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Marsh McLennan Advantage

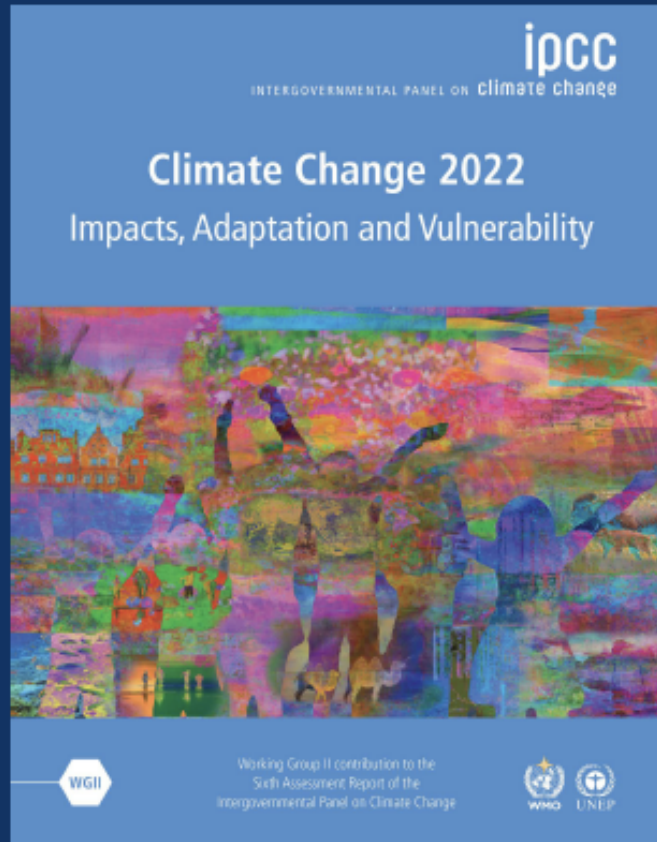
November 2022



Storyline



- The 3 As of COP 27: **Africa, Accountability, Action**
- The **science** is clear – take a look at the IPCC’s recent reports.
- **Transitioning to net zero** is difficult and doing so while the climate is already changing is even harder.
- Achieving net zero without **adapting** to the physical risks of climate change is not possible.
- **Climate data and analytics** have come a long way – but does it get used, is it usable?
- **Nature-based solutions** are a key tool, but we need right metrics.
- **Climate finance** at the heart of the discussions – but do we have the right instruments and incentives?

