

The Value of Investing in Resilience

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The Value of Investing in Resilience



- Recap: systemic climate and nature risks
- The role of data
- Case studies:
 - Adaptation and sovereign credit ratings
 - Climate resilient infrastructure
 - Investing in nature-based-solutions
- The role of policy

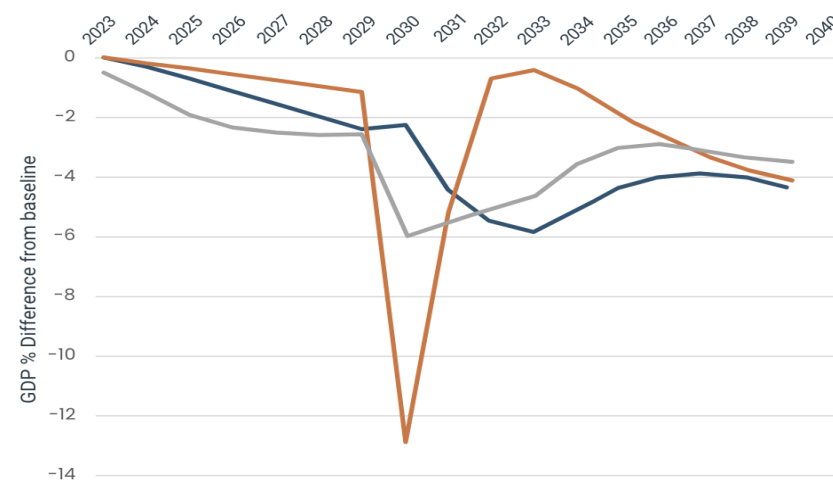
Recap: systemic climate and nature risks

- Climate change causes rising sea levels, shifting food production regions, and more frequent and intense extreme events
- Extreme events pose an ever-greater systemic risk. Estimates suggest \$60 billion worth of global trade is at risk annually from climate-related shocks
- These impacts have **long-run growth implications**

- 52% of UK bank and insurer financial assets are at least moderately dependent on ecosystem services.
- Scenario analysis show that nature degradation could lead to UK GDP impacts as large as 12%
- At least half of the UK economy's nature risk originates from overseas through supply chains
- Nature risks are **as impactful to the economy as climate risks**

The Climate and Nature Crisis

Climate and Nature

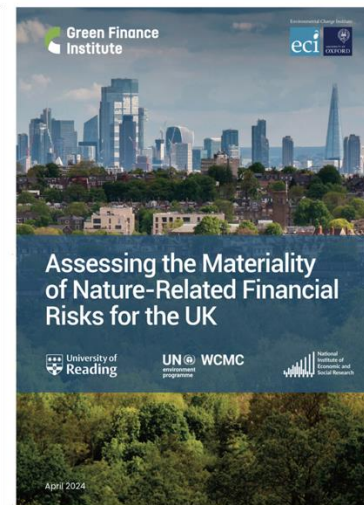
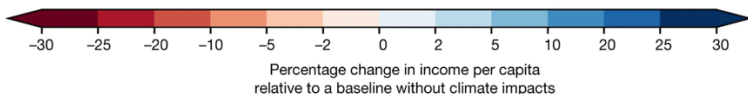
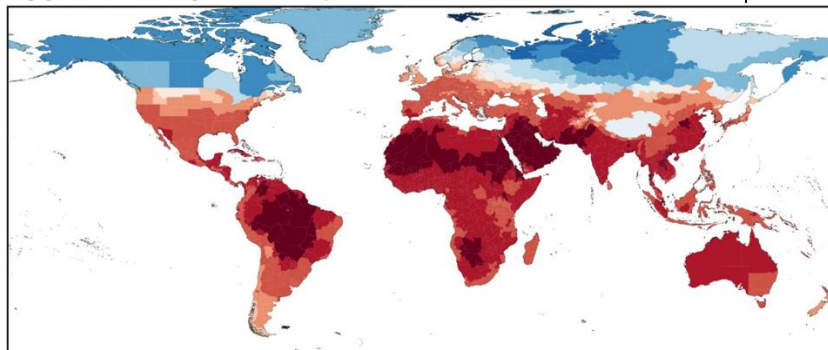


This article is more than 4 months old

Climate crisis: average world incomes to diminish by nearly a fifth by 2050

Cost of environmental damage will be six times higher than price of limiting global heating to 2C, study finds

