

**Adaptation without
borders:**
Understanding indirect
climate risk

Go to www.menti.com and use the code 23 03 5

How many years have you been involved in NAP
planning and formulation?



IPCC Definition of adaptation

The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.

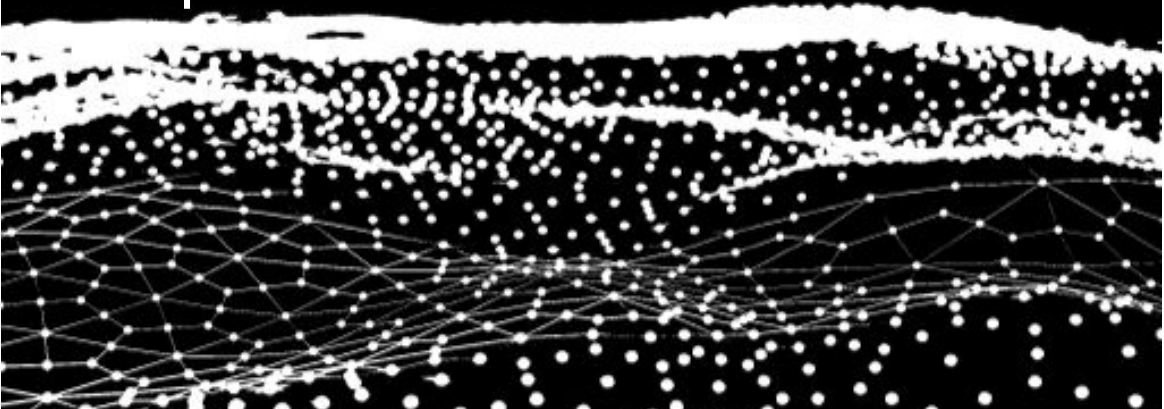


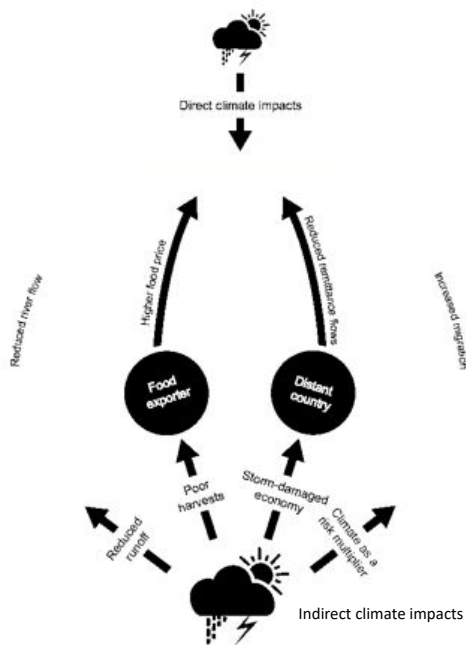


“Adaptation is not necessarily a benign process: ‘effective’ adaptation ... might increase vulnerability elsewhere or redistribute vulnerability and exposure between countries...”

Borodyna, O., Harris, K., & Adams, K. (2019). *Transboundary climate risks*. Steyning: Wilton Park.

“Climate risks cross national borders and affect all countries, irrespective of their location or level of development.”





<http://adaptationwithoutborders.org/>

National Adaptation Plans and the indirect impacts of climate change

Introduction

Climate change poses substantial challenges to development around the world, particularly for poorer countries, which means effective adaptation is essential. Many governments are currently drafting variations of National Adaptation Plans (NAP) under the United Nations Framework Convention on Climate Change (UNFCCC), which creates an opportunity to raise the ambition and coherence of adaptation planning to new levels.

Adaptation planning to date has tended to focus locally, reflecting the local jurisdiction of most decision-makers, and the direct nature of many climate impacts. Yet societies and economies do not exist in isolation; through global trade, financial ties and migration, we are highly interconnected. In the context of adaptation, this means that both the climate risks we face, and measures to address them, extend well past territorial boundaries.

