Land to the River: Planned Relocation in the Netherlands

Article by Chloé ten Brink June 12, 2024

Built on land that was reclaimed from wetlands and the sea, the Netherlands has a long history with landscape engineering and flood protection. But in some areas of the country, growing climate risk is prompting the return of land to water, raising social and ethical dilemmas around equity and sustainability.

Between the early 2000s and 2015, an area known as the Noordwaard – located between the Nieuwe Merwede canal and De Biesbosch National Park in the south-west Netherlands – was transformed from an agricultural polder 1 into an active floodplain. The project was part of a nationwide policy programme entitled "Room for the River" (Ruimte voor de Rivier), the aim of which was to reduce flood risk by working with nature rather than against it – namely by expanding floodplains. According to official figures, more than 60,000 people are now at a significantly lower risk of flooding as a result of the Noordwaard project. In order to achieve this, however, the households that inhabited the polder were either obliged to move away from the area entirely or onto newly constructed artificial mounds known as "terps".

Prior to Room for the River (RftR), the Noordwaard was home to a small agricultural population of under 100 households. When the area was returned to the river ("depoldered"), inhabitants faced a multi-year relocation process. Those with houses either in the planned permanent flood zone or who would be at risk of seasonal flooding once the project was completed were obliged to relocate. They received compensation equal to the market value of their dwellings (calculated prior to the devaluation induced by the project), but no other financial or housing search assistance was proposed on a systematic basis. Of the area's 24 farming households, 10 stayed, and of the 48 non-farming households, 25 remained – all on top of the newly built terps.

In the face of the growing existential threats of climate change such as sea-level rise and coastal erosion, planned relocation – also known as "managed retreat" in this context – is a necessary adaptation strategy. The organised displacement of a community is based on the notion that the most effective way to reduce risk is to remove oneself from it. This is a policy that irrevocably changes the lives of those affected and raises a range of governance issues: it is costly, time- and capacity-intensive, and tends to be unpopular politically, not just among those directly impacted.

Whether drawn to areas with fertile land or fleeing an environment turned inhospitable because of a natural disaster, societies and local communities have always moved in response to landscape change. Relationships to land have consistently been influenced by risk and perceptions of it. Climate and more general environmental adaptation are a continuation of this. Relocations will occur whether planned or not, either after sudden-onset events such as earthquakes or hurricanes or as a pre-emptive reaction to slow-onset events or predicted risks such as sea-level rise. This constitutes a form of climate-induced displacement or migration.

In order to foster equitable and sustainable outcomes in planned relocations, it is crucial to incorporate a justice perspective. This helps shift the focus of relocation policies towards empowering the communities

concerned, hearing their voices, and recognising their needs. Going beyond immediate risk, it recognises and, where possible, rectifies historical injustices and acknowledges local culture and identity. Transparency and engagement in the decision-making process and policy design are fundamental to the justice perspective.

Handling and compensating for loss

Planned relocation induces loss. This includes financial loss – of property – but also a range of intangible losses: loss of a sense of place, of community, of "home". For many families, their home is their most valuable asset. But it also tends to be a place of emotional significance, of memories. In the Noordwaard, the only tool to address these losses was compensation of the market value of the property, destined to fund its replacement.

Certain provisions were put in place to mitigate issues such as social cohesion; those who wished to stay in the Noordwaard but relocate to a terp could choose to stay in the same neighbourhoods, for example. But other non-monetary factors were not taken into account. For instance, there was no psychological counselling or general support available to deal with the emotional distress that can result from such an upheaval. More and more research² is pointing to the need to accompany and support individuals affected by policies such as planned relocation. However, planned relocation projects are already cost intensive, even without the provision of additional support. The total cost of the <u>Noordwaard project</u> – including landscape engineering, new infrastructure, and household compensation – came to 300 million euros.

