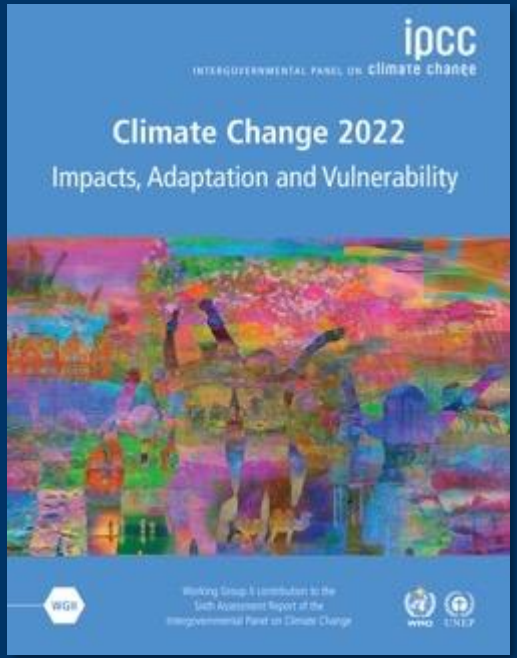
ipcc
INTERGOVERNMENTAL PANEL ON climate change
WMO UNEP

15 August 2022

Climate Resilient Development

Prof. Debra Roberts
IPCC Co-Chair Working Group II – Impacts Adaptation and Vulnerability

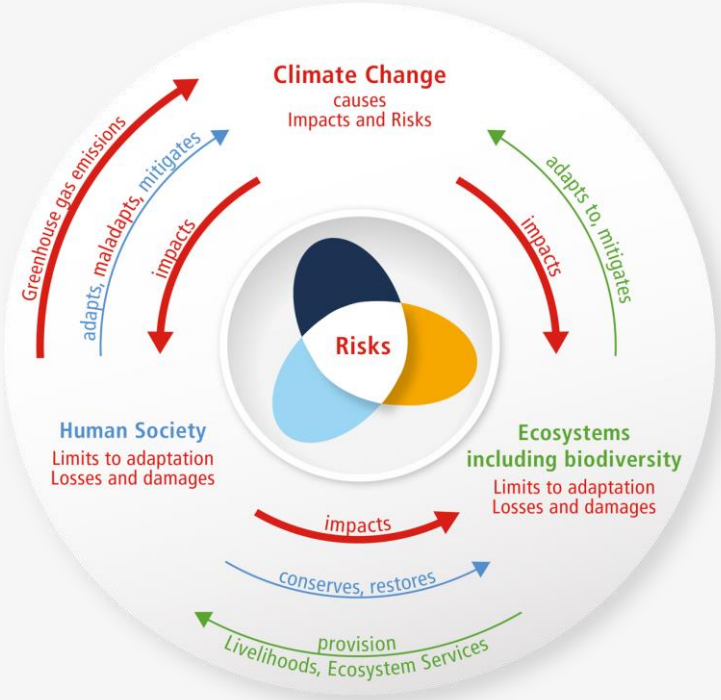
[Axel Fassio/CIFOR_Flickr_CC BY-NC-ND / Unsplash]



“The scientific evidence is unequivocal: climate change is a threat to human well-being and the health of the planet.

Any further delay in concerted global action will miss the brief, rapidly closing window to secure a liveable and sustainable future for all.

New understanding of interconnections: climate, ecosystems and human society



The risk propeller shows that risk emerges from the overlap of:

- Climate hazard(s)
- Vulnerability
- Exposure

...of human systems, ecosystems and their biodiversity

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Climate Resilient Development