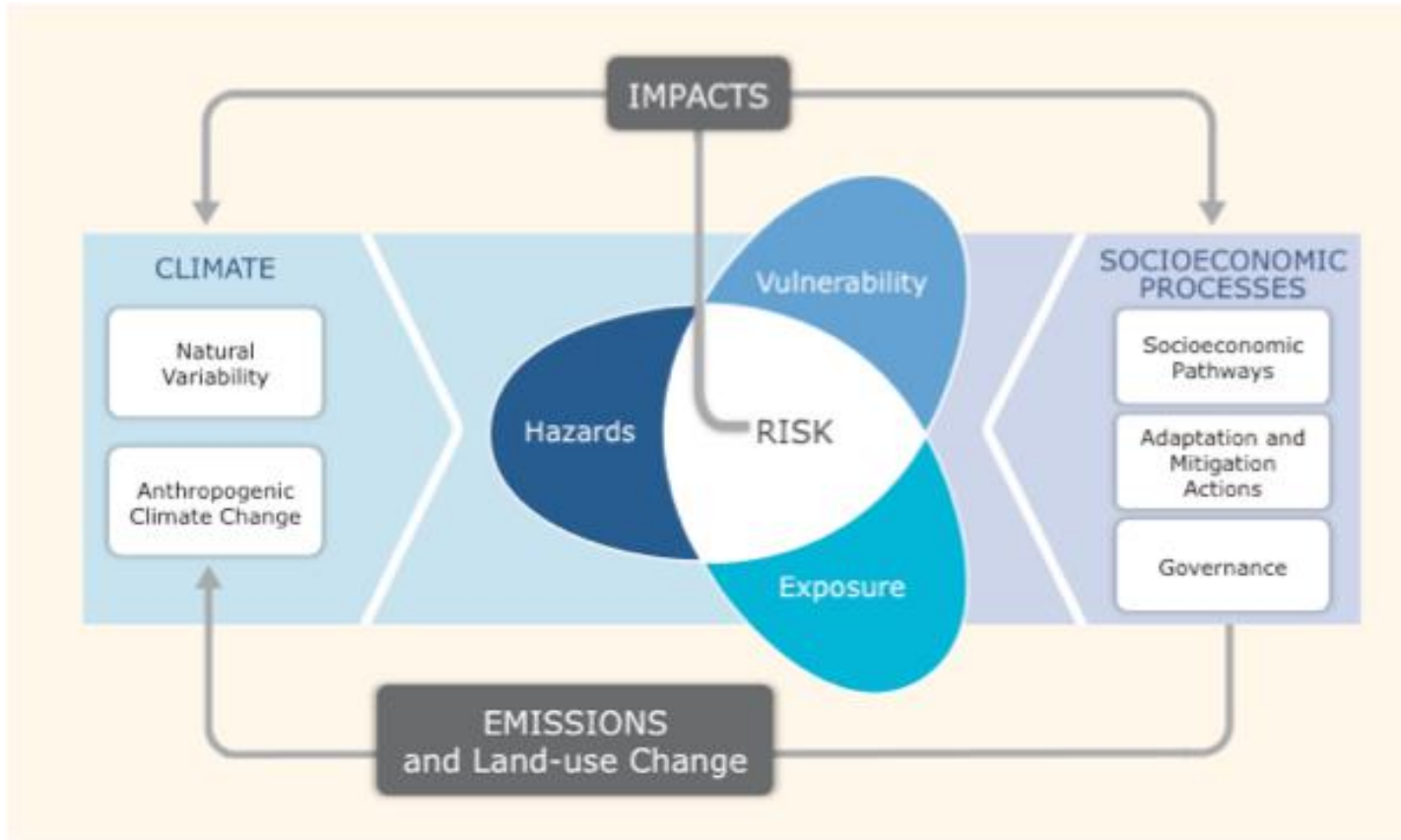


The scientific evidence is unequivocal: climate change is a threat to human well-being and the health of the planet.

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

This report offers solutions to the world.

The climate risks perspective

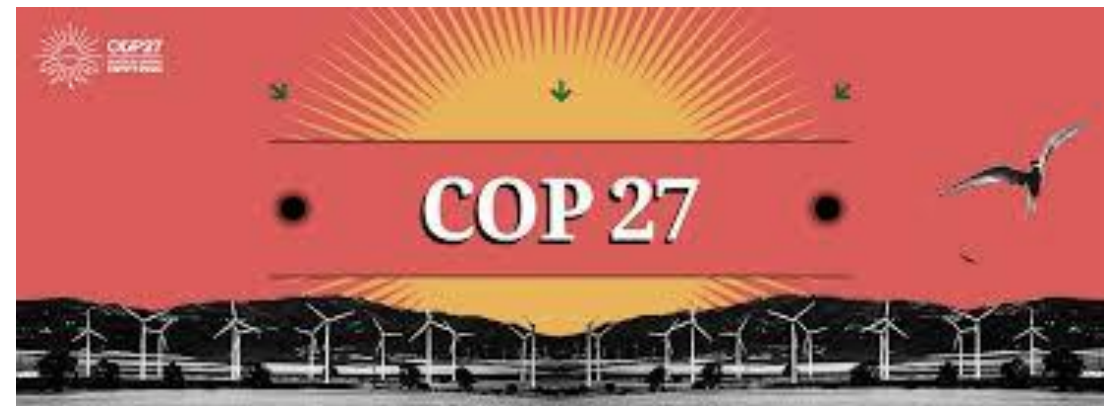


*“Risk from a changing climate comes from **vulnerability** (lack of preparedness) and **exposure** (people or assets in harm’s way) overlapping with **hazards** (triggering climate events or trends)”*

