

Identifying the policy space for Loss and Damage. A role for climate risk analysis

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COP 22 Side Event

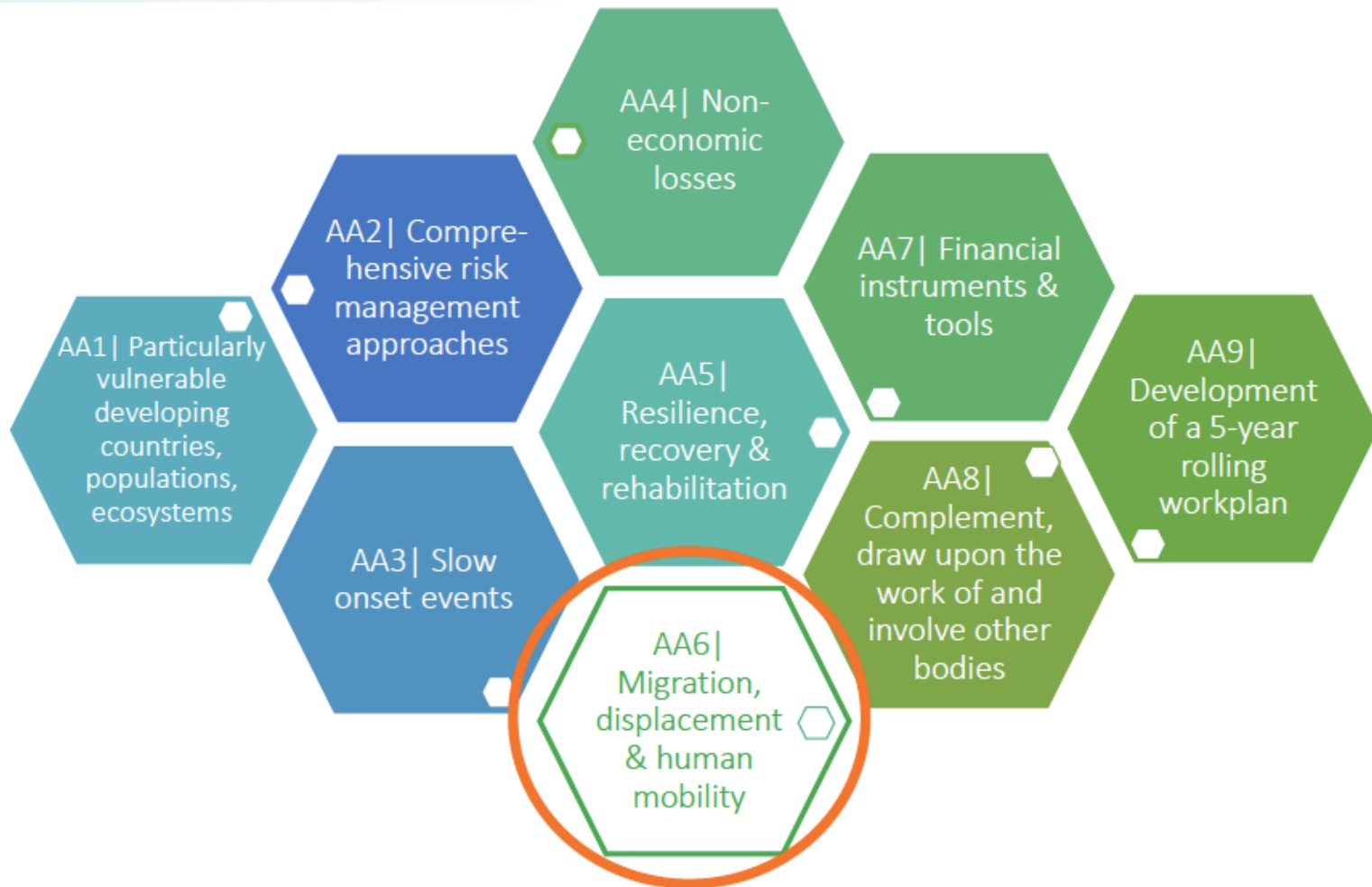
Loss and Damage: Perspectives and Options

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Aligning plural perspectives?

- **Legal:** payments for loss and damage
- **Climate science:** climate attribution of impacts and risks
- **Technical /instrumental:** minimise current and future loss and damage by protecting people, properties and ecosystems against climate-related stressors through technical and insurance solutions.
- **Humanitarian:** crisis and emergency management focus
- **Development:** longer-term building resilience in line with the SDGs
- **Human rights-based:** impairing right to life, health, food, adequate housing, education, work and self-determination.
- **Financial and economic:** cost-efficient solutions for avoiding loss and damage
- **Non-economic:** cultural heritage, ecosystems and landscapes, identity, belonging
- **Activist:** climate change impacts widespread, limiting warming to 1.5 °C

Many action areas



What are the types of risks we are talking about?



Avoided	Unavoided	Unavoidable
Avoidable damage avoided	Avoidable damage and loss not avoided	Unavoidable damage and loss
→ Damage prevented through mitigation and/or adaptation measures.	→ Where the avoidance of further damage was possible through adequate mitigation and/or adaptation, but where adaptation measures were not implemented due to financial or technical constraints.	→ Damage that could not be avoided through mitigation and/or adaptation measures; e.g., coral bleaching, sea level rise, damage due to extreme events where no adaptation efforts would have helped prevent the physical damage.

Source: Verheyen, 2008

Dealing with unavoided risks today AND avoiding future risks and preventing unavoidable risks?

How different –or the same- as adaptation and disaster risk management?