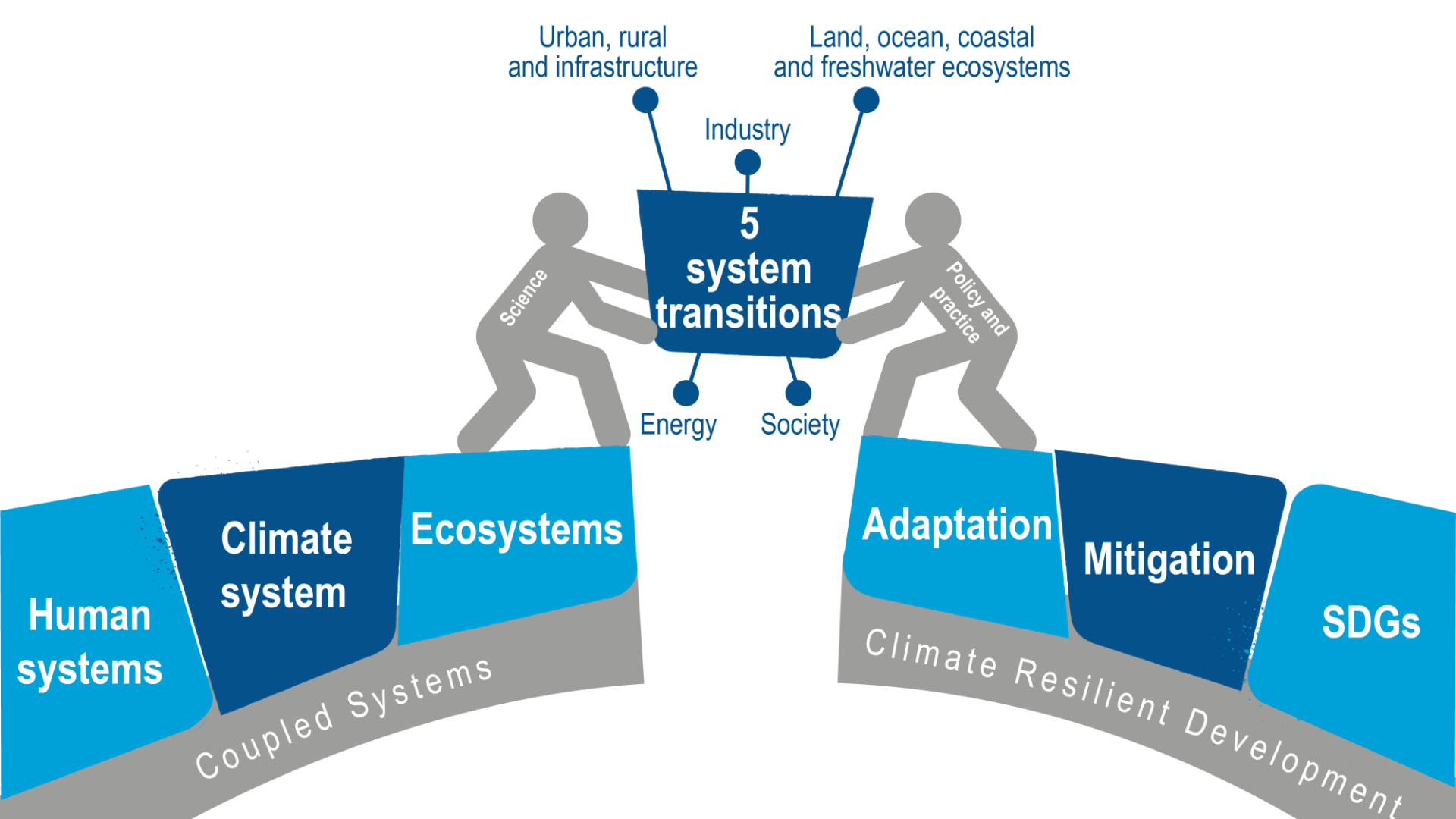
- **AR5 (2014):** '*development trajectories that combine adaptation and mitigation to realize the goal of sustainable development*' (Denton et al., 2014).

- **AR6 Working Group II (2022):** '*a process of implementing greenhouse gas mitigation and adaptation measures to support sustainable development for all.'* (Schipper et al, 2022)

- **AR6 Working Group III (2022)** notes: 'Accelerated and equitable climate action in mitigating, and adapting to, climate change impacts is critical to sustainable development.'

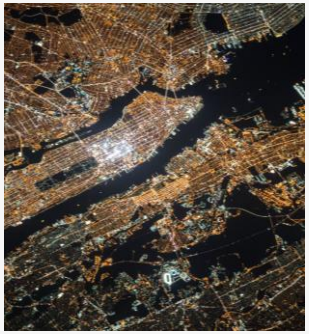
Climate Resilient Development cannot be achieved through incremental change…

Transformation entails system transitions strengthening the resilience of ecosystems and society within the context of a changing climate


Urban, rural and infrastructure
Land, ocean, coastal and freshwater ecosystems
Industry
5 system transitions
Science
Policy and practice
Energy
Society
Human systems
Climate system
Ecosystems
Coupled Systems
Adaptation
Mitigation
SDGs
Climate Resilient Development

5 System Transitions

Land, ocean, coastal and freshwater ecosystems.