Risk = exposure + vulnerability + hazard

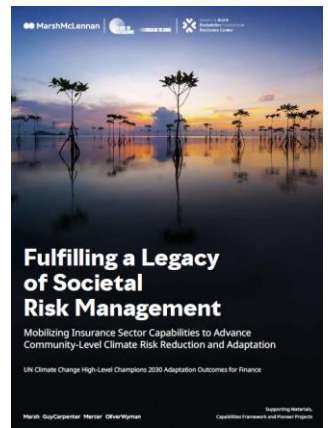
The transition challenge

- The Energy Trilemma is in full display: Achieving energy security, equity and environmental sustainability.
- 2022 as a test year: how strong are the commitments, how vocal the protesters, how visible the political leaders?
- 2022 also demonstrated the risks to the transition from a changing climate: heat and droughts as a challenge to the energy system particularly for hydropower.

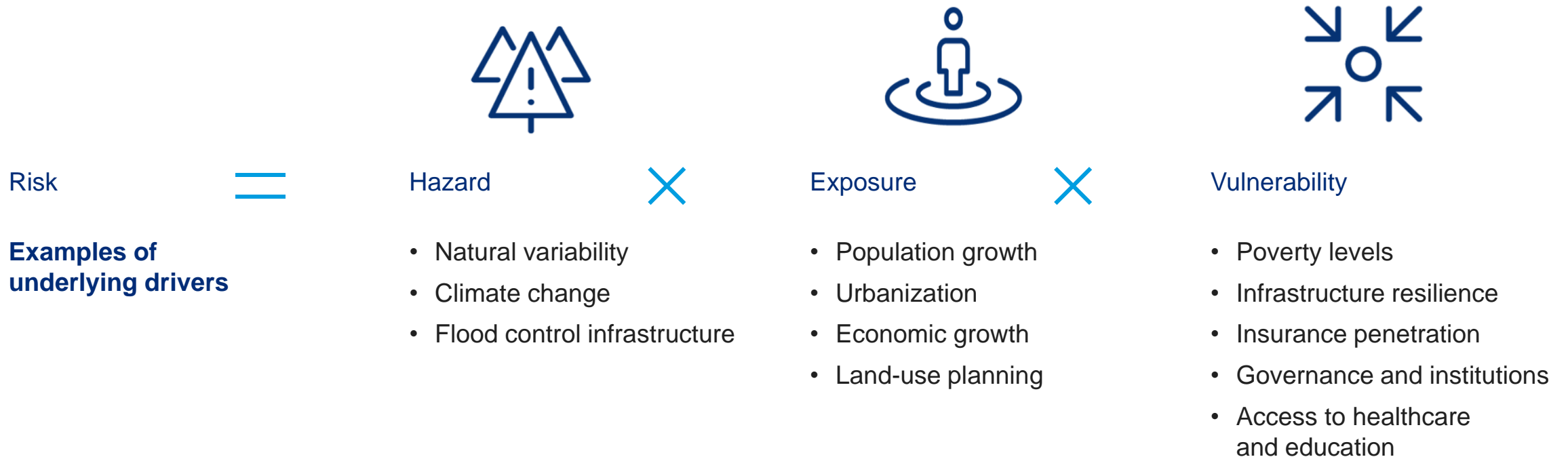


The resilience challenge

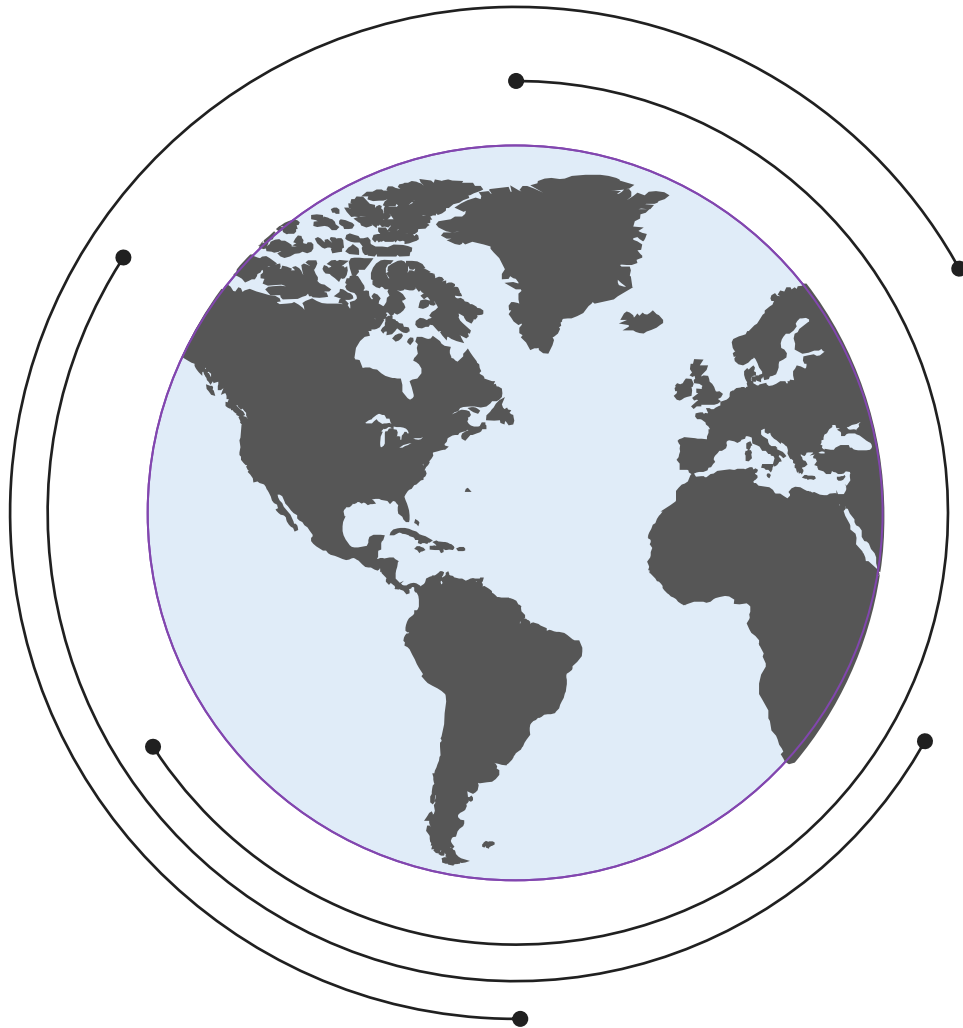
- Climate resilience is gaining traction.
- Risk of lock-ins: Today's decisions don't consider tomorrow's risks.
- Adaptation and resilience is an investment opportunity.
- There are many environmental, social and economic co-benefits.
- A clear vision and measurable targets for adaptation are needed.