This policy brief aims to help countries to take stock of what we call the "indirect impacts" of climate change – impacts that require adaptation in one place as the result of climate change somewhere else – and to address them in their NAP. This approach is in line with the UNFCCC's NAP guidance, which urges countries to "develop strong working linkages between global, regional and national levels to ensure synergy and coherence of actions".

Few countries have to date taken deliberate account of indirect climate impacts, focusing instead on direct impacts from climate change within their territories. Our focus here is on practical steps that planners can take to identify key indirect impacts and begin incorporating measures to address them in their NAPs.

Key points

- Climate change impacts can extend beyond the places where they occur, indirectly affecting other countries through shared natural resources, global supply chains and trade, and the flow of people and finance around the world.
- In crafting their countries' National Adaptation Plans (NAPs), decision-makers should thus consider not only direct impacts, but also indirect ones. A simple framework described in this policy brief can help them identify and explore key indirect impacts, which can be incorporated into NAPs using existing frameworks.
- Identifying and addressing indirect impacts will help countries to improve the effectiveness of their adaptation plans, uncover specific opportunities for synthesis with other countries, improve regional cooperation, and highlight how adaptation at the regional level can improve overall regional and global resilience.



Direct climate impacts

Pathways of transnational climate risk





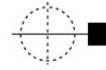
How can they be managed?