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Providing open climate and nature data

Challenge

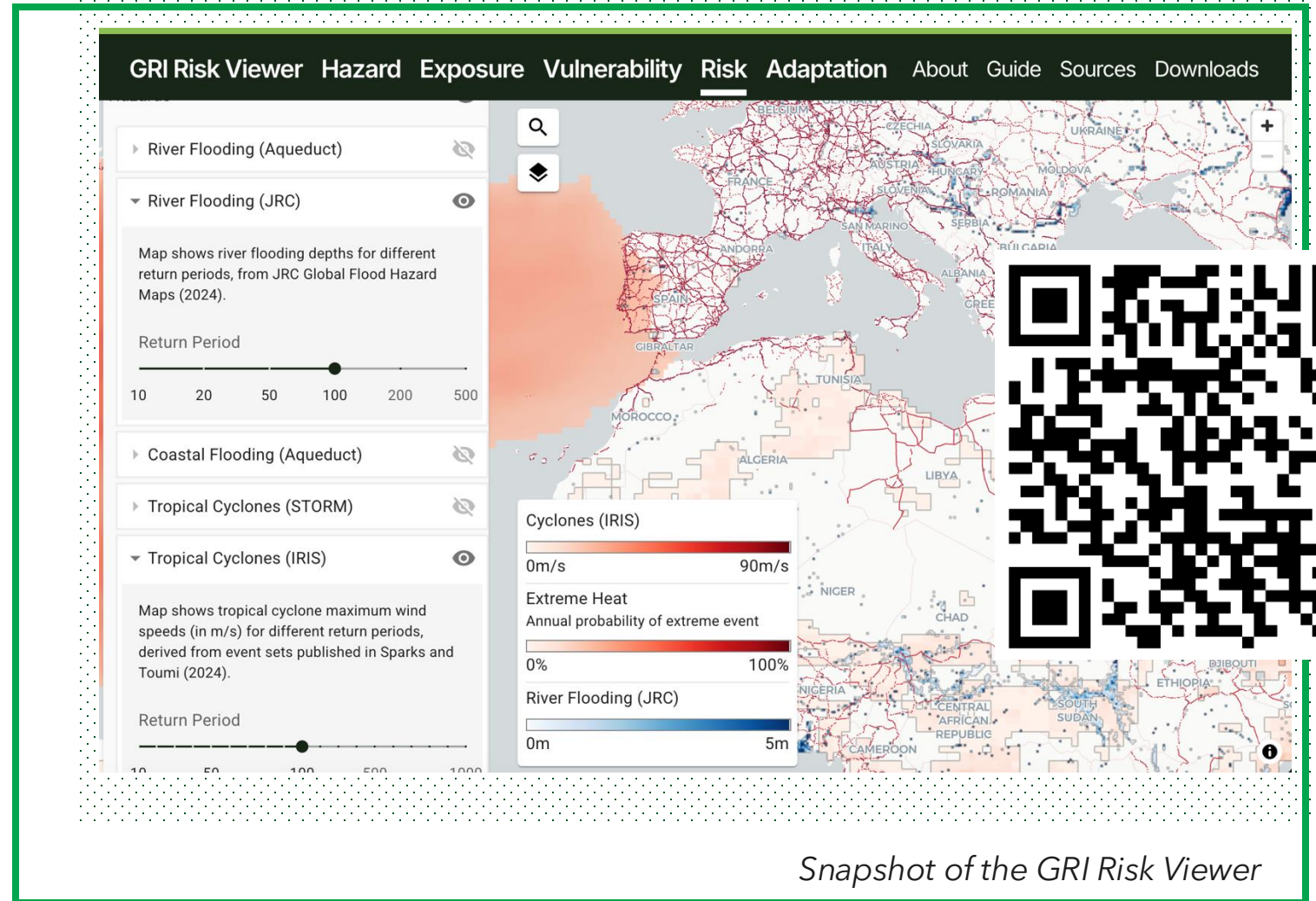


There is a lack of consistent, accessible, and decision-relevant data on climate and nature risks, which hinders effective planning and investment in resilience

Solution



The platform provides open-access, globally consistent climate and nature risk data to support decision makers and build a common language of risk and resilience



Snapshot of the GRI Risk Viewer

Guiding the use of climate and nature data

Investors need clear guides on how to use resilience data in their decision-making.

We have been working to develop use cases that demonstrate how open climate and nature data can be used by stakeholders to direct investment toward climate resilience and nature restoration.