Components and underlying drivers of climate risk



Example flooding



Population affected

Present day: 18%
1.5°C: 31%
2°C: 36%
3.5°C: 45%

Urban areas affected

Present day: 12%
1.5°C: 24%
2°C: 28%
3.5°C: 36%

Power plants affected

(% of power generation capacity)
Present day: 19%
1.5°C: 33%
2°C: 36%
3.5°C: 42%

International airports affected

(% of airport seats)
Present day: 17%
1.5°C: 31%
2°C: 33%
3.5°C: 40%

International ports affected

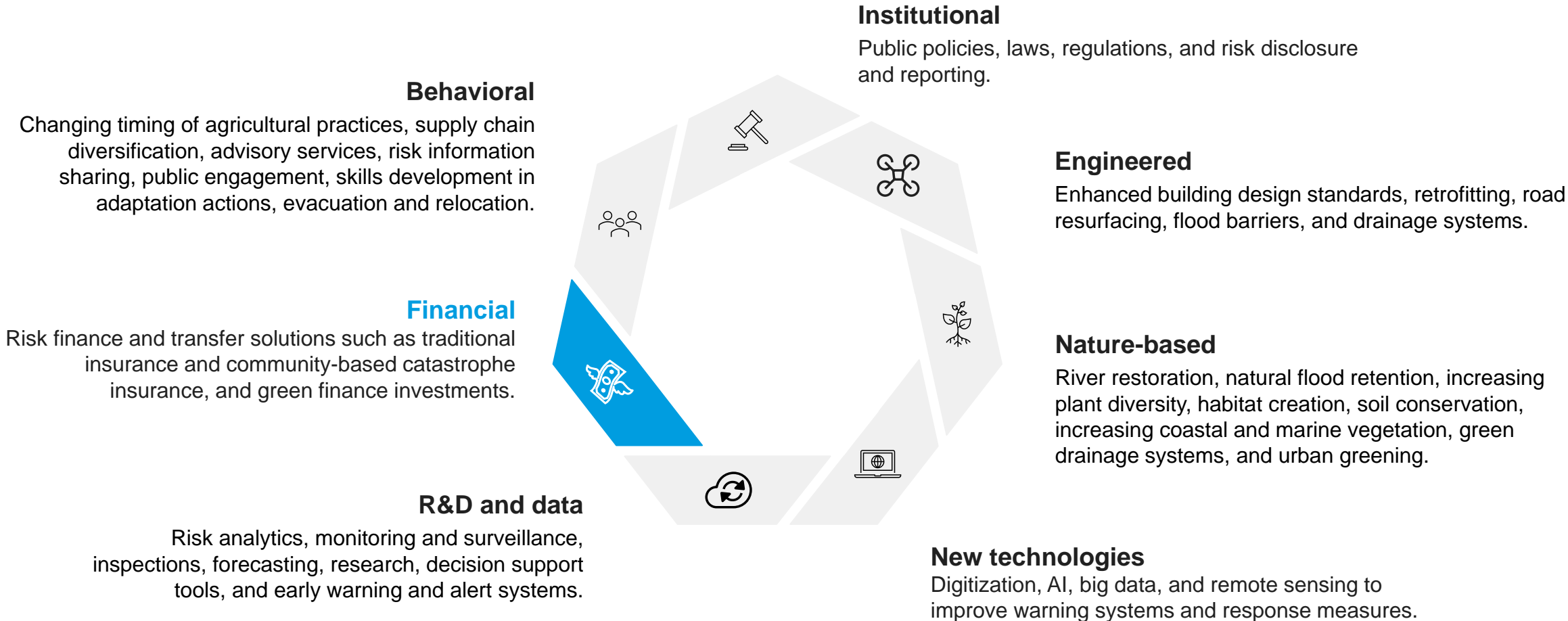
(% of trade outflows)
Present day: 22%
1.5°C: 40%
2°C: 45%
3.5°C: 52%

Source: Marsh McLennan estimates

Note: Future percentages are calculated using present values of population and assets

Solutions for climate resilience

Every \$1 invested in climate resilience today will save at least \$5 of damages in the future.



The nature challenge

SIXTH ASSESSMENT REPORT

Working Group II – Impacts, Adaptation and Vulnerability

ipcc

INTERGOVERNMENTAL PANEL ON climate change



Nature's crucial services at risk in a warming world



Pollination



Coastal protection



Tourism / recreation



Food source



Health



Water filtration

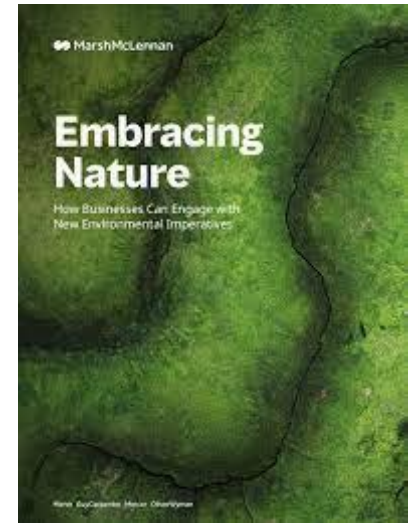


Clean air



Climate regulation

[Ocean Image Bank/ Shaun Wolfe, Dimitris Poursanidis; FAO/Kurt Arrigo, Unsplash, Axel Fassio/CIFOR CC BY-NC-ND]



