Community Secretariat
CFS	Committee on World Food Security
COP	Conference of the Parties
CRIDEAU	Centre de Recherches Interdisciplinaires en Droit de l'Environnement, de l'Aménagement et de l'Urbanisme
DFDR	development-forced displacement and resettlement
EU	European Union
EUTF	Emergency Trust Fund for Africa
FAO	Food and Agricultural Organization
FSPI	Federation of Indonesian Peasant Unions / Federasi Serikat Petani Indonesia
GCF	Green Climate Fund
GEF	Global Environment Facility
ICCPR	International Covenant on Civil and Political Rights
IDP	internally displaced person
IFRC	International Federation of Red Cross and Red Crescent Societies
iNGO	international non-governmental organisation
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
LPM	Landless People's Movement (South Africa)
LVC	La Via Campesina
MST	Landless Workers' Movement / Movimento dos Trabalhadores Sem Terra (Brazil)
OECD	Organisation for Economic Co-operation and Development
OHCHR	United Nations High Commissioner for Human Rights
SDG	Sustainable Development Goal
SPI	Indonesian Peasant Union / Serikat Petani Indonesia
UNDROP	UN Declaration on the Rights of Peasants and Other People Working in Rural Areas
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNGP	Guiding Principles on Internal Displacement
UNHCR	United Nations High Commissioner for Refugees
UNWRA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
WHO	World Health Organization
WTO	World Trade Organization

Climate Justice and Migration

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