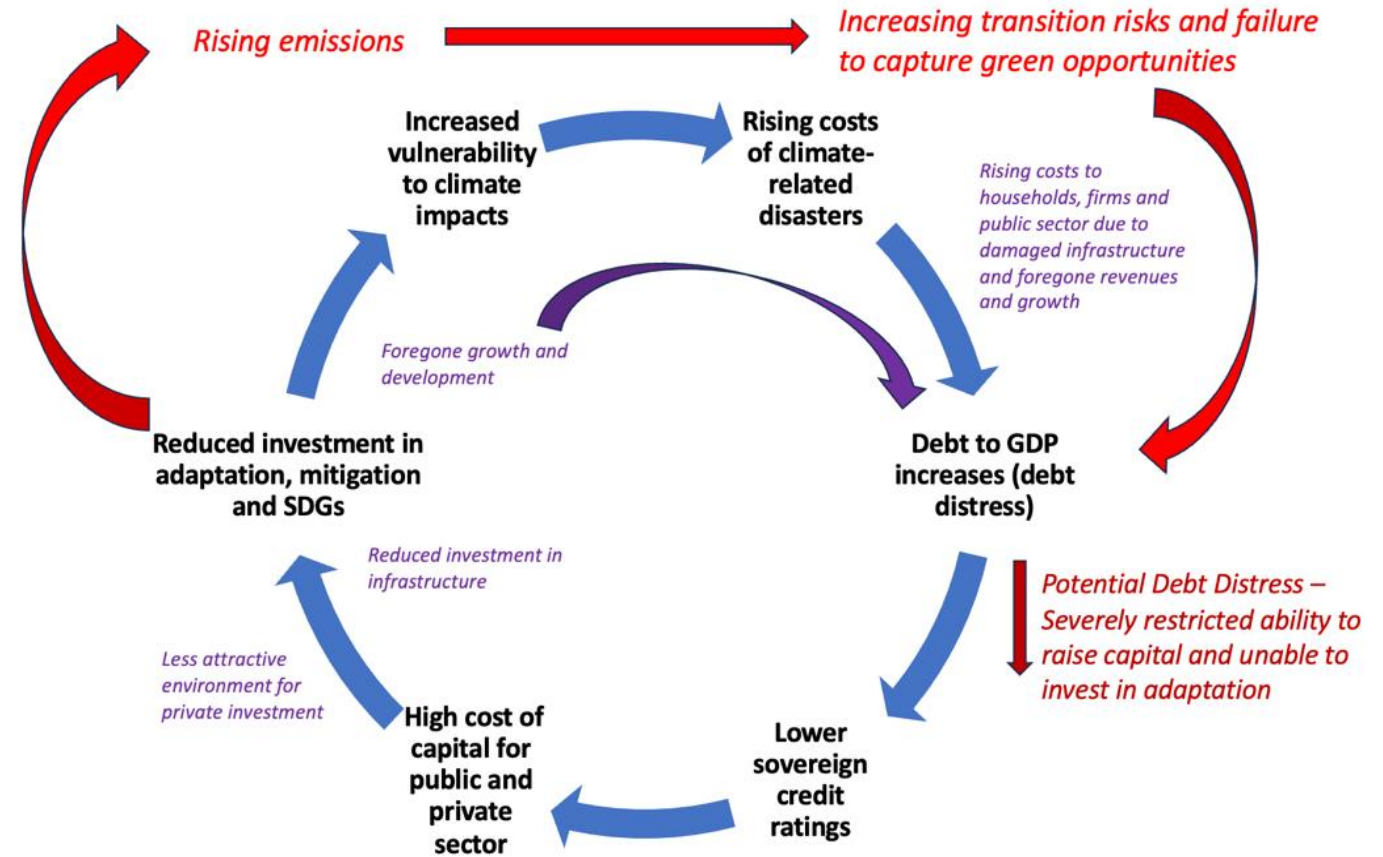
One [case study](#) looked at how combining spatial data on mangroves with quantitative analysis on the economic benefits to local communities could help investors in identifying suitable mangrove restoration projects. This was part of a wider project conducted with the Oxford Programme for Sustainable Infrastructure Systems with kind support of the Global Centre for Adaptation.



The other case studies explored how climate risk data could be used in [scenario analysis to understand sovereign climate risk and the benefits of investing in adaptation](#) and how tools could be developed for [climate resilient infrastructure adaptation option appraisal](#).

