

**28 April 2023**

# Adaptation Policy, Finance, Community

Climate change: resilience, transformation, and equity – IPCC Outreach Event, Bangkok

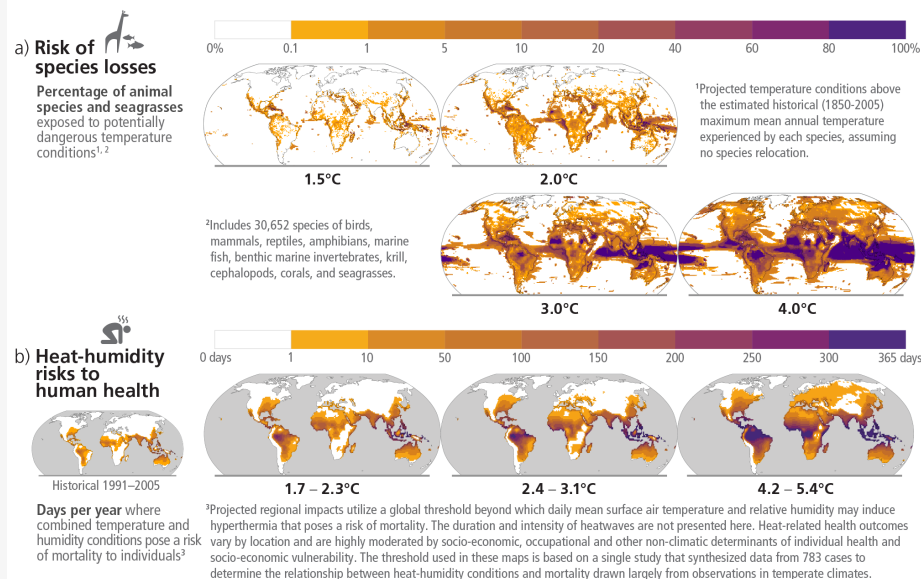
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# Asia (and SE Asia) are particularly prone to climate risks

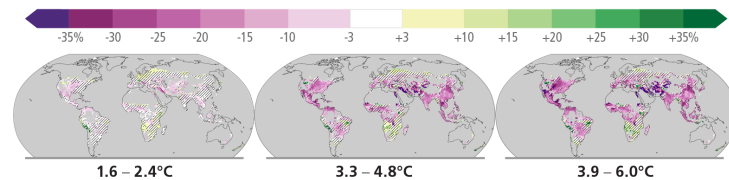
Future climate change is projected to increase the severity of impacts across natural and human systems and will increase regional differences

Examples of impacts without additional adaptation

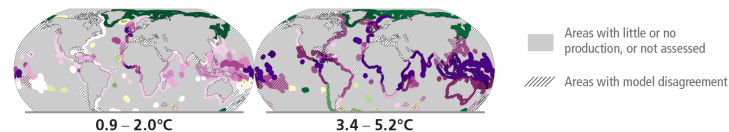


## c) Food production impacts

**c1) Maize yield<sup>4</sup>**  
Changes (%) in yield

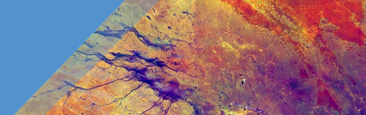


**c2) Fisheries yield<sup>5</sup>**  
Changes (%) in maximum catch potential



Risks are especially high for rapidly growing coastal cities in SE Asia without adaptation

Local adaptation approaches are needed



## But adaptation cannot be implemented on its own sake



*We have a narrowing time window to reach climate targets through ambitious reductions in GHG emissions, deal with climate risks, stop biodiversity loss and, at the same time, improve peoples' wellbeing – for example by reducing poverty and hunger, improving health and livelihoods and providing more people with clean energy and water. This is **climate resilient development**.*



**(d) Contributions of urban adaptation options to Climate Resilient Development.**

Nature-based solutions and social policy as innovative domains of adaptation show how some of the limitations of grey infrastructure can be mediated. A mixture of the three categories has considerable future scope in adaptation strategies and building climate resilience in cities and settlements.

