THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Grantham Research Institute on Climate Change and the Environment

Overview of the range of approaches to address the risks of loss and damage

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Outline

- Addressing loss and damage: typologies
- Reflection on existing approaches
- Key challenges and open questions:
  - how to select the right approach?
  - how best to integrate approaches?
  - how to address slow-onset risks?

Addressing loss and damage

- The Goal: *"averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events"* (Paris Agreement, Article 8)

- A wide range of approaches exist – a typology is difficult due to different interpretations, characterizations and expectations.

- Also: Different risks require different responses – this is particularly important for sudden and slow onset events, but also for economic and non-economic losses.

- One way to look at it: Any activities aimed at
  - averting: mitigation and adaptation action that avoid future loss and damage
  - minimizing: 'managing' or 'reducing' current and future loss and damage
  - **addressing: dealing with current and future loss and damage occurrence, including those that are 'unavoidable', also known as residual risks.**

Surminski, Swenja and Lopez, Ana (2015) Concept of loss and damage of climate change – a new challenge for climate decision-making? A climate science perspective. Climate and Development, 7 (3). pp. 267-277

Types of approaches

KEY FINDINGS: Types of approaches to address L&D

Risk reduction

* Risk reduction measures are undertaken before an extreme event occurs and may be used effectively in the case of climate-related stressors which occur frequently and have relatively small impacts.
* These approaches can be categorized as structural measures (focusing on infrastructure to reduce the effects of extreme events) and non-structural measures (focusing on, planning, early warning and behavioral change, etc).
* These approaches are appropriate across all sectors of an economy and in all types of ecosystems. Usually the benefits of avoiding and reducing L&D outweigh the costs of investing in risk reduction measures.

Risk retention

* These approaches could be defined broadly as allowing a country to 'self-insure' itself against climatic stressors.
* Risk retention measures are taken through activities such as building the resilience of populations through social protection and related measures, or through financial means, such as establishing reserve funds for the purpose of offsetting unexpected financial burdens associated with climatic stressors.
* These approaches are applicable in every public sector, as well as in the private sector and at the household level.
* Sound understanding of potential L&D and the ability of a country to absorb L&D by means of its own social, economic, cultural and other resources, are foundational requirements.

Risk transfer

* These approaches help to shift the risk of L&D, mostly financial, from one entity to another. They are undertaken when a country or entity assesses that the potential L&D it could experience is greater than its ability to manage it.
* Risk transfer can be used in any sector, but it requires a sound analysis of the target community and the financial capacity.

Managing slow onset climatic process

* These approaches are combinations of risk reduction measures and climate change adaptation.
* More work is needed to explore the sectoral use of a range of activities to prepare for and manage the L&D related to slow onset climatic processes.

Enabling environment and managing the impacts of climate variability and change

* There is a case for creating frameworks or institutions that more closely link approaches to address L&D and emphasize complementarities.

Typology	Associated Actions
Adaptation and Mitigation	Mitigation and adaptation
Risk management	Insurance, insurance pools, catastrophe bonds, life insurance, DRR, sovereign disaster risk rating, climate services and early warning, engineering, capacity building
Limits to adaptation	Risk transfer, social safety nets, micro insurance, innovations in livelihoods (early warning), participation
Existential	Compensation, migration facilities, homeland resettlement, acknowledgement, official apologies, memorial, historical preservation, international litigation

Parker, H.R., Boyd, E., Cornforth, R.J., James, R., Otto, F.E.L. and Allen, M.R. (2016) Stakeholder perceptions of event attribution in the loss and damage debate. Climate Policy.

- Risk reduction;
- Risk retention;
- Risk transfer;
- Managing slow onset climatic processes;
- Enabling environments and managing the impacts of climate variability and climate change.

UNFCCC 2012: A literature review on the topics in the context of thematic area 2 of the work programme on loss and damage: a range of approaches to address loss and damage associated with the adverse effects of climate change - http://unfccc.int/resource/docs/2012/sbi/eng/inf14.pdf

Some examples from developing countries

Risk reduction:

- Mobile flood barriers and mangrove planting (Samoa); Use of technology for the mitigation of drought (Sri Lanka); Century-old irrigation system camellones (Bolivia); Silo construction for the reduction of post-harvest losses (Kenya)

Risk retention:

- Community sharing of funeral costs (Philippines); Familias en Accion conditional cash-transfer programme (Honduras);

Risk transfer:

- El Nino index risk insurance (Peru); African Risk Capacity; Catastrophe bond (Mexico); Agricultural insurance (India)

Managing incremental changes and slow onset events:

- The Pacific Islands Framework for Action on Climate Change; Soil Conservation Act (Barbados);

The list goes on and on … but: how effective, how well funded, how integrated???