Responses can target different stages of a transboundary climate risk

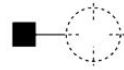
MANAGEMENT



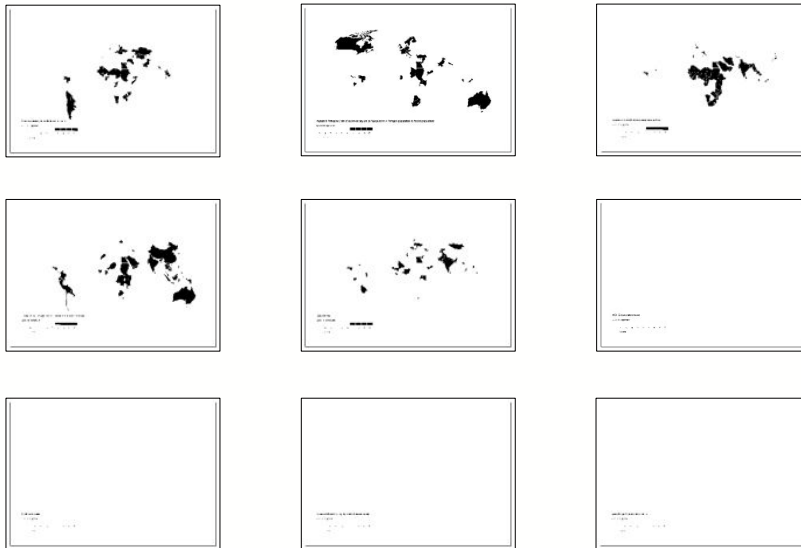
AT SOURCE



ALONG THE PATHWAY





POINT OF IMPACT



Transnational Climate Impacts Index






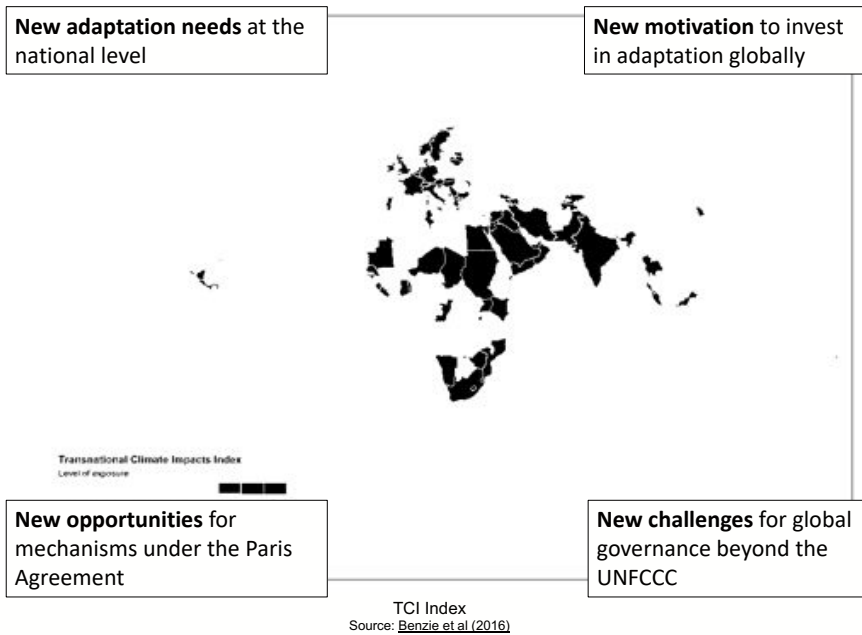
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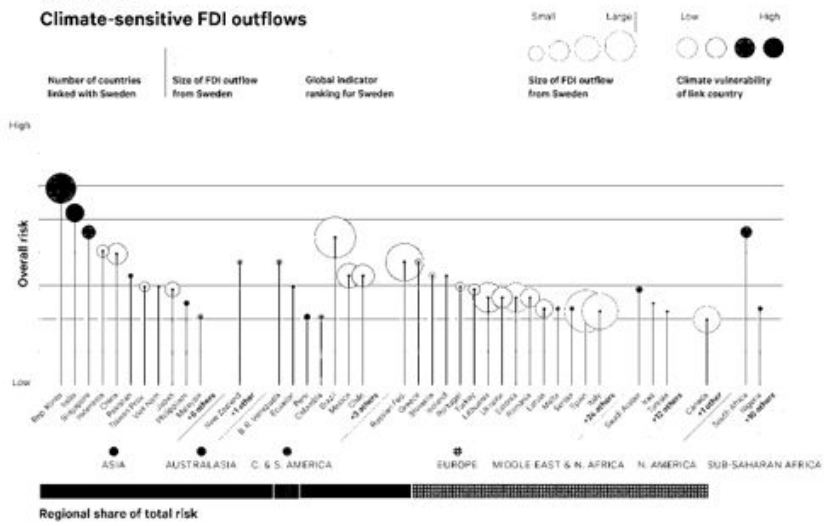
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Sweden Climate-sensitive FDI outflows



Source: MATTIOLI-FDI/TNO database (2012-2022 average). Global indicator ranking as of 2016. Note: Data are based on information reported by the companies linked above.





In a globalizing world, transboundary climate risks flow between countries, including through complex supply chains and international trade.

Managing Transboundary Climate Risks

At Origin



Along the Risk Pathway

At Impact



Managing Transboundary Climate Risks

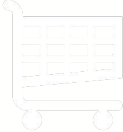


At Impact



Managing Transboundary Climate Risks

At Origin



An Assessment Approach

6 Globally Traded Commodities

2 Climate Emissions Scenarios,
3 Time Scales

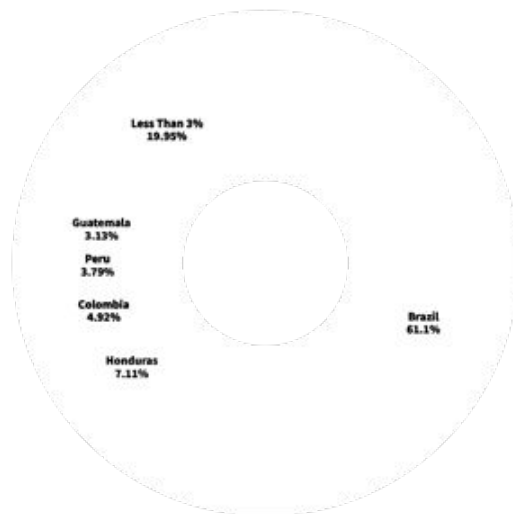
Import Flow Dependency

232 Producers, 140 Consumers



		Consuming Countries			
Producing Countries					

Share of Swedish Climate Risk Flow (Arabica, RCP8.5)