Contribution to  
Climate Resilient  
Development



Confidence in  
positive contribution or  
negative contribution

**Grey/Physical Infrastructure**

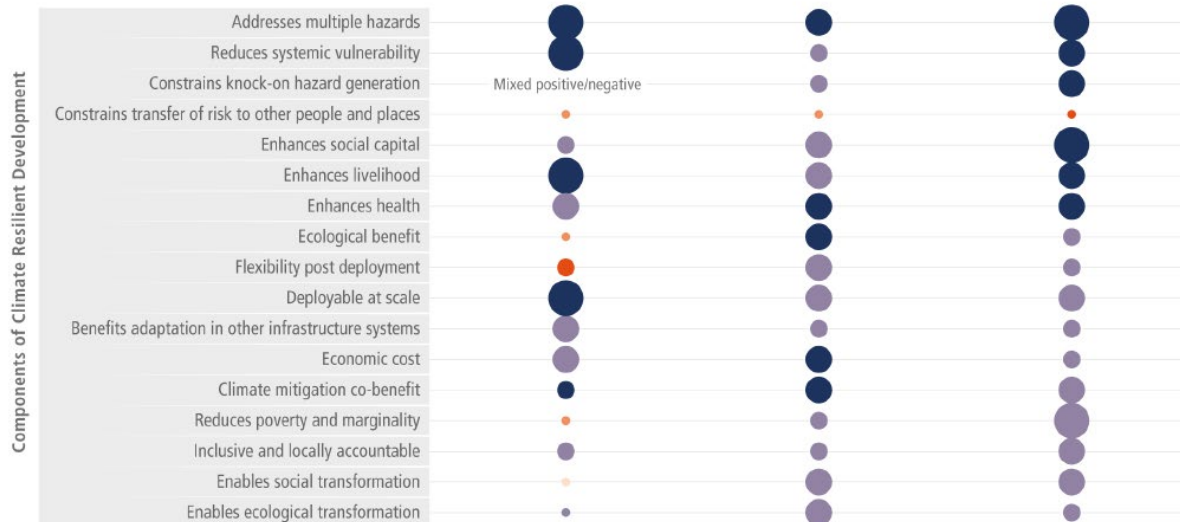
Dikes, seawalls | water storage, greywater use | slope revetments | air conditioning | passive cooling | upgrading transport, energy, water & sanitation infrastructure | Information & Communication Technologies | urban design & building regulations

**Nature-based Solutions**

Urban agriculture | street trees | green roofs | parks and open space | community gardens | rain gardens | bioswales | retention ponds | riverbanks | floodplains and watershed restoration

**Planning and social policy**

Land use planning | social safety nets | emergency and disaster risk management | health services | climate education | heritage conservation



# CRD in cities?

Much current focus on **Grey/Physical infrastructure** as adaptation options to reduce climate risk

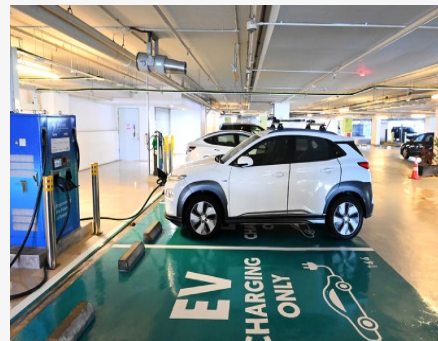
But approaches utilising **Nature-based Solutions and Planning and Social Policies** are assessed to have strong potential to enable CRD

**Figure 2:** The figure is based on Table 6.6 which is an assessment of 21 urban adaptation mechanisms. Supplementary Material 6.3 provides a detailed analysis including definitions for each component of Climate Resilient Development and the evidences. {Table 6.6; 6.3.1; 6.3.2; 6.3.3; TS9.d}

# How can CRD operate in cities and settlements in Asia?

**Reduce risk via adaptation** – examine not just infrastructure but **also nature-based solutions with planning and social policy** as solutions *e.g. security of land tenure to reduce vulnerability for informal settlements, “green” standards for new/retrofitted buildings, and/or planning for land protection from sea level rise and other climate hazards*

**Reduce emissions** not just by technologies but also via **policies that reduce demand-side/carbon-intensive behaviour** *e.g. policy shift to electric vehicles and charging infrastructure; encourage public transportation & car-lite policies*



## How can CRD operate in cities and settlements in Asia?

**Improve livelihoods** not just by ad hoc decision making but also via **inclusive, long-term partnerships in communities** that reduce poverty and enables transformation

*e.g. “green” employment transition with new renewable energy technologies & infrastructure*

**Look for co-benefits** across adaptation options that enhance mitigation, biodiversity conservation and sustainable development

*e.g. green spaces & water sensitive urban design that reduce risk and provide common & shared spaces for recreation*

**Integrated, inclusive planning works**



{Channel NewsAsia (top)Nparks (below)}



## The adaptation “gap” and finance



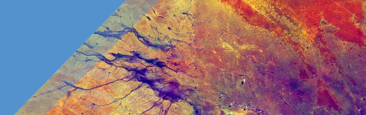
Globally tracked adaptation finance still represents only a **small portion of total climate finance**, is also uneven and has developed heterogeneously across regions and sectors

(USD 3.7 Bn of investments in adaptation projects in 2017–2018, of which only **3–5% had an urban component**)

Investment in urban adaptation has **not kept pace** with innovations in policy and practice

Adaptation finance mainly from public sector but potential for leveraging **public-private partnerships in cities**

[Jay Hsu (Flickr)]



# THANK YOU

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