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Another concern with an over-focus on financial compensation is that it can overlook a key stakeholder group: tenants. If property owners alone qualify for government compensation or assistance, those in rental accommodation within relocation zones will be left to fend for themselves. In order to ensure just or equitable relocations, assistance must also be given to tenants to help them navigate this uncertain time. The issue of compensation is one of distributive justice, i.e. the fair allocation of resources within society. Material compensation does not impact everyone equally. Farmers were a key demographic in the Noordwaard. During the relocation process, those who chose to move away from the area received assistance with locating new farmland as sizeable tracts of land are harder to find than standard houses. Those who relocated to the terps also had access to areas of farmland, but these were typically smaller than their previous holdings due to the limited amount of space available.

Many Noordwaard farmers were unsatisfied with the outcomes of the relocation process; post-landscape engineering, the land is harder to farm given the regular flooding that now occurs, as well as the increasing importance of nature in the area. In an interview, a representative of the Dutch water authority, the Rijkswaterstaat, summarised the situation as "taking a big slice of land, which was seen as farmland, and giving it back to... Well, we say giving it back to the river, in terms of safety. But what you're really saying is we're giving it back to nature. Nature and agriculture are [...] still fighting with each other."⁴

Ecological justice

Ecological justice – centred on the notion that human beings are not the only object of ethical concern and that the needs of ecosystems, flora, and fauna must also be taken into account – is easily left out of the mainstream justice discourse. This is because our primary focus is often environmental disparities with impacts on humans. However, with policies such as managed retreat that so fundamentally reshape landscapes and communities' relationships to them, it would be remiss not to consider the wellbeing of nature.

Floodplains are particularly important ecosystems: freshwater is equal to 0.01 per cent of Earth's water and yet is home to <u>6 per cent</u> of all discovered species. The EU's network of protected areas, <u>Natura2000</u>, consists of <u>30 per cent floodplains</u>, attesting to the importance of this type of ecosystem in Europe specifically. Adjacent to De Biesbosch National Park, the Noordwaard has become a significant space for biodiversity: species such as sea eagles and blacktailed godwits (listed as "near threatened" on the IUCN Red List of Threatened Species) have returned to the area. This revival was facilitated by the use of nature-based solutions to manage flooding, from planting willow trees, which help reduce wave size, to introducing mammals such as water buffalo that graze the floodplain and keep it open, ensuring water flow.

In the Noordwaard, these management choices and the accompanying biodiversity restoration were facilitated by the designation of "spatial quality" as the second priority of the project after flood risk reduction. While this has no clear definition, it encompasses various elements that contribute to the perception and usability of a space, including aesthetic appeal, functionality, and accessibility. It is a way of ensuring that a programme benefits all stakeholders. Thanks to this objective, elements such as new cycle paths and nature-observation platforms were integrated into the Noorwaard project, turning the floodplain into a recreational space.

Planned relocation of this type can, at worst, result in both the misuse of the vacated land and the environmental destruction that accompanies the construction of new homes. At best, it can be an opportunity to produce co-benefits for biodiversity and the fluvial ecosystem. The Noordwaard project exemplified the latter. However, relocations also occur that have no relation to risk adaptation. People and communities have been and continue to be moved for reasons such as development or mining. A well-known example is the German village of Lützerath, evicted in 2023 to make way for the expansion of a lignite mine. In these cases, the costs for the environment and the communities concerned are even higher.

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Community involvement

Another crucial aspect of the execution of managed retreat is procedural justice, i.e. the fairness and legitimacy of the decision-making process. Are community members given a choice? Can they make their views heard? How is access to information facilitated? Affected individuals and households need to be able to meaningfully consent to these processes that will fundamentally alter their lives.

In the case of the Noordwaard, communitywide information sessions and kitchen table discussions were held to find a solution for the householders concerned. Many of these took place in the <u>Biesbosch MuseumEiland</u>, a local history museum but also a community hub. A Rijkswaterstaat representative was

also present in the Noordwaard for over 13 years, from the planning stages to the execution of the depoldering. These forms of community participation do not, however, amount to <u>co-production</u> or codesign, in which different knowledge sources and diverse stakeholders are actively involved in the policy design process and implementation.⁶

Beyond its facilitation role, the Biesbosch MuseumEiland is also the holder of the documentary record of the evolution of the Noordwaard as well as the history of De Biesbosch and local traditional livelihoods. It also runs interactive exhibitions for children, allowing them to understand how flooding and floodplains work through play. Handling change and loss also means remembering it.