Climate change, forests and water are interlinked

COP 27

CDP

Partnership with OliverWyman

The climate finance challenge

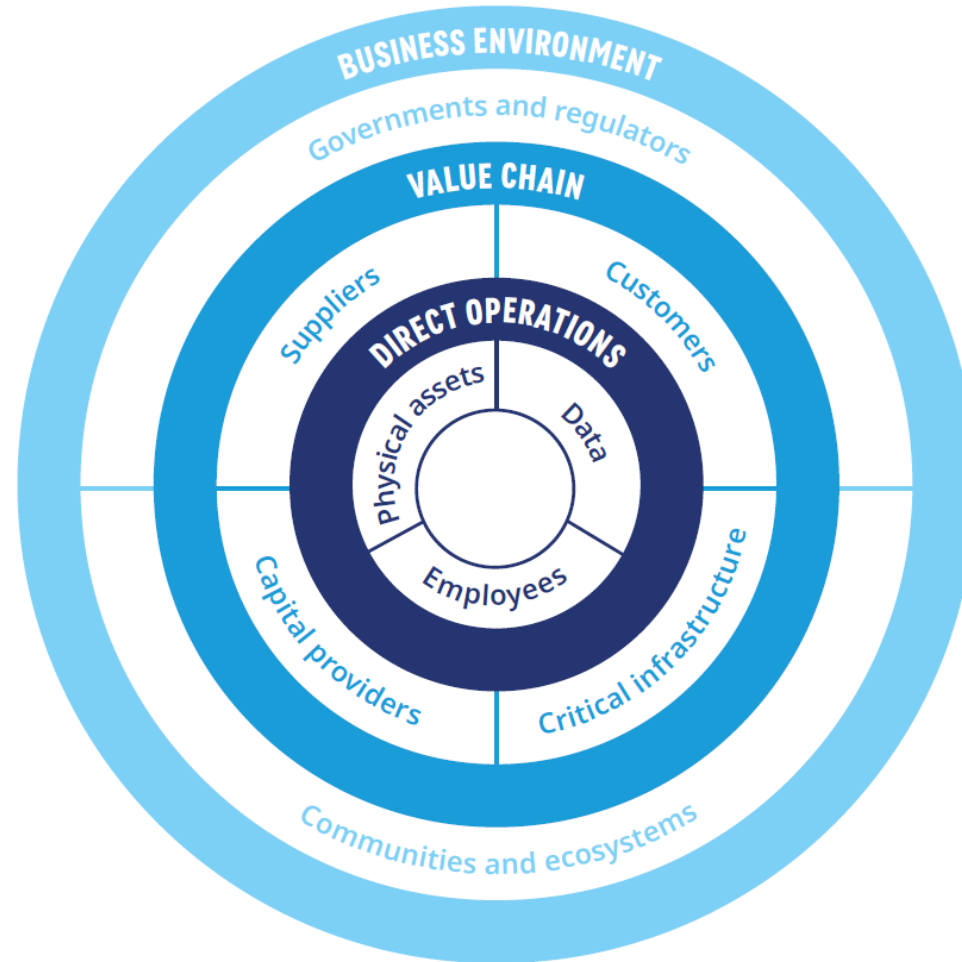
- Huge amounts of public and private capital needed to address the challenges – US\$ 100bn year goal not achieved yet, but expected to be met by 2023/24 mostly by governments and public development banks.
- Discussions about unlocking private capital, net zero finance agenda – more regulation in order to drive out greenwashing?
- Increased focus on the social dimension of climate finance (just transition, social protection)
- Investment in nature and nature based solutions is growing but still small.