Urban, rural and infrastructure

Energy

Industry

Society

- Make possible the adaption required for human health and well being; economic and social resilience; ecosystem health and planetary health
- Are important for achieving the low global warming levels that would avoid many limits to adaptation

Stop emitting greenhouse gases….

…still work hard at achieving sustainable development….

this development needs to be low-carbon AND manage climate risk through adaptation…

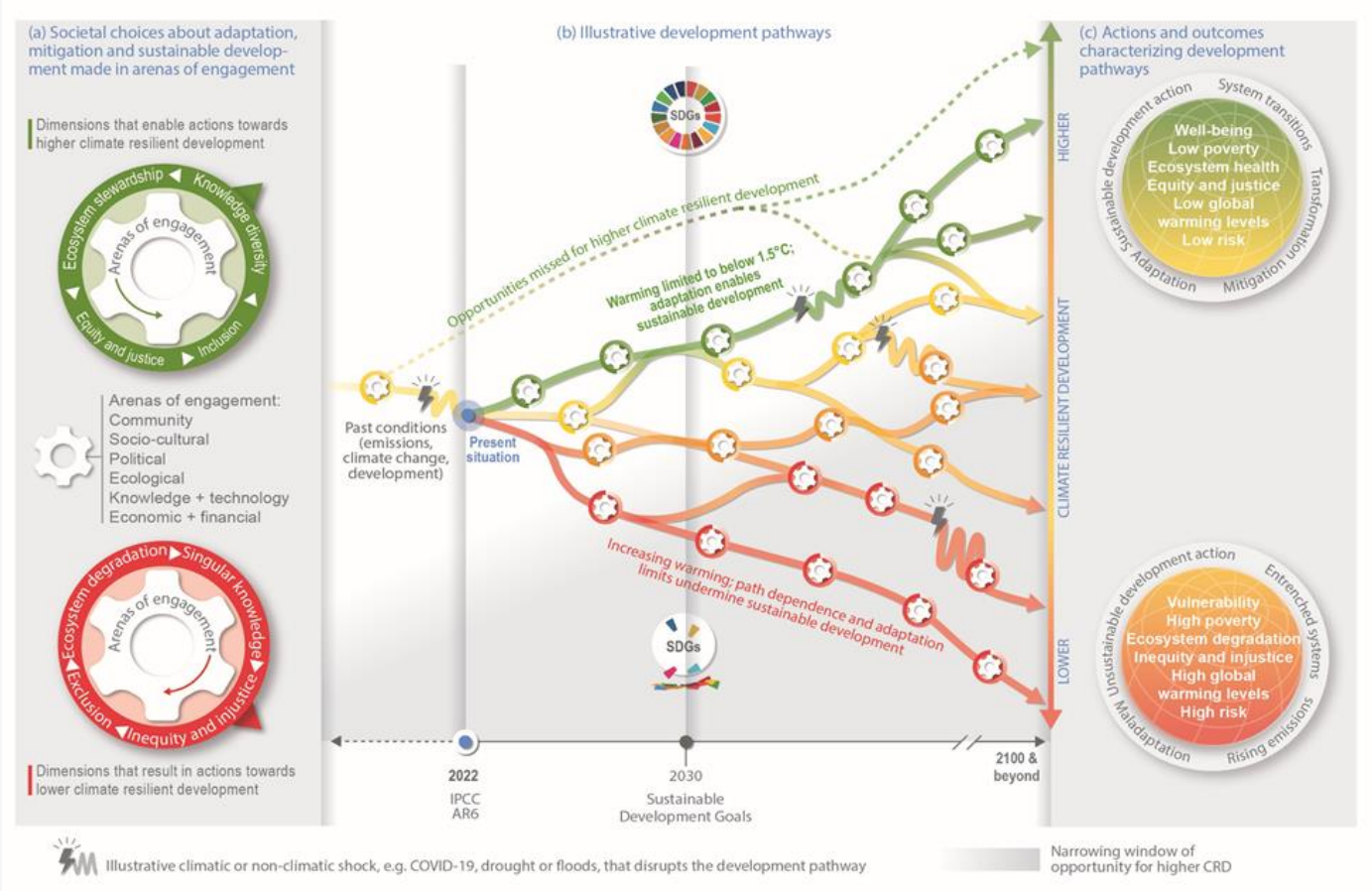
and invest in key system transitions such as sustainable urban areas and enhancing biodiversity