Case study: adaptation and sovereign credit ratings

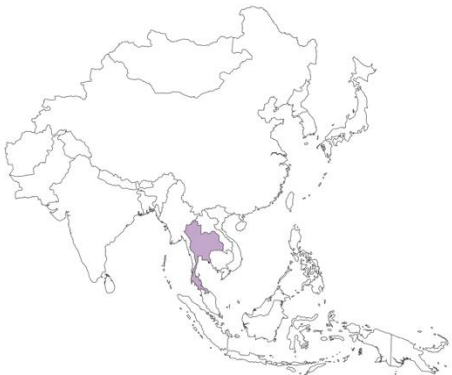
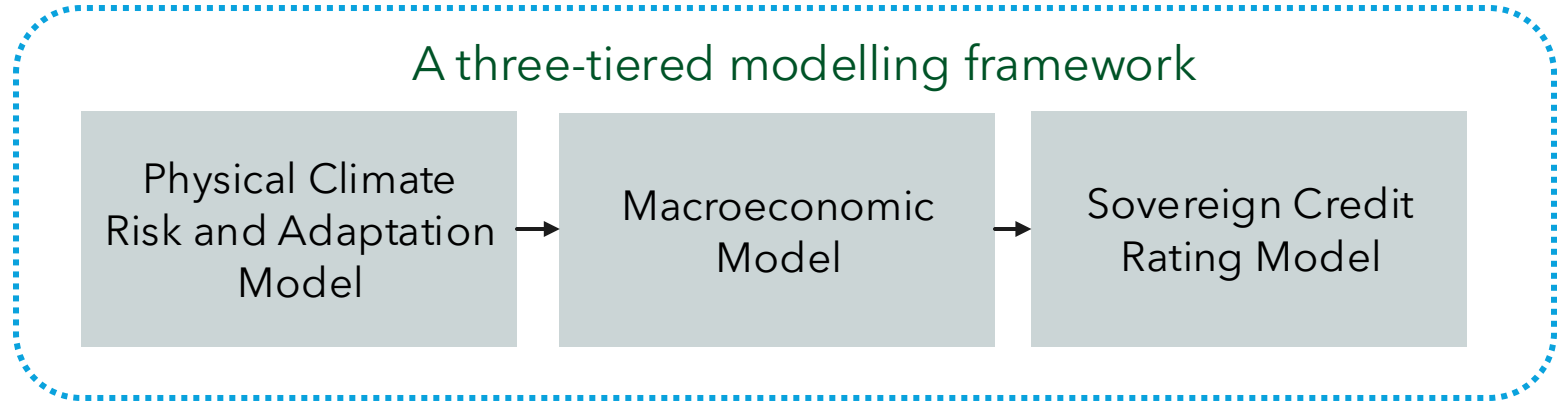
- Adaptation financing needs in EMDEs are up to \$US 387 billion, annually
- Many EMDEs lack the fiscal space to invest in adaptation, leaving them exposed to climate risks that could lead to a **climate adaptation investment trap**
- To break this trap:
 - Climate and adaptation should be incorporated into fiscal risk and debt sustainability analyses
 - Investments in **insurance** and **adaptation** can help to offset debt sustainability challenges



(authors' compilation, analogous to Ameli et al., 2021)

Case study: adaptation and sovereign credit ratings

link to paper



Floods



Tropical Cyclones

Scenarios	Downgrade (notches)	Increase in probability of default	Increased cost of debt (\$bn)
Scenario 01: Today	1.344	1.082	0.482
Scenario 02: Future	3.166	4.935	1.524
Scenario 03: Future + adaptations	1.582	1.408	0.59
Scenario 01: Today	1.085	0.781	0.373
Scenario 02: Future	1.319	1.051	0.471
Scenario 03: Future + adaptations	0.86	0.558	0.284

Case study: climate resilient critical infrastructure



Disruption to infrastructure from climate hazards costs people and firms **\$390 billion a year** in low- and middle-income countries