Brazil

Luxembourg ■■
Israel —
Norway ■■
Puerto Rico ■■
Saudi Arabia ■■
Uruguay ■■
Netherlands ■■
Latvia ■■
Sweden ■■
Tunisia ■■
Greece —
Poland —
Italy ■■
Morocco ■■
Switzerland ■■
Trinidad and Tobago ■■
Egypt ■■
Finland ■■
India ■■
Portugal ■■
Oman ■■
Kazakhstan —
Chile ■■

Teleconnections

2011 Thailand Flood

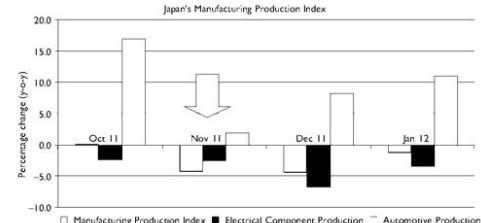
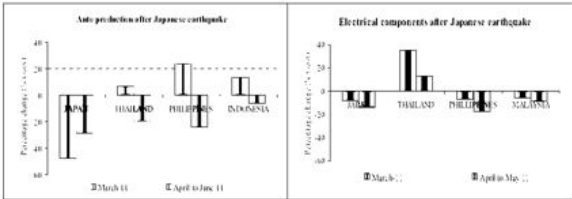


Figure 3. Disaster: Impact of the Southeast Asian Floods on Japan's Manufacturing Sector
Source: The authors' calculation based on CEIC (2012a).

Great East Japan Earthquake 2011



Source: CEIC Data Company Ltd (Accessed 30 March 2012)



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With local knowledge and global expertise, we stand ready to help you lay the foundations for a brighter future.



SMBC

By Ang Hwee Min

Singapore

Singapore's imports of Thai rice 'easily met' by alternative sources but climate change could affect food security



FOOD SECURITY VULNERABLE TO CLIMATE CHANGE

The Singapore Food Agency (SFA) noted that the country's food security is vulnerable to global driving forces and trends, such as population growth, rising urbanisation and incomes, disease outbreaks, resource scarcity and increasingly, climate change.

"Singapore imports over 90 per cent of our food. We are exposed to global price and supply fluctuations as well as threats of food supply disruption and food contamination internationally," said an SFA spokesman.

"These vulnerabilities will become more acute overtime; as global crop and fishery yields are estimated to decline with the changing climate."



Senegal Rice trade flows

Senegal's rice imports before 2008 crisis Rice price increase in Senegal 2008-2009