This leads to **Climate Resilient Development**

5 Key points for operationalising Climate Resilient Development

1. Climate change is not separate from development.
2. Climate resilient development is not the same as sustainable development – it is more – how the integration happens and how societies make choices.
3. Business-as-usual development can result in maladaptation and increase emissions and result in adaptation limits being exceeded - locking societies into non-CRD pathways.
4. Climate justice is at the heart of climate resilient development – the solutions we choose depend who is the room.
5. Every development decision made will move toward or away from climate resilient development (SPM 5).

WGII: SPM 5 Climate Resilient Development



WGII: SPM 5 Climate Resilient Development

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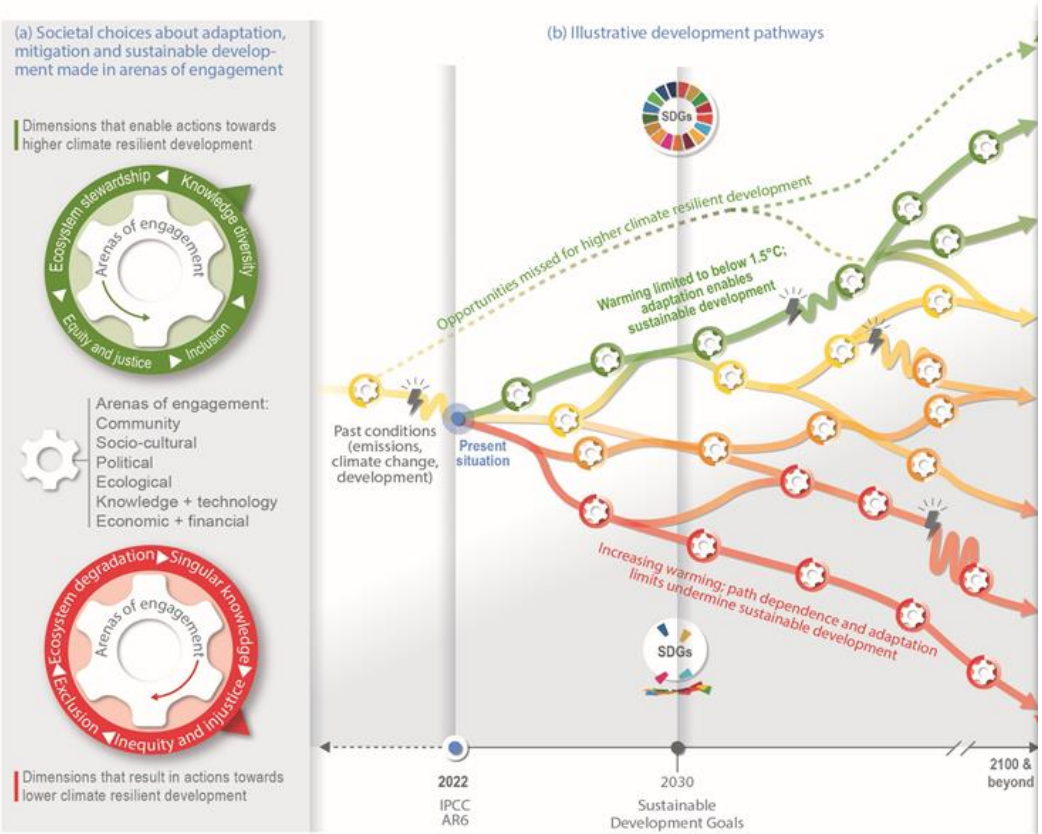
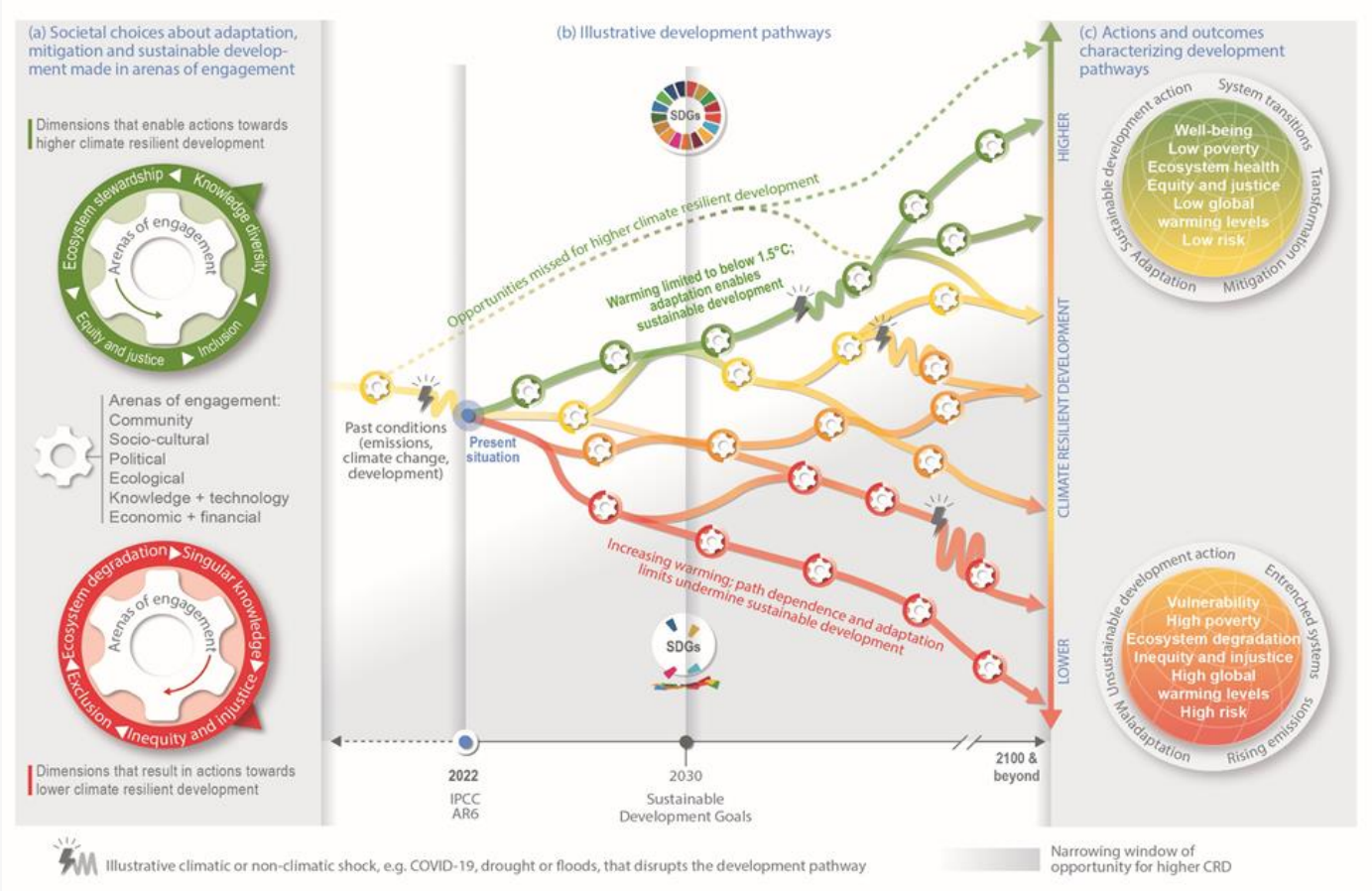
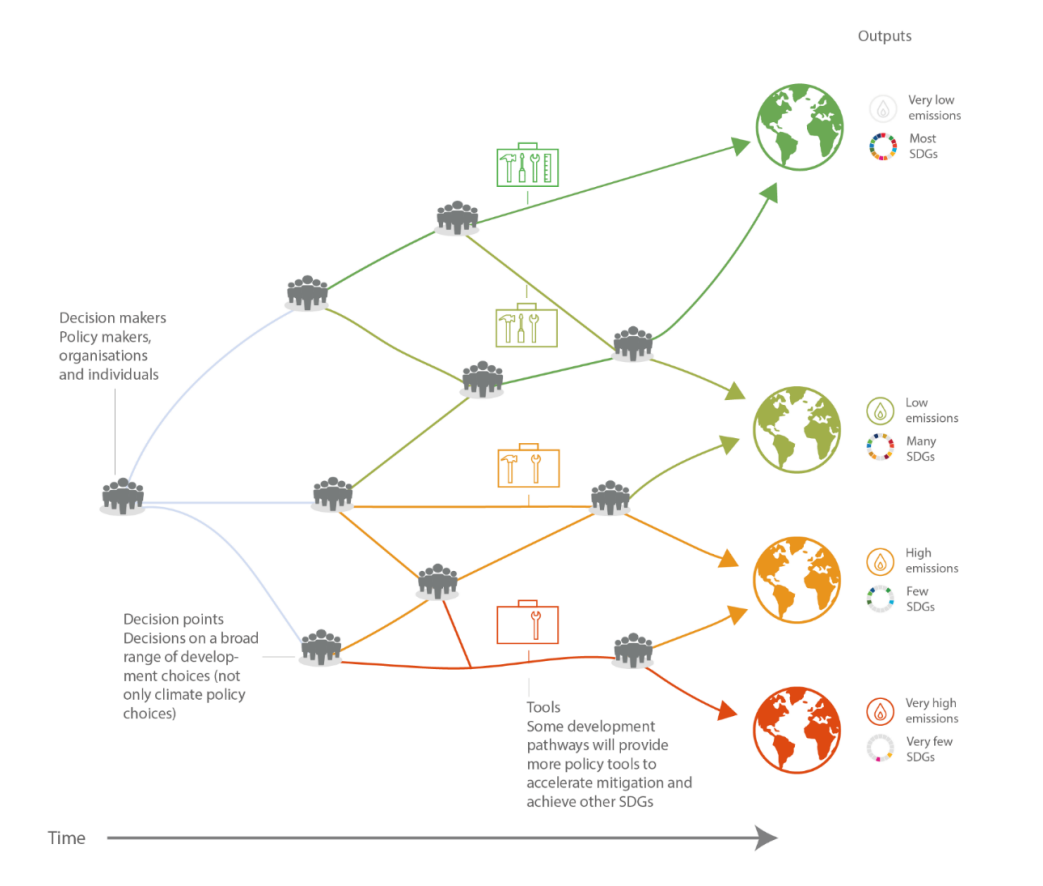