As a general rule, recognising the historical and cultural context of the land – and using this knowledge to inform decision-making – is essential for the success of planned relocation. Land and a sense of place are often crucial to local culture, identity, and heritage. Efforts can be made to integrate local knowledge in the policy design process, honour religious or spiritual sites, and provide avenues for the continuity of local culture.

Beyond the Netherlands

The nature-sensitive approach adopted in the Noordwaard is an outcome of the Netherlands' long history with water and flooding. The country is famous for its distinctive geography, having been essentially built on land that was reclaimed from freshwater wetlands and the sea. The country's innovative landscape engineering and water management is renowned to the point that its expertise in this field is seen as a profitable export. Significant events such as the North Sea Flood of 1953, sometimes referred to as De Ramp (The Disaster), and the Meuse River floods of 1993 and 1995 pushed forward the development of flood protection measures. The latter also provoked discussions on a perceived overreliance on hard engineering approaches to flood management.

While RftR responded to the increasing risk of flooding linked to rivers, the Netherlands has another looming issue, namely sea-level rise. With <u>26 per cent</u> of the country lying below sea level, 60 per cent of the Netherlands is <u>prone to coastal flooding</u>. In 2022, the global mean sea level was the <u>highest</u> measured so far. Under a high warming scenario, a sea-level rise of up to <u>2 metres</u> compared to current levels is predicted by <u>2100</u>. Despite the Netherlands' impressive flood defence systems, the question remains whether this will lead to new planned relocation projects and how the country will evolve in its relationship to risk.

In Europe, planned relocations – whether due to sea-level rise or other environmental pressures such as drought or land degradation – are not unique to the Netherlands. For example, the English coastal village of Happisburgh is exploring relocation options in an effort to adapt to the risks posed by climate change. And following the heavy flooding of the Danube in 2013, a planned relocation plan was put in place for a range of municipalities located in the Eferding Basin region of Austria. This is just a snapshot of a growing interest in government-led planned displacements due to environmental pressures in Europe.

While this demonstrates that displacement is not simply a problem of "the other", developing countries may well have fewer means at their disposal to mitigate its impacts. In the Netherlands, for instance, the Room for the River initiative was allocated a budget of around <u>2.3 billion</u> euros.

Limited budgets pose significant challenges to planned relocations. Insufficient funds may result in inadequate infrastructure, a lack of social services, and compromised environmental assessments, all of

which are likely to exacerbate the vulnerability of displaced communities. The challenges and risks communities face will vary significantly depending on their cultural, socio-political, and geographical contexts.

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While it is important not to fearmonger or to catastrophise human displacement, the increasing impacts of climate change are disproportionately affecting vulnerable communities, especially those in the Global South, as will climate migration. Moreover, as the impacts of climate change become stronger and more frequent, climate migration is likely to increase significantly. Central to this issue is the notion of habitability, i.e. the suitability of an environment for human habitation or occupation. As climate change progressively renders land uninhabitable, for instance as a result of severe droughts, humans will be forced to move to survive.

In more extreme cases, the existential threat is posed at a national level. The low-lying islands that make up Tuvalu in the Pacific, for example, are facing rising sea levels that have pushed them to include managed retreat inland in their National Adaptation Strategy and to seek international options. The recently established "climate migration visa" incorporated into the Falepili Union Treaty signed with Australia in 2023 enables 280 Tuvaluans annually to migrate to Australia in direct response to climate change, marking a significant step towards realising these efforts. Should sea-level rise become even more critical, total migration may need to be envisaged, although this is not a locally popular option. Overall, projections for climate migration vary widely and should be taken with a pinch of salt, but the bottom line is that it is time for proactive measures to address these rising challenges.

Though planned relocations are just a small example of how climate change and increasing environmental risks will likely transform our communities, they raise questions of justice that will be broadly relevant for climate adaptation. Vulnerability to environmental risks is often unequally distributed and raises a range of issues and inequalities that cannot be ignored. True resilience requires not only building physical infrastructure but also addressing underlying social, economic, and political inequalities and creating mechanisms of support and opportunity where possible.



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