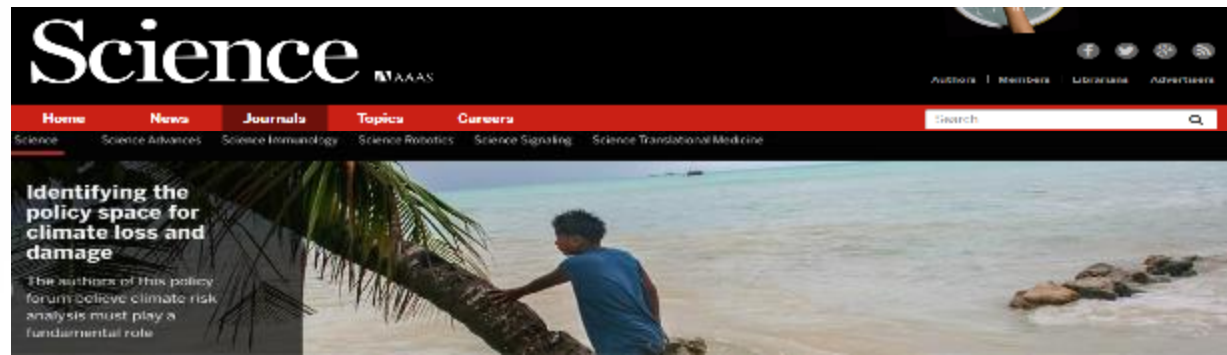
What is the risk and options space?

A broad climate risk analytical perspective

- IPCC (2014): risk as “potential for consequences where something of human value (including humans themselves) is at stake and where the outcome is uncertain.”
- Research on climate-related risks with great advances aligning instrumental, epistemological, reflexive and participatory discourses for covering risk & uncertainty issues
- Various framings (see Jones et al., 2014):
 - 1. Idealized risk:** dangerous anthropogenic interference with the climate system affecting an idealized status quo
 - 2. Calculated risk:** product of a model based on a mixture of historical (observed) and theoretical information.
 - 3. Perceived/deliberated risk:** the subjective judgment people and societies make about risk

A broad climate risk analytical perspective

- Risk science offers useful methodological entry points including a broad narrative to point out a way forward for the debate
- Building blocks for a L&D risk narrative
 - Comprehensive risk analytics
 - Risk preference and tolerance
 - Justice principles



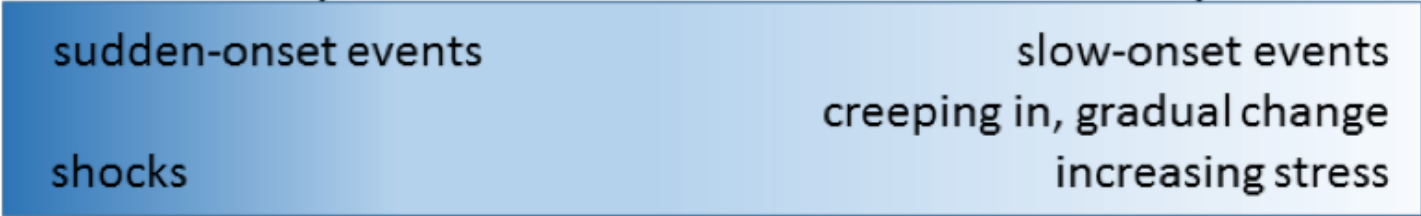
Risk perspective

Low probability of occurrence

High probability of occurrence

Risk based approach
 $R = H * E * V$

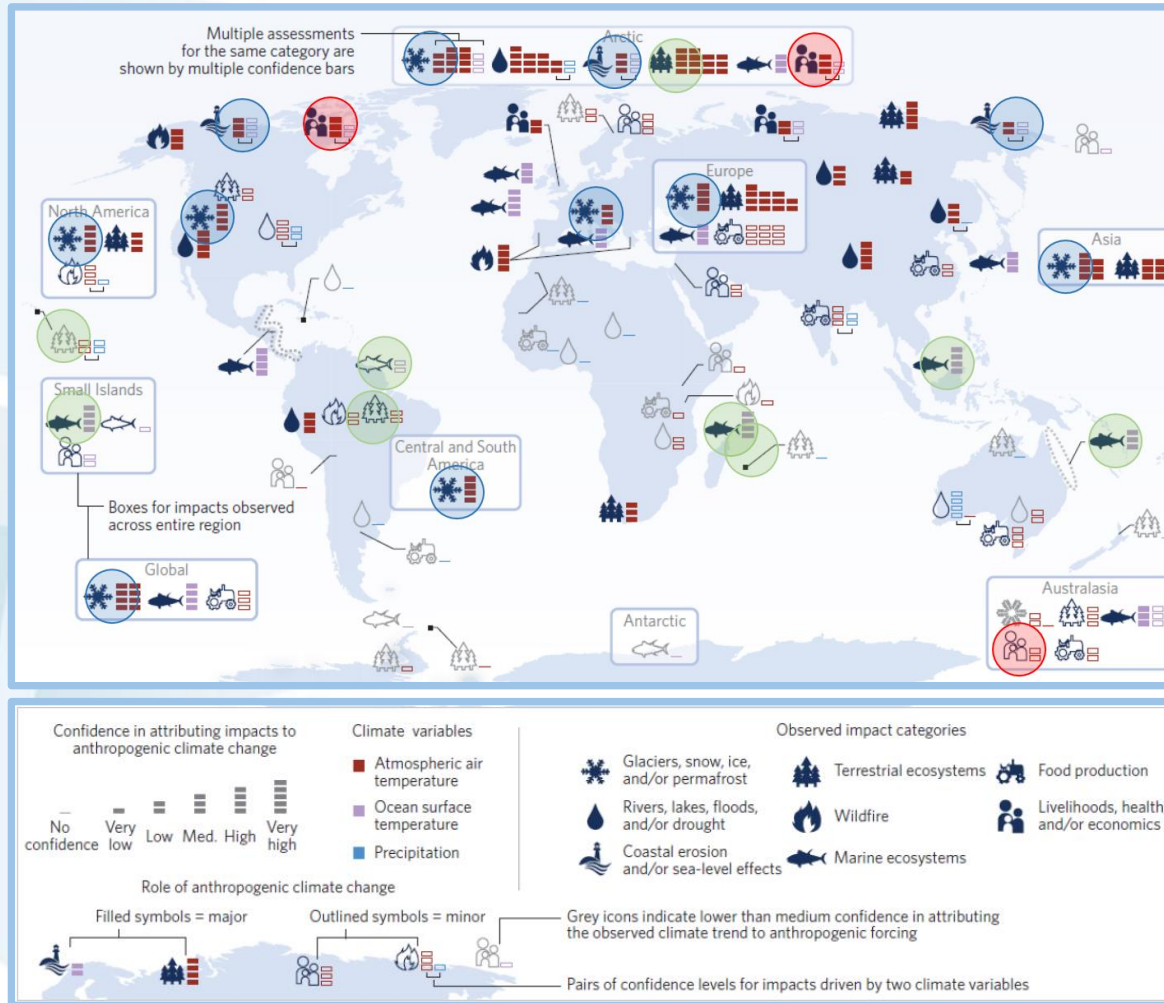
R = risk, H = hazard,
E = exposure, V = vulnerability