Key observations and lessons learned from existing applications

General observations:

- No silver bullet – a combination of approaches is required.
- Persistent lack of knowledge on effectiveness and limits of existing approaches remains.
- Perspective and understanding of loss and damages (scale, type, time) will determine choice of instruments.
- Developing countries face many challenges, amongst them data, resources, enabling environment
- Important to join up different schools of thought - adaptation, disaster risk reduction, social justice, development – rather than creating new silo approaches
- Awareness of political sensitivities is important

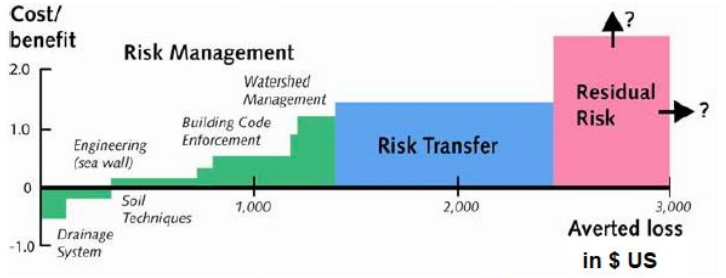
Three specific points relevant for the discussion in Manila:

1. Importance of selecting the **right tool mix**
2. Biggest gaps are for **slow-onset risks**
3. Are we succeeding in **integrating approaches**?

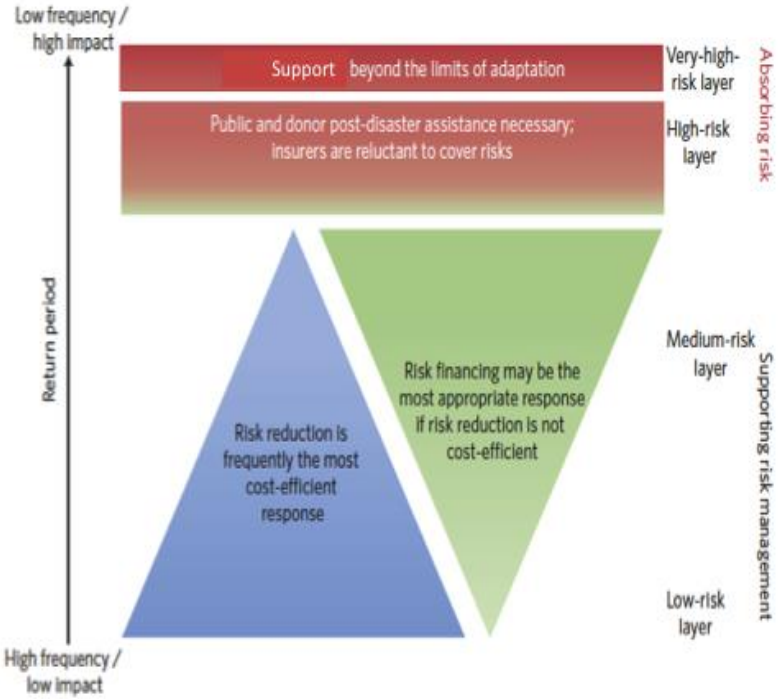
1. Identifying the right mix

- Cost curves (Economics of Climate Adaptation) – showing cost-benefits of different instruments Risk reduction
- Pilot studies – testing and learning lessons
- Risk Layering – matching risks and instruments

Costs and benefits of different approaches to address loss and damage



Source: Young (2009), adapted from Economics of Climate Adaptation Working Group (2009).



Source: Mechler, R., Bouwer, L.M., Linnerooth-Bayer, J., Hochrainer-Stigler, S., Aerts, J.C.J.H.,Surminski, S., Williges, K., 2014. Managing unnatural disaster risk from climate extremes. Nat.Clim. Change 4, 235–237. doi:10.1038/nclimate2137

2. Slow-onset approaches?

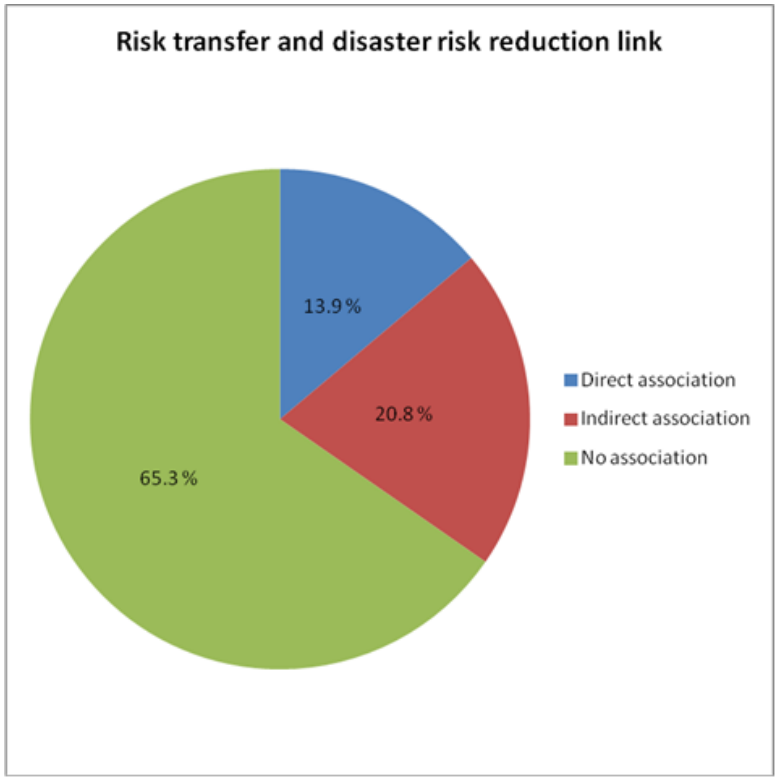
Table 8
Foundational resource requirements of approaches to address slow onset climatic processes