Internationally just 12% of funds for disaster management are put into risk reduction and prevention (adaptation/resilience) prior to a disaster, while 88% go into funding responses during, and after an event, including repair or reconstruction.

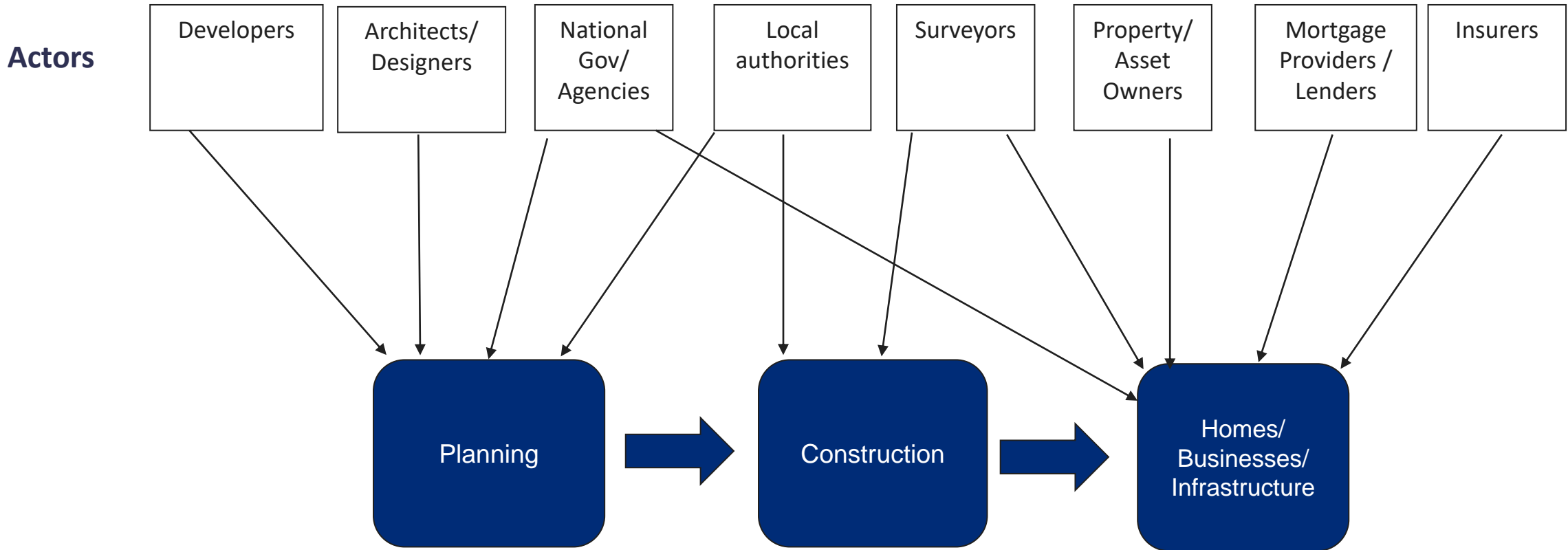
Tanner, T.M., Surminski, S., Wilkinson, E., Reid, R., Rentschler, J.E., and Rajput, S. (2015) The Triple Dividend of Resilience, World Bank/ODI

Take a 360-degree view of climate risk

Infrastructure owners and operators (and users!) need to rethink and expand their approach to climate risk management.



The key is to involve all those who make decisions that influence current and future risk levels ...



Based on: Surminski, S. (2019): *Flood Insurance and Flood Risk Reduction*, in **Oxford Research Encyclopaedia of Natural Hazard Science**



We are leaders in risk, strategy and people. One company, with four global businesses, united by a shared purpose to make a difference in the moments that matter.

Marsh GuyCarpenter Mercer OliverWyman