e.g. timescale landslides, storms, floods... droughts sea level rise, glacier shrinkage
hours days weeks months years decades

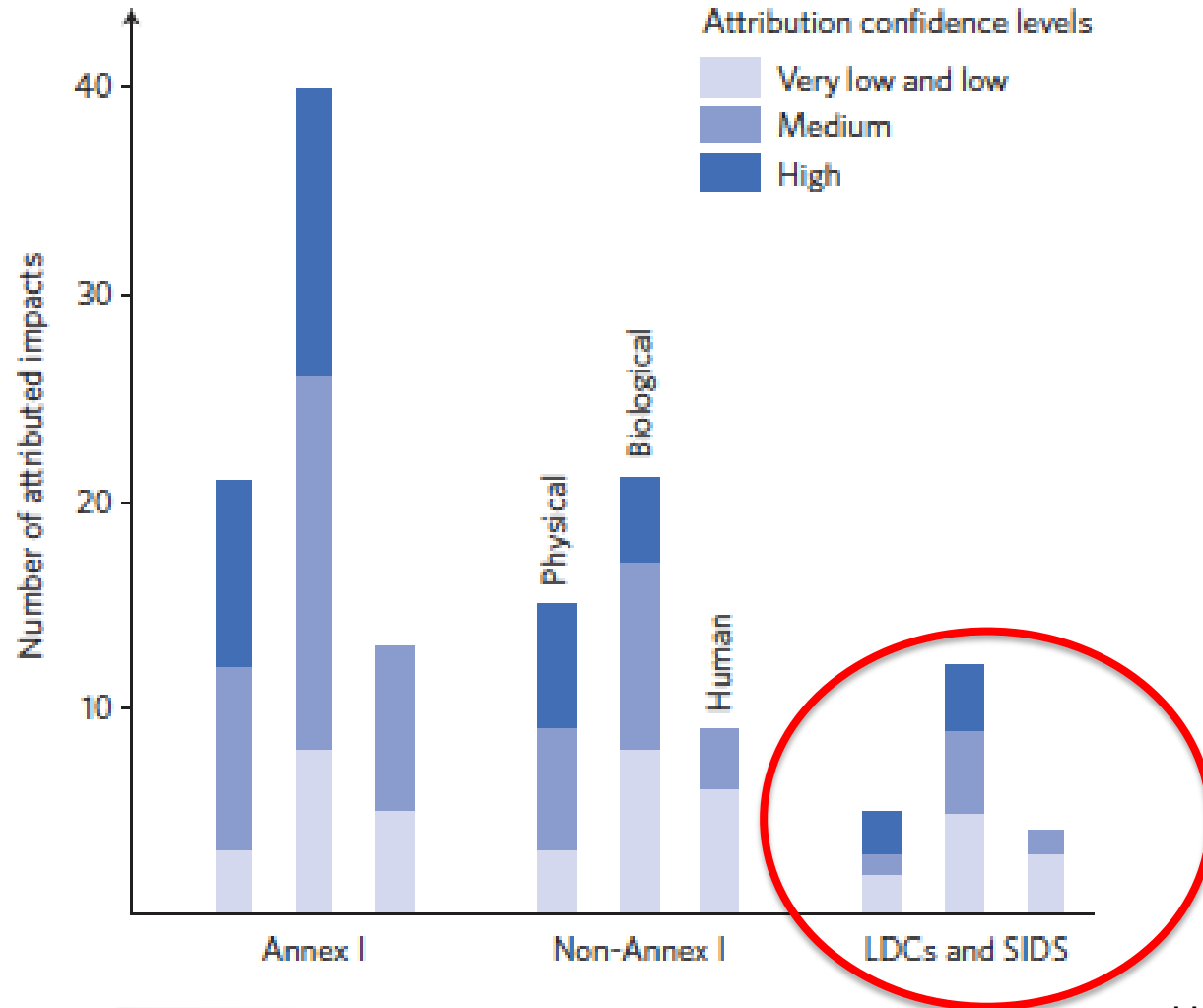
Loss and Damage Network, 2016

Observed impacts on all continents and oceans with climate attribution at different levels