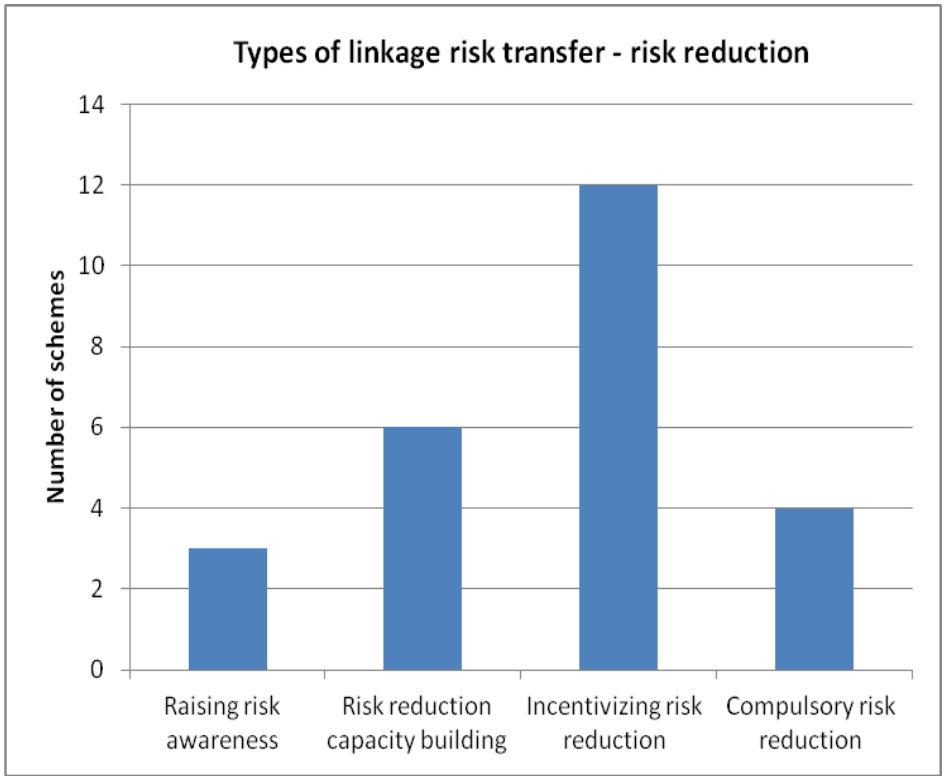
	Current approaches	*Future approaches*
Budget	• Policy frameworks • Political and social dialogue • Investments in research and innovation	• Future approaches may range from 'extreme' physical infrastructure investments to new forms of social organization and population distribution. Such approaches will be difficult to finance
Infrastructure or equipment needed	• Communication • Engagement of citizens and communities • National dialogue and policymaking • Regional dialogue	• All of the current dialogue and planning, plus more-intensive regional and national monitoring and coordination approaches • Infrastructural measures on different, possibly larger scales • Relocation of at-risk populations • Transboundary livelihood arrangements for people whose traditional livelihoods have become impossible in areas of origin • Provisions for access to freshwater on a large scale • Large-scale livelihood programmes
Information and data	• Hazard information • Risk mapping • Weather information • Forecasting systems and modelling • Social and physical thresholds	• Hazard information • Risk mapping • Weather information • Forecasting systems and modelling • Social and physical thresholds
Technical capacity (experts, etc.)	• Policy and planning	• Policy and planning • Infrastructure • Weather and climate modelling • Threshold monitoring • Economic and financial tools • Economic/livelihood alternatives • Regional diplomatic relations

UNFCCC 2012: A literature review on the topics in the context of thematic area 2 of the work programme on loss and damage: a range of approaches to address loss and damage associated with the adverse effects of climate change - http://unfccc.int/resource/docs/2012/sbi/eng/inf14.pdf

3. Integrated approaches?

The full potential of utilizing risk transfer for risk reduction and risk management is far from exhausted…





Analysis based on data from "ClimateWise Compendium of disaster risk transfer initiatives in the developing world"; Surminski and Oramas-Dorta 2014

… however, recent progress is promising, eg. ARC, InsuResilience

Thank you for your attention.

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