



Sustainability & ESG Africa Conference
COMMUNITY OF
PRACTICE

**CLIMATE ADAPTATION AND NATURE-BASED
SOLUTIONS**



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Structure

→ Introduction
and Welcome

→ Setting the scene presentation

→ Industry Perspectives

→ Closing





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Introduction and welcome





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Our COP

Opened community

For African Sustainability and ESG practitioners, experts, leaders and people with interests in sustainability and ESG in Africa

To discuss, debate and find solutions to some of the common challenges faced in embedding sustainability and ESG practices within organisations

To deliver real positive impact on the continent.

To facilitate the emergence of an African voice and African leadership in the global sustainability and ESG space



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Who is in the room?

In chat:

Name and Surname

Organisation

Country



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Where are you at?

Insight from the audience



MENTI.COM
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Setting the scene



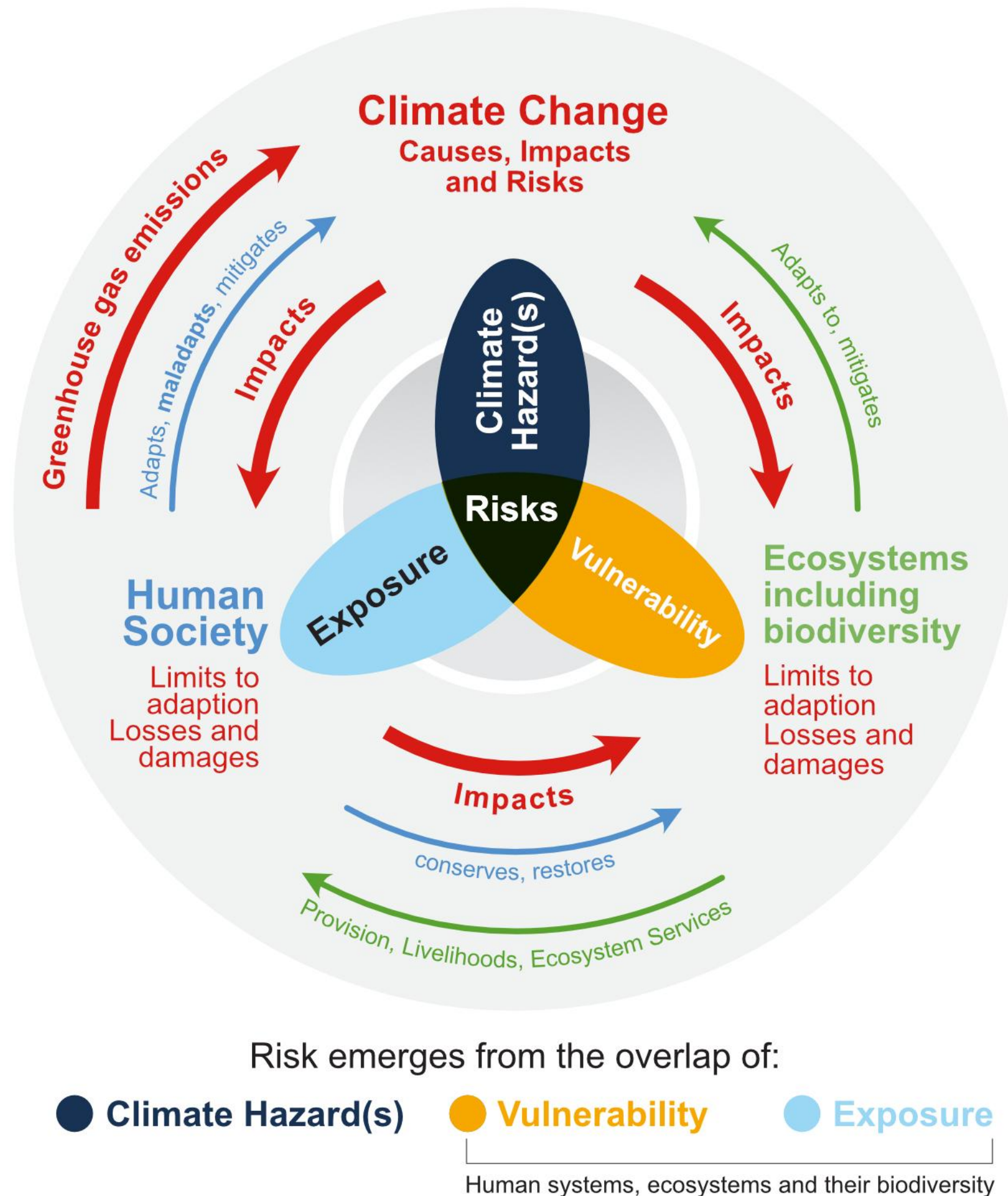
Climate adaptation

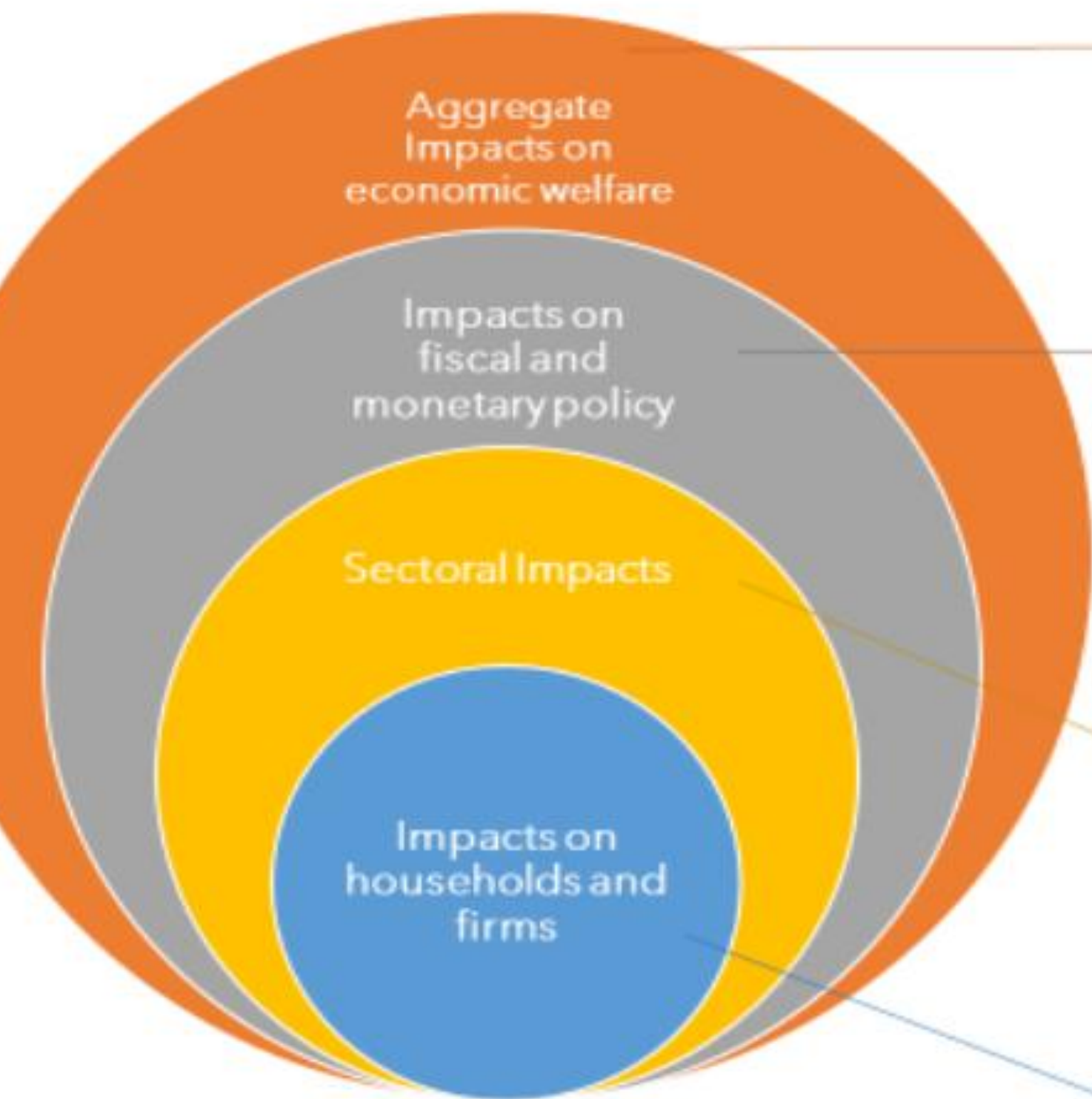
Vulnerability The degree to which a system is **susceptible to, or unable to cope with, adverse effects of climate change**, including climate variability and extremes. Vulnerability is a **function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity**.

Adaptation: Initiatives and measures to **reduce the vulnerability** of natural and human systems **against actual or expected climate change effects**.

Adaptive capacity: **Ability of an organization or a system to adjust** to climate change (including climate variability and extremes), to moderate potential damages, to take advantage of opportunities, or to cope with consequences.

Resilience: The **ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning**, the capacity for self-organization, and the capacity to adapt to stress and change.





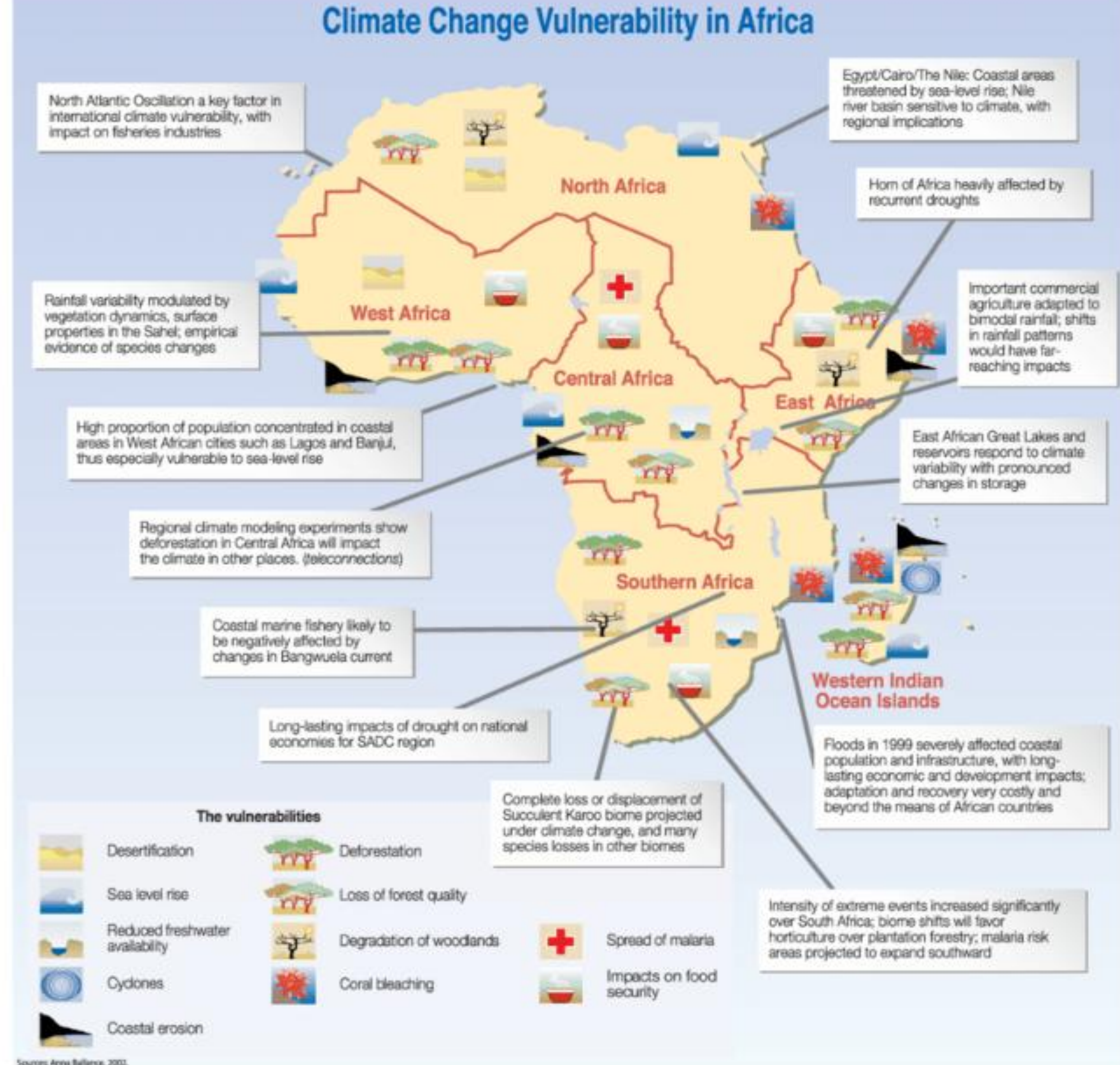
- Loss and damage costs due to climate change.
- Lowered gross domestic product (GDP)
- Reduced economic output and growth.
- Increased economic inequality between temperate regions in the northern Hemisphere and Africa.

- Lost fiscal strength and space: Lost revenue growth, negative impacts on productive debt, lower exports, etc.
- Increases in planned and unplanned expenditure to address climate-related disasters and chronic climate change effects.
- Monetary policy: Upward pressure on food and transport inflation due to extreme weather events and eroded foreign reserves which weighs on exchange rates.

- Lower agricultural production
- Increased food insecurity
- Increased water scarcity
- Lower tourism receipts
- Increased disease burden