WGII: SPM 5 Climate Resilient Development



WGIII: Fig. 4.7 Shifting Development Pathways to Sustainability



Climate Resilient Development in Africa

Chapter 9: Africa

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Africa: Context

Africa has contributed **among the least to greenhouse gas emissions**, yet key development sectors have already experienced **widespread losses and damages** attributable to anthropogenic climate change, including biodiversity loss, water shortages, reduced food production, loss of lives and reduced economic growth.





Africa: Context

- **Development needs**, growing urban populations – but there is limited evidence of proactive climate adaptation in African cities.
- **Climate change impacts** – HIGH in all sectors.
- **Crop yield losses**, even after adaptation, are projected to rise rapidly above 2°C global warming. Limits to adaptation are already being reached in coral reef ecosystems.
- **Access to adaptation funding** – very challenging.
  - African institutions struggle to be accredited for direct access to adaptation funds because of the complicated and bureaucratic processes.
  - As of December 2019, over 80% of all developing countries had no national direct access entities.
  - The current pattern of GCF may not be appropriate to quick response and recovery needs in Africa.

Positive responses

- There is limited evidence for economic growth alone reducing climate damages, but under scenarios of **inclusive and sustainable development**, millions *fewer* people in Africa will be pushed into extreme poverty by climate change, and negative impacts to health and livelihoods can be reduced by 2030.
- **Gender-sensitive and equity-based adaptation approaches** reduce vulnerability for marginalised groups across multiple sectors in Africa, including water, health, food systems and livelihoods.
- **Social protection programmes** such as cash transfers and healthcare access are effective at reducing climate risk.
- **Risk-sensitive infrastructure delivery and equitable provision of basic services** can reduce climate risks and provide net financial savings