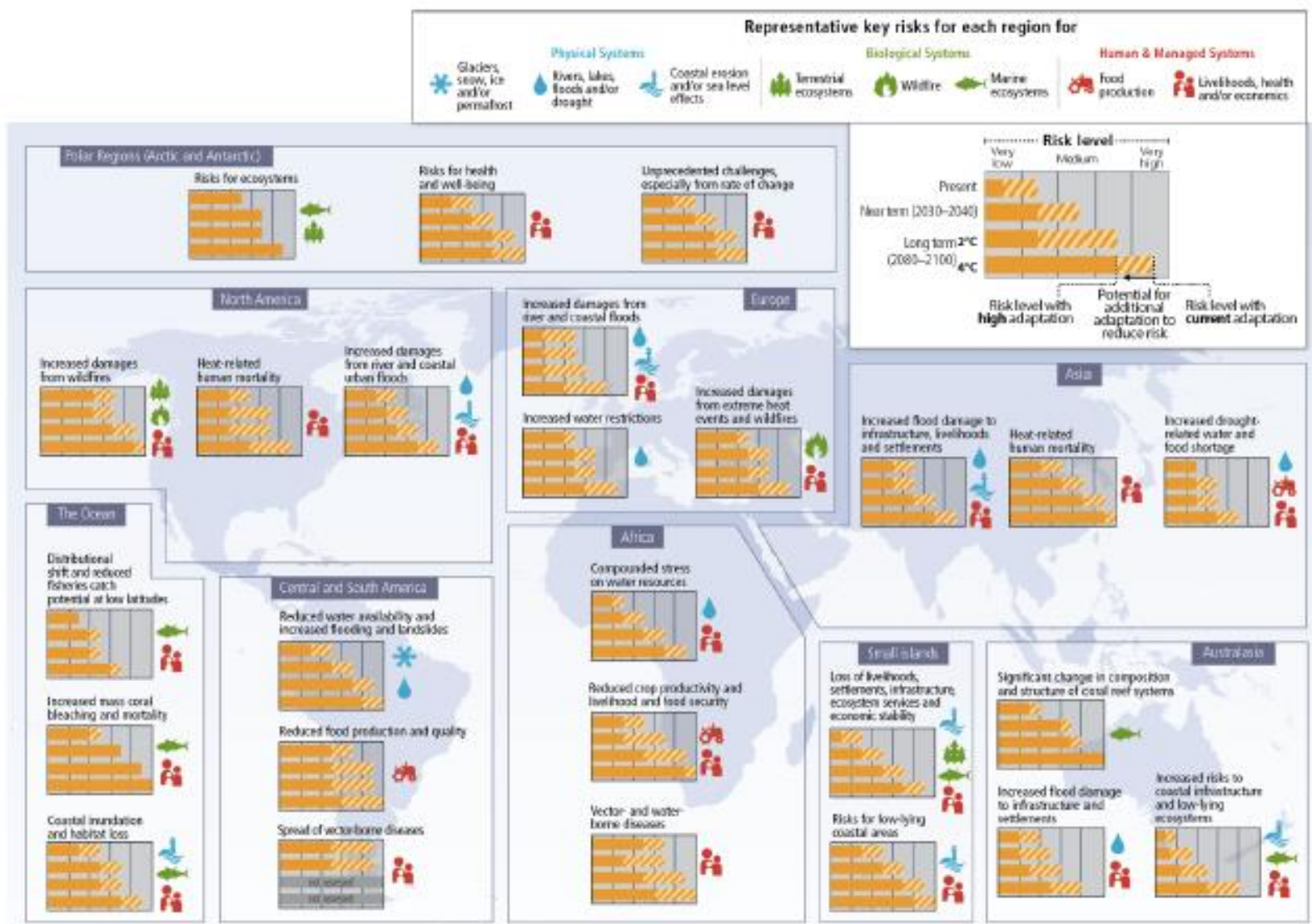
Modified from Hansen and Stone (2016).

Distribution of attributed climate change impacts in physical, biological and human systems as assessed in the IPCC AR5