Senegal's rice imports from other countries was **26%** between 2008-13



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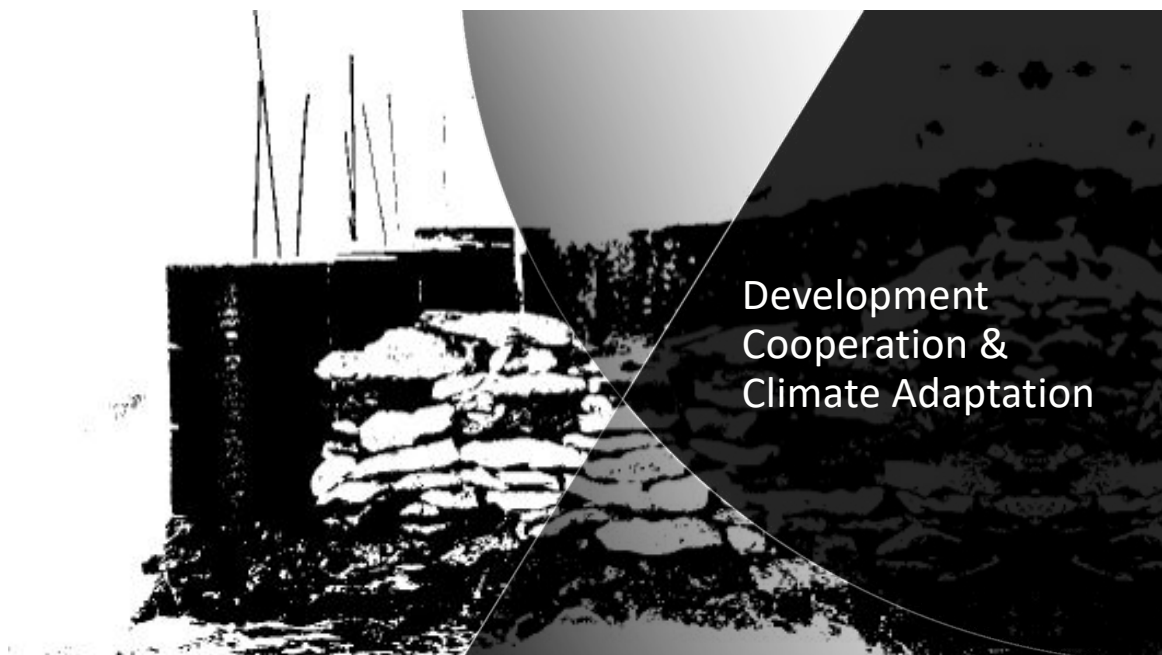




The Way Forward?

*What opportunities exist to manage
transboundary climate risks
in the trade system?*





Development
Cooperation &
Climate Adaptation



Diplomacy & Bilateral
Relationships



International
Organisations



Private Businesses &
Supply Chain Risk
Management



Investors, Insurers,
& Financiers

Increasing Complexity

*What is being done to address
this challenge?*



The Wilton Park agenda on transboundary climate risk



Wilton Park

13-15th March 2019

“Transboundary climate risks are already detectable...

...but managing transboundary climate risk is currently no one’s job.”

Wilton Park Rapporteur’s Report on Transboundary Climate Risk – to be published on Monday



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ADAPTATION

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DÉVELOPPEMENT DURABLE &
RELATIONS INTERNATIONALES



The Wilton Park agenda on transboundary climate risk



Wilton Park

13-15th March 2019

“Our vision is that countries provide support and coordinate their adaptation efforts in ways that deliver global public goods, to achieve a resilient world in which all people are secure and can prosper.”

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ADAPTATION

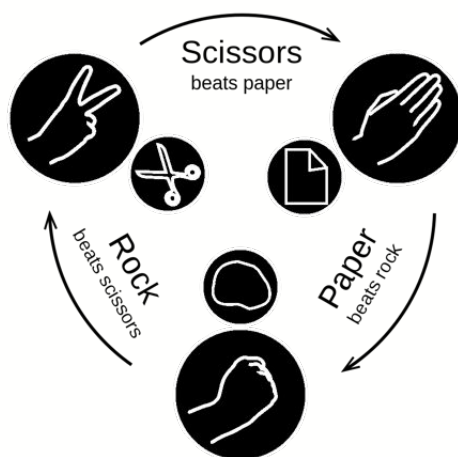
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GROUP DISCUSSION



**What is your country's
transnational climate risk
story?**







AdaptationTM Without Borders

Adaptation without Borders is a new initiative bringing together the research capacities and convening powers of a range of partners to explore the global implications of transboundary climate risks – and to enhance cooperation in meeting the global adaptation challenge.

Convening partners:





- Raising awareness
- Shifting perceptions
- Changing narratives

- Conducting research
- Pooling knowledge
- Presenting analysis

- Bridging silos
- Convening stakeholders
- Forming partnerships

- Influencing policy
- Engaging practitioners
- Harnessing opportunities