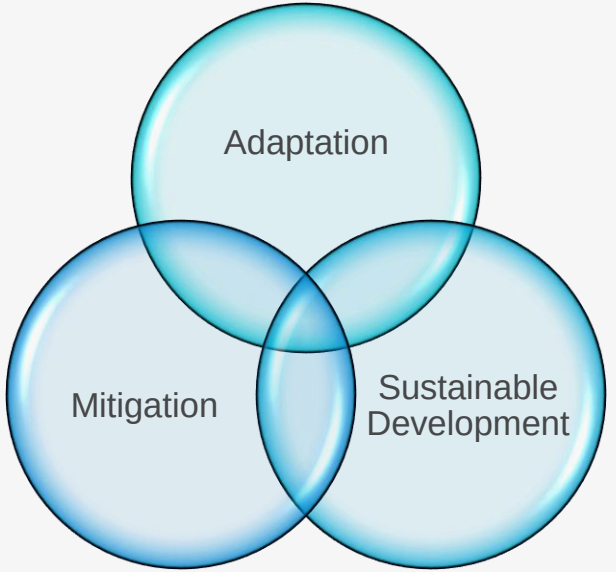
Enablers of Climate Resilient Development in Africa

- **Limiting global warming to 1.5°C** is expected to substantially reduce damages to African economies and ecosystems.
- **Governance for climate resilient development** includes long-term planning, all-of-government approaches, transboundary co-operation and benefit-sharing, development pathways that increase adaptation and mitigation and reduce inequality, and NDC implementation.
- **Ecosystem-based adaptation** in African cities has huge potential, including the fast-growing small and medium sized cities (not as well resourced as mega-cities).
- **Holistic thinking centred on equity and justice** – avoiding quick fixes such as tree-planting without deeper reflection on nature-society needs.

  ➢Need for **cross-sectoral or 'nexus' approaches** (water-energy-food; climate-ecosystems-human health etc) → can deliver multiple co-benefits and better avoid maladaptation.

Enablers of Climate Resilient Development in Africa

- Funding – for research by African researchers, not just *on* Africa
  - From 1990–2019, research on Africa received just 3.8% of climate-related research funding globally.
  - 78% of this funding for Africa went to EU and north American institutions and only 14.5% to African institutions.

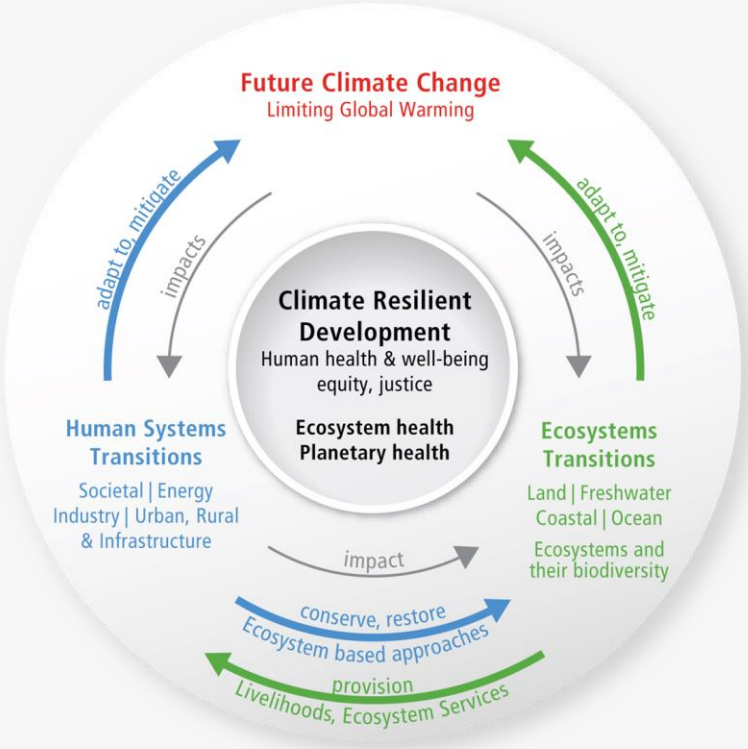


It is all about system change

- Climate Resilient Development indicates we need system change not climate change….

From urgent to timely action

Governance
Finance
Knowledge and capacity
Catalysing conditions
Technologies



Photos: 1 Axel Guibourg; 2 Hugh Han; 3 Axel Fassio/CIFOR

THANK YOU

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