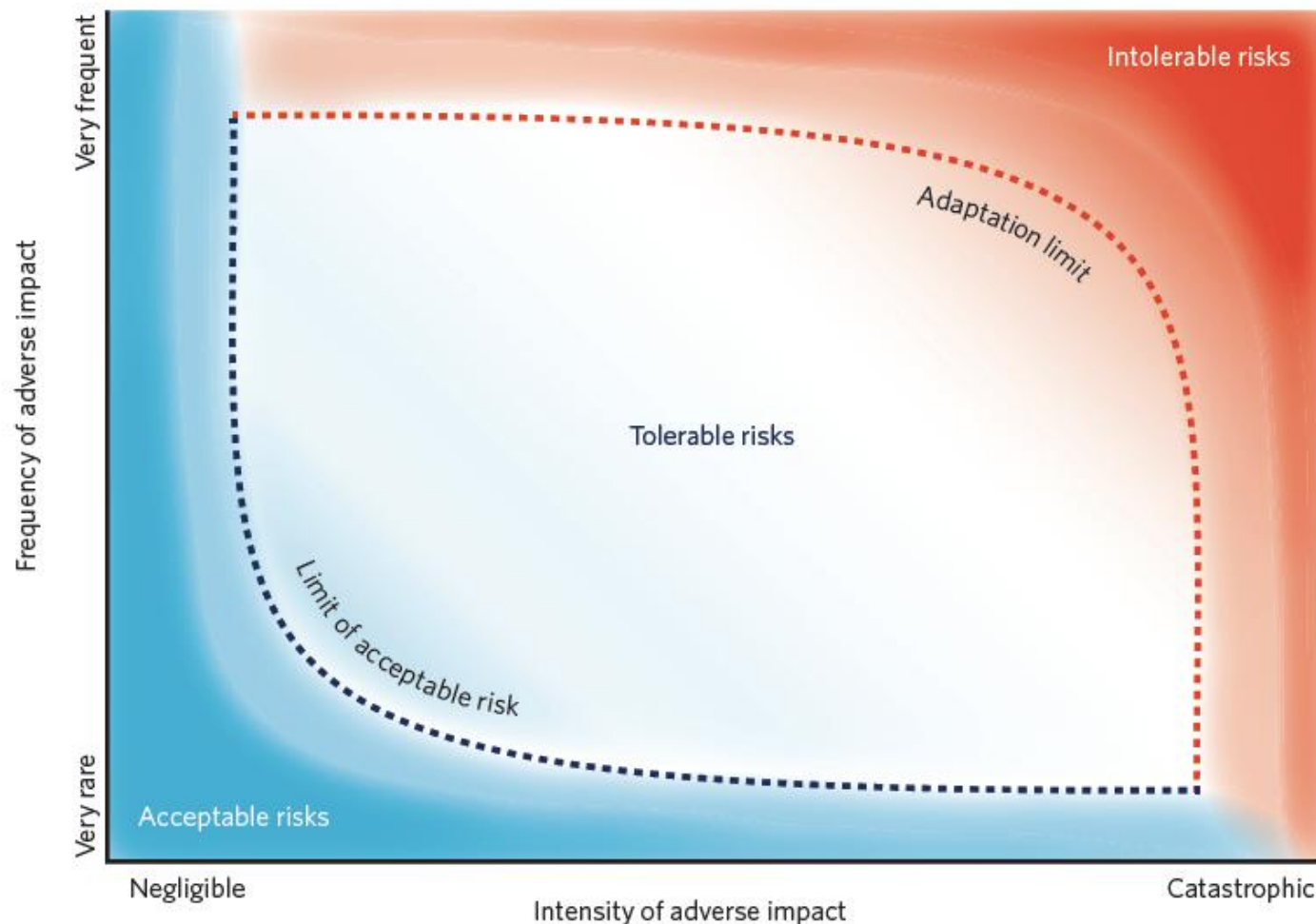


Huggel et al., 2016

Future risk: IPCC Working II regional climate risk analysis



Social sciences: Risk preference and tolerance



Acceptable, tolerable and intolerable risks

Dow et al. 2013b after Klinke and Renn 2002; Renn and Klinke 2013)

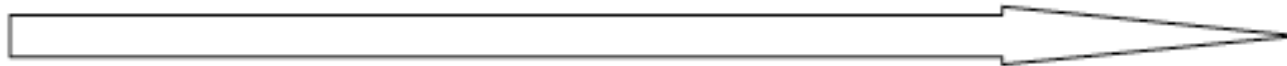
Climate Justice

- Identifying roles and responsibilities for dealing with risks involves attention to climate justice principles
- *Compensatory justice*
 - Polluter-pays principle,
 - due to the unequal distribution of historical and current emissions, as well as potential irreversible loss,
 - attributing impacts to anthropogenic climate change and identifying harm-doing.
- *Distributive justice*
 - Burden sharing necessary as many vulnerable countries in need of international support for tackling today's adaptation deficits
 - Does not require climate attribution of past, present and future risks for generating international support, such as provided via the Global Facility for Disaster Risk Reduction (GFDRR).

The space

- Employing broad risk science principles and insights a policy space for Loss & Damage can be delineated as composed of classes of
 - *curative measures* for unavoided and unavoidable impacts, and
 - *transformative measures* for avoiding and managing intolerable risks.

What are the risks we are talking about and what set of measures can be used?



Avoided	Unavoided	Unavoidable
<p>Avoidable damage avoided</p> <p>→ Damage prevented through mitigation and/or adaptation measures.</p>	<p>Avoidable damage and loss not avoided</p> <p>→ Where the avoidance of further damage was possible through adequate mitigation and/or adaptation, but where adaptation measures were not implemented due to financial or technical constraints.</p>	<p>Unavoidable damage and loss</p> <p>→ Damage that could not be avoided through mitigation and/or adaptation measures; e.g., coral bleaching, sea level rise, damage due to extreme events where no adaptation efforts would have helped prevent the physical damage.</p>