Over **200,000 km of roads** are exposed to climate hazards, globally

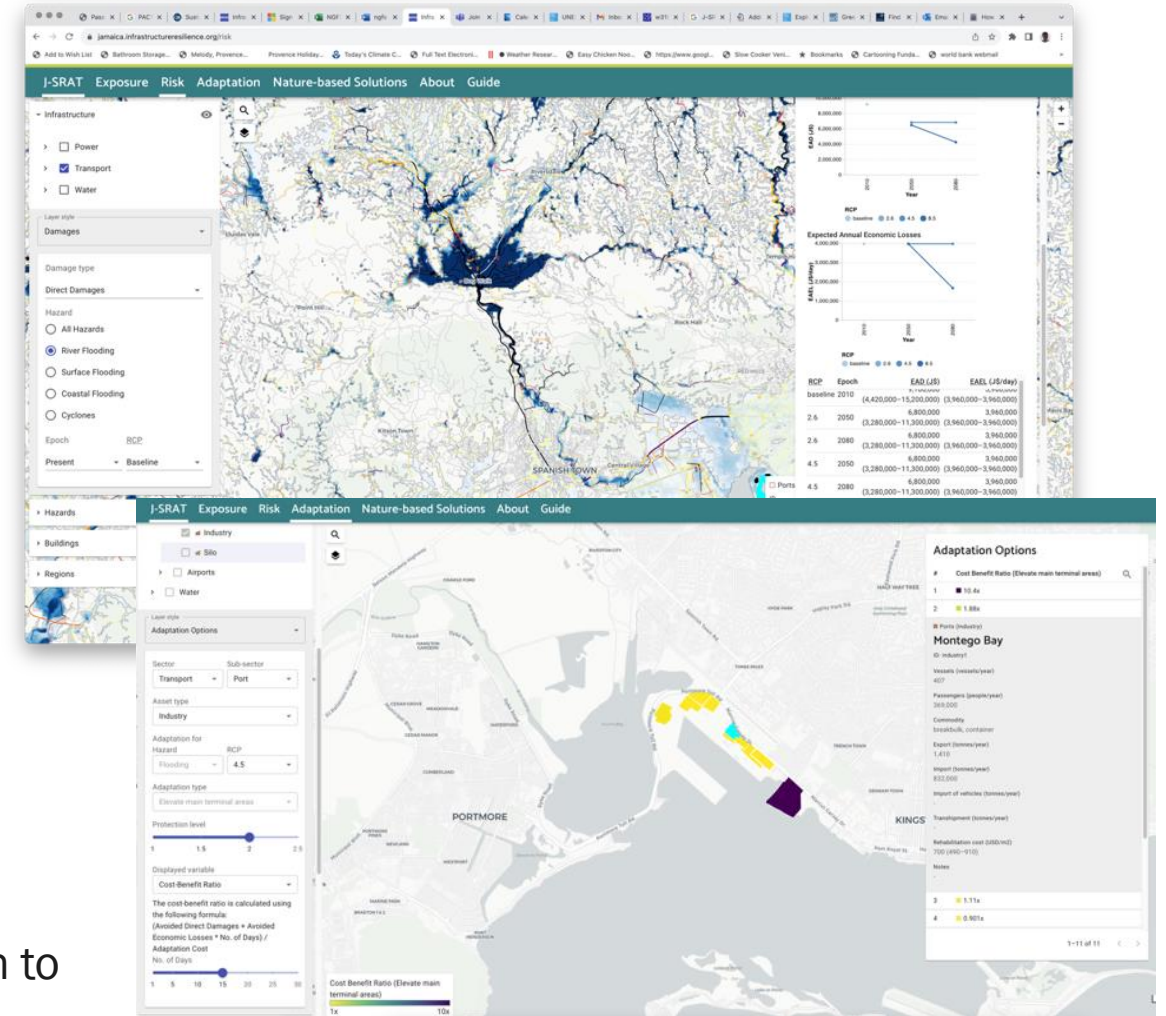


Studies show that upfront investments in resilient infrastructure yield **4-5 dollars in benefits for every 1 dollar invested**



However, of the \$2.7 trillion per year invested in infrastructure **very little goes towards resilience**

Infrastructure investors need data and tools that enable them to understand climate risks, evaluate adaptation options, and identify suitable opportunities for resilience investments



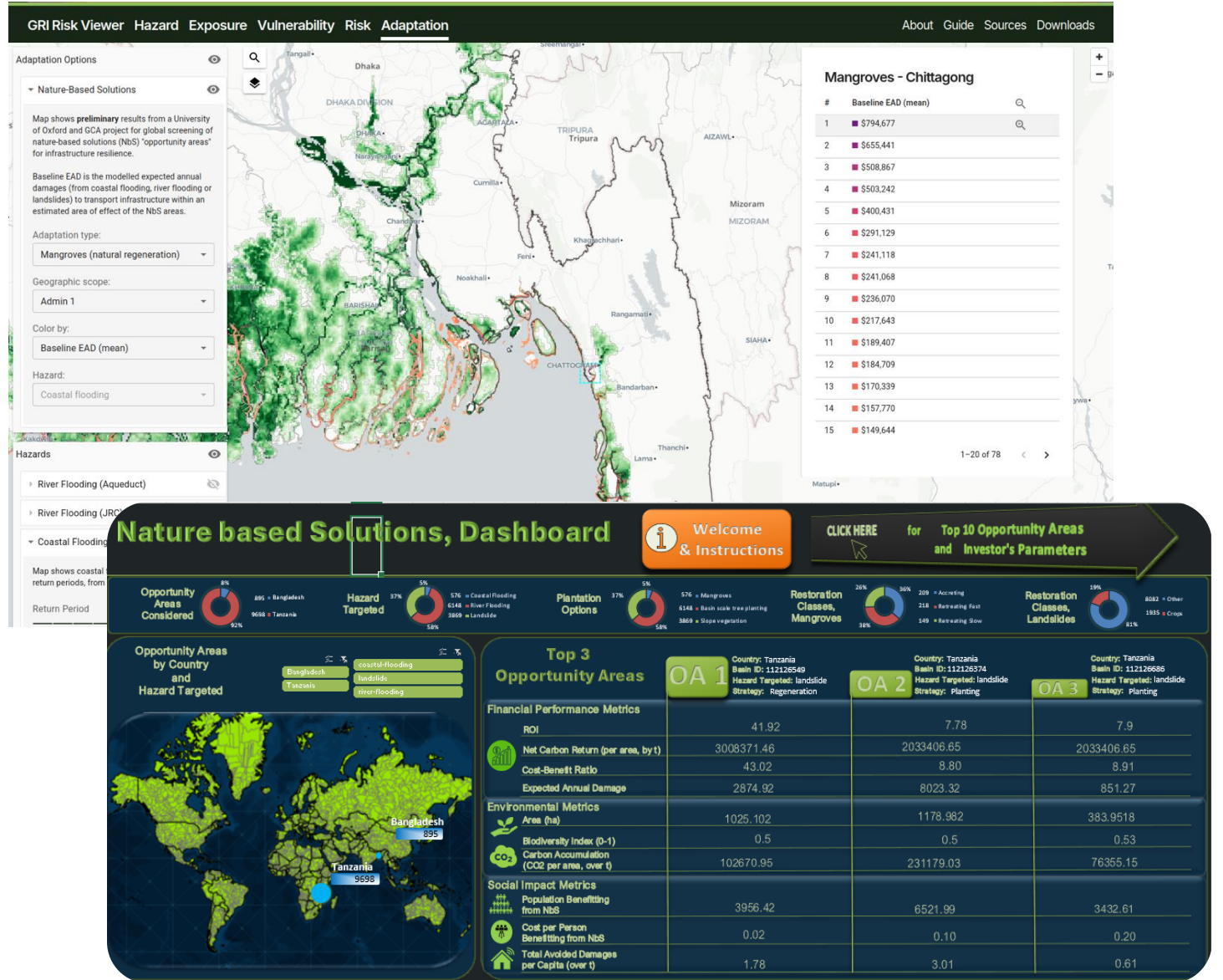
Case study: investing in nature-based solutions

Scaling funding for effective nature-based solutions (NbS) for adaptation is key to tackle climate change and support sustainable development and growth

UNEP estimates that over \$500bn of annual investment in NbS is required by 2030 (\$11tn between 2022 and 2050), from only \$200bn today.

Many of the barriers to NbS have a link to data and information: e.g. ability/high transaction costs in identifying investment opportunities, ability to measure results – financial and non-financial, local specificity of investments.

ECI project with Global Centre on Adaptation on developing investment tools for Nature Based Solutions



The role of policy



Data

Open, standardised climate and nature risk data as a public good

Mandatory corporate disclosure aligned with TCFD + TNFD



Strategy

Set clear and ambitious vision and strategy for adaptation and nature

Define sectoral adaptation and nature targets



Enabling Environment

Create an enabling environment to crowd in private finance for adaptation and nature



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Thank You

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Find out more about our work:



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