Adaptation Without Borders

Responding to a global challenge

Transboundary climate risks

An overview

Transboundary climate risks: an overview

The impacts of climate change are not confined or experienced only nationally: they impact international trade and supply chains, capital flows, human mobility and natural resources shared between countries, regionally and globally. Likewise, actions to adapt to the impacts of climate change can have effects far beyond the jurisdiction of the government implementing them. The consequences of climate change, and the measures governments take to respond to them, are sub-national and national policy problems – but they also transcend national boundaries, and call for a multilateral response that current approaches to climate change adaptation cannot provide.

What are transboundary climate risks?

Climate risks are the possible outcomes or consequences of climate-related hazards and change and/or adaptation responses. Transboundary climate risks are climate risks that cross national borders (see Figure 1). They comprise two sets of risk associated with:

- The transboundary impacts of climate change.
- The transboundary effects of adaptation – positive or negative – made by one or more countries that have repercussions for others.

Transboundary climate risks can flow through biophysical connections (shared ecosystems and resources: rivers like the Nile or the Colorado, basins like Lake Chad, or ecosystems like the Himalayas and the Amazon); trade links (the flow of goods and services, for instance in auto manufacturing or commodities like wheat, rice or coffee); financial inter-dependencies (the flow of capital and other assets, including foreign investment); and people (through migration, forced displacement or tourism). They can be triggered by a range of climate-related hazards, such as storms, droughts and floods, and long-term trends, like sea level rise and desertification, as well as by the adaptation actions of individual governments.

Risks can be transmitted directly, between the source and the point of impact; they can cascade, where a direct impact has knock-on effects elsewhere; or the burden of risk can spread rapidly, even uncontrollably, across sectors or regions. Their effects can be felt across neighbouring countries, regionally or in economies and societies hundreds or even thousands of miles apart. As these risks flow across borders, they need to be managed collectively, either at source or the point of impact, or through interventions along what's known as the risk pathway, for example by managing transboundary climate risks along supply and value chains to prevent price shocks and disruptions.

Who is exposed to transboundary climate risks?

Transboundary climate risks are by their nature indiscriminate: they will affect all countries, irrespective of their level of development, location, affluence or power. The most exposed countries, however, are not necessarily those that we traditionally think of as facing the greatest risks from climate change. Small trade-dependent countries such as low-income states dependent on imports for their food security are likely to be disproportionately impacted. But this group also includes wealthy emirates in the Gulf, South-East Asian manufacturing powerhouses, members of the European Union, large ocean states and landlocked countries in Central Asia. Emerging economic powers in Africa and Asia are likely to face adaptation challenges because of the climate vulnerability of their neighbours.

No one government is immune to the effects of transboundary climate risk

No one government is immune to the effects of transboundary climate risk, and no one government can address those effects alone. Current approaches to climate change adaptation are based on nation-states because nation-states are the sovereign entities through which international agreements, treaties and legal instruments are negotiated, mediated and agreed. But the transboundary effects of climate change mean that the international community needs to find a response grounded in robust multilateralism that seeks to frame responses to transboundary climate risk as a global public good.

How do we manage transboundary climate risks?

In a global and interconnected world, managing these risks will require collaborative approaches that cross borders, where actors engage with one another to identify shared risks and potential opportunities. This is already happening, at least to some degree: inter-governmental cooperation is a staple of waterway management, for instance under the Mekong River Commission; a number of countries acknowledge transboundary climate risks in their national adaptation planning, and undertakings such as the Great Green Wall for the Sahara and Sahel, on completion the largest living structure on the planet, show

what can be achieved if countries are willing to work together to address shared challenges.

International conventions and treaties also address transboundary natural resources; multilateral institutions are taking an active interest in the trade and finance elements of transboundary climate risks, and there is potential to apply international law in the context of managing the transboundary effects of adaptation measures. There is also significant regulatory and institutional knowledge to build on in tackling transboundary risks – and ensuring that we're not locking ourselves into maladaptive pathways that exacerbate future risks. But the discussion on adaptation planning has not moved beyond political boundaries, and the institutional, political and financial systems necessary for national and subnational adaptation plans are not yet fully in place. For many countries, transboundary adaptation planning is at best a distant prospect.

Many transboundary climate risks – from international supply chains to global investments – are managed on a daily basis by private companies, not governments. Their adaptation decisions, for example to abandon or divest from risky supply chains or vulnerable markets, may seem effective when viewed from the boardroom, but may undermine livelihoods and worsen climate vulnerability for many communities unless companies and governments better align their adaptation strategies. Managing transboundary climate risk therefore also requires new collaborative approaches between state and non-state actors.

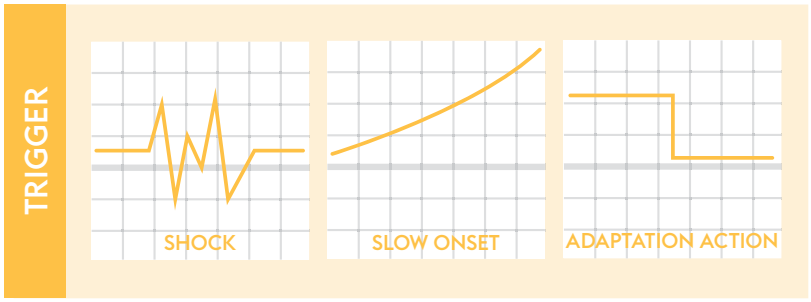
Where next?

As an emerging field of research and practice, there is a clear need to develop a robust evidence base on the complexity of transboundary climate risks: at a very basic level, we don't know how exposed countries are to transboundary climate risks; the magnitude of those risks, in particular as compared to more direct risks;

Figure 1– Transboundary climate risks

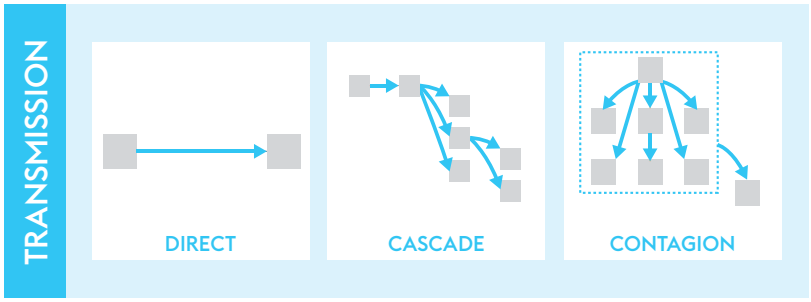
What can trigger them?

Different types of events can create transboundary climate risks



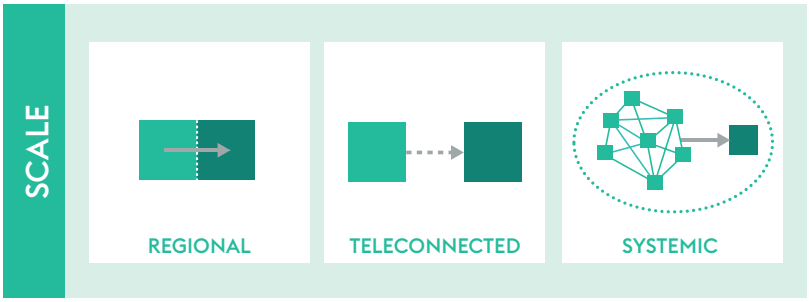
How can they spread?

Transboundary climate risks can be transmitted in different ways



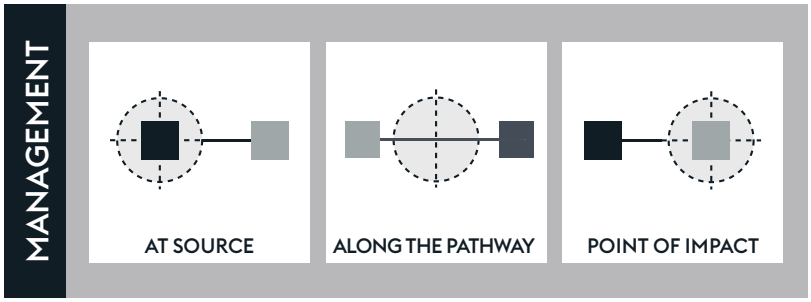
Where can they spread?

Transboundary climate risks can be spread between and across countries



How can they be managed?

Responses can target different stages of a transboundary climate risk



how confounding factors, including adaptation strategies, influence the propagation of transboundary climate risks; or the options and instruments available to reduce or manage them. As a start, scoping reviews should be undertaken to take stock of the current state of knowledge, including existing methodologies and approaches for assessing transboundary climate risks. Direct support is needed to ensure that the next generation of national adaptation plans take account of these issues in order to build the resilience of people and ecosystems to transboundary climate risk.

As the central global coordinator of climate action, the UNFCCC has a clear role to play in raising awareness of and motivating action to address transboundary climate risks. But clearly there is also an important role to be played by UN conventions beyond the UNFCCC, such as the UN Convention to Combat Desertification, and existing regulatory approaches in international environmental law, such as the Convention on the Protection and Use of the Transboundary Watercourses and International Lakes. There are roles here too for sector-specific policy-making institutions in key sectors like agriculture and food security (e.g. the Food and Agriculture Organisation (FAO)), trade and supply chains (e.g. the World Trade Organisation (WTO)) and actors concerned with the functioning of the global economy writ large (e.g. the International Monetary Fund (IMF) and the World Economic Forum (WEF)), alongside international NGOs such as the International Centre for Integrated Mountain Development (ICIMOD), which can help facilitate access to data and information to support decision-making on transboundary adaptation.

This requires building bridges

Outside UN processes, regional policy-making bodies and municipal networks will also come into play, alongside the private sector, particularly in addressing climate risks to trade and finance. Businesses, investors and consumers will be powerful forces in managing and reducing transboundary climate risks. Companies already speak the language of risk but need better tools to assess climate risks along their supply chains. Managing climate risk should be a business decision, aimed at protecting the long-term viability of companies and their contribution to the economy, but in ways that do not harm the capacity of others to adapt or thrive. Financiers and customers should rise to the occasion and give companies a mandate to do more.

Fundamentally, reckoning with transboundary climate risks will mean engaging deeply with the international organisations and structures that are critical to pursuing an effective, equitable and just global economy that works for everyone, everywhere. This necessitates that climate risks are not only considered and managed, but also embedded in the practices and operations of businesses and national economies around the world. Managing climate risks, including transboundary climate risks, cannot just be the concern of environmental ministers and activists alone, but must become an essential factor for all organisations, institutions and communities as they pursue sustainable development and prosperity. This requires building bridges between the worlds of climate change, trade, finance and human security, and using climate change to drive greater international cooperation to meet one of the gravest challenges facing the world today.

A new initiative to tackle the challenges of transboundary climate risks

The Adaptation Without Borders Initiative is grounded in the belief that the global effects of climate change require solutions beyond the adaptation efforts of any single government. Adopting a transboundary perspective on climate risk fundamentally changes the scope and nature of the adaptation challenge, creates opportunities to strengthen international cooperation on adaptation and paves the way towards lasting global resilience. By raising the visibility of transboundary climate risks, gathering evidence and analysis and building connections between stakeholders, we seek to change the narrative and drive action to establish adaptation as a global public good that warrants significantly more investment and attention than it currently attracts.

Adaptation Without Borders

For more information visit adaptationwithoutborders.org

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