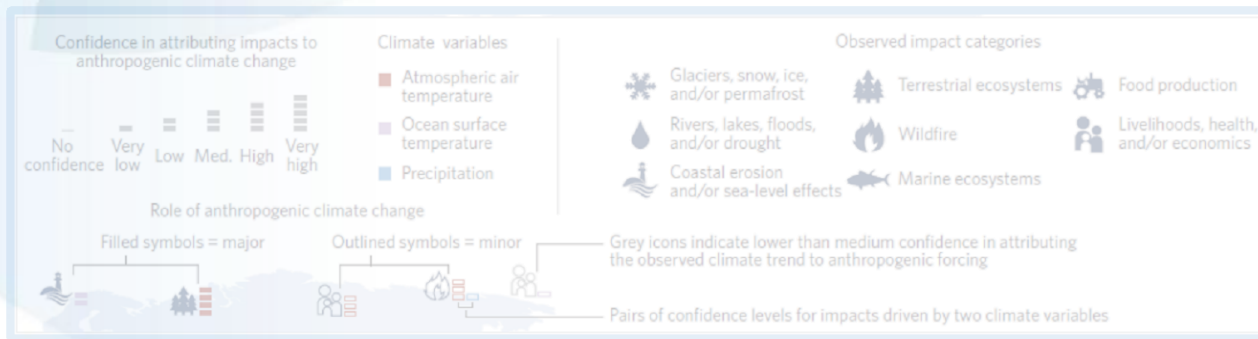
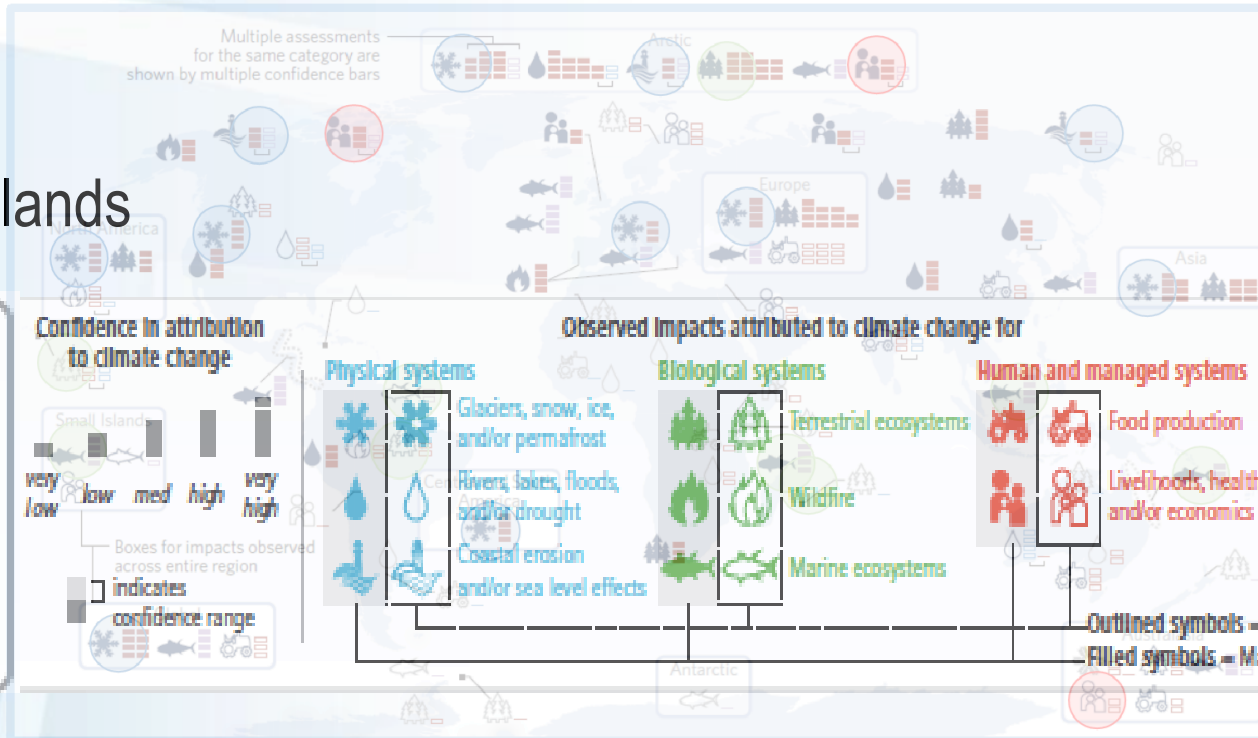
Source: Verheyen, 2008

Transformative measures
 Avoiding risks *ex-ante* through transformative risk management (building on DRR and CCCA)

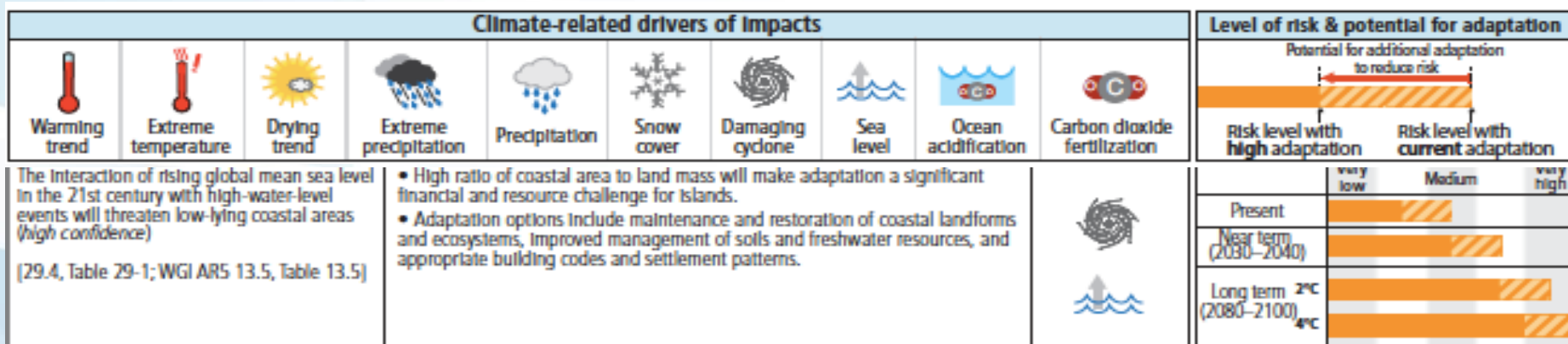
Curative measures
 Dealing with unavoidable and unavoidable impacts *ex-post*

Mechler and Schinko, 2016

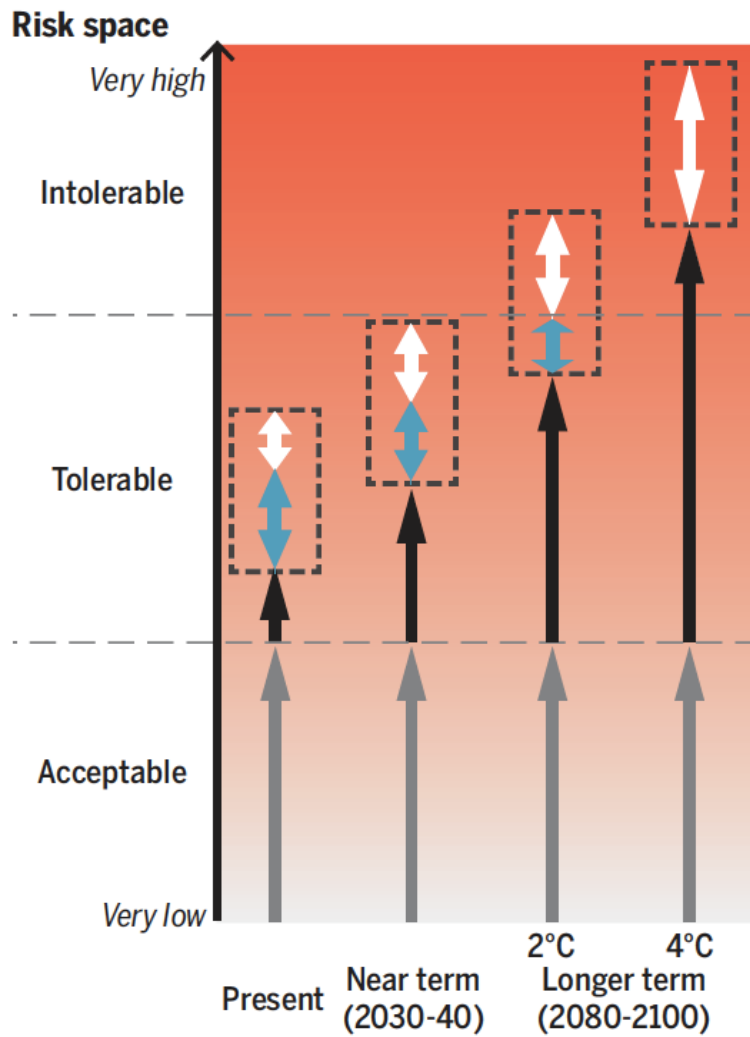
Small Islands





Small Islands: sea level rise and high-water events

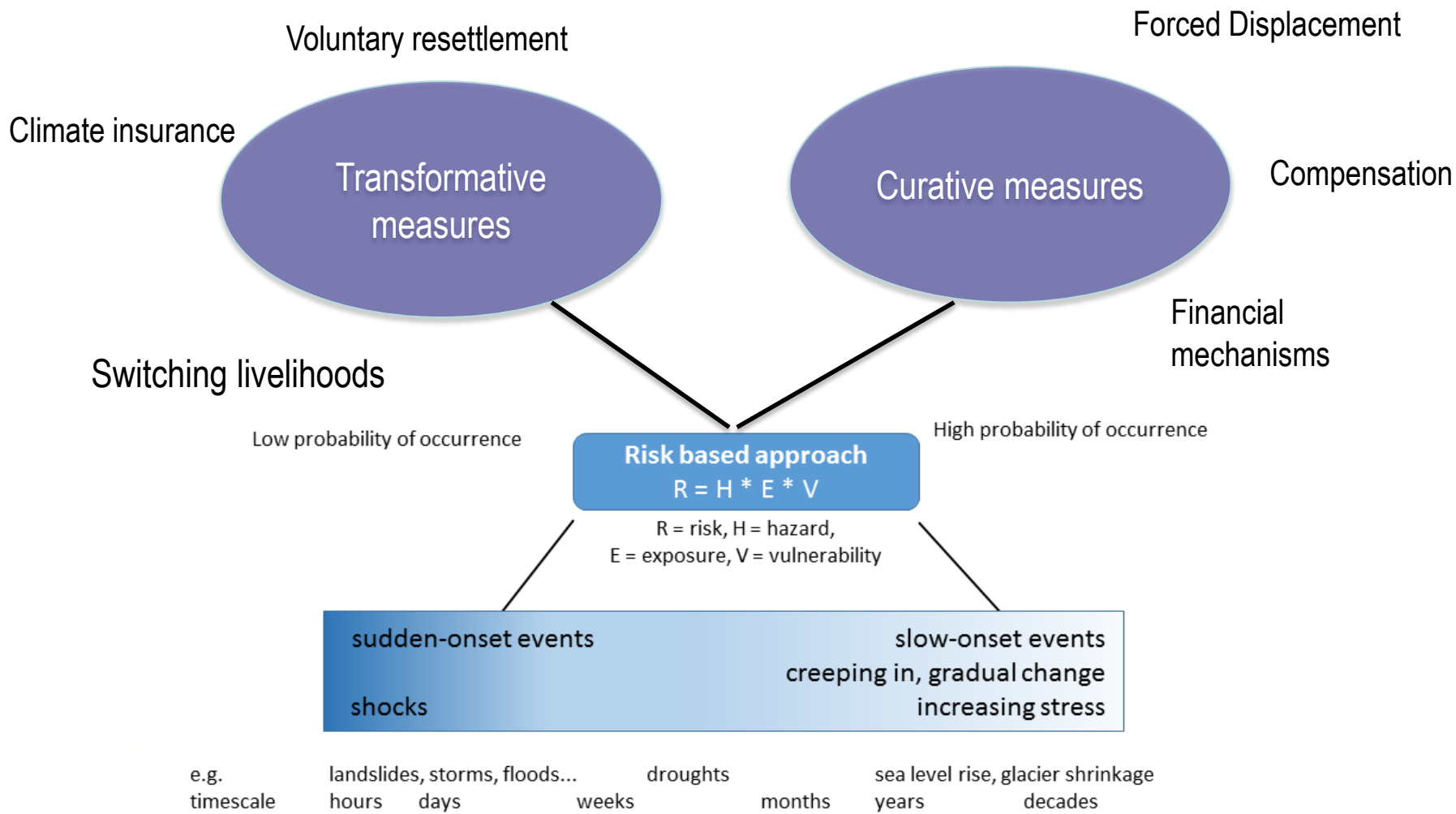


IPCC, 2014



 Residual risk
 Further potential for risk management
Implemented
Feasible

Risk and options space



Options space

Curative options

- Displacement coordination facility:
 - Legal protection from international law and finance for forced migration
 - Nansen Initiative: state-led effort for tackling disaster-induced cross-border displacement
- National-level L&D mechanisms/pools being set-up: Bangladesh, Philippines etc.

Options space

Transformative measures for risk management

- Going beyond corrective and prospective risk management
 - Livelihood transformation (→ SDGs)
 - Voluntary migration
- Today: debate largely on insurance
 - Pooling and sharing risks to diversify risks integrated with a broader view towards comprehensive DRM and building resilience against risks broadly
 - Innovative instruments involving Public Private Partnerships

Innovative Partnerships

- Need for novel science-society partnerships for
 - Detecting erosive risks
 - Identifying and negotiating transformative actions and responsibilities
 - Accessing national and int'l finance
- E.g. Peru:
 - Erosive risks
 - Devolution of DRR: National-local
 - \$ 100 Million Fund to support community-led disaster risk management
 - Strong-community-led partnerships emerging (Flood Resilience Alliance)



Summary

- Principled approach for identifying risk and policy space
- Integrated with, but distinct from CCA and DRR spaces
- Transformative and curative measures → seeing attention already
- Risk lense to motivate ambition on 1.5/2° C

Loss and Damage Network

Members' institutional affiliations

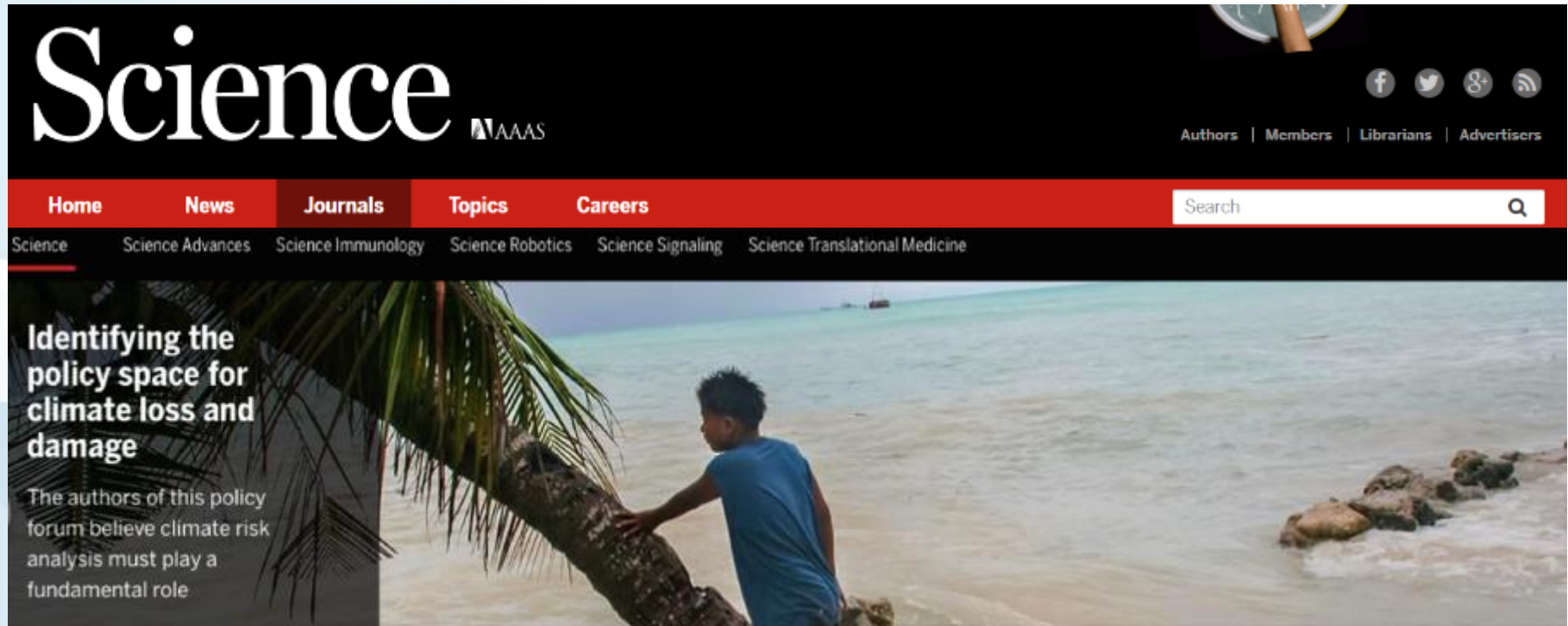


Contact



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Further reading



Mechler R. and Schinko T. (2016). Identifying the policy space for climate loss and damage. *Science* 354:6310, 21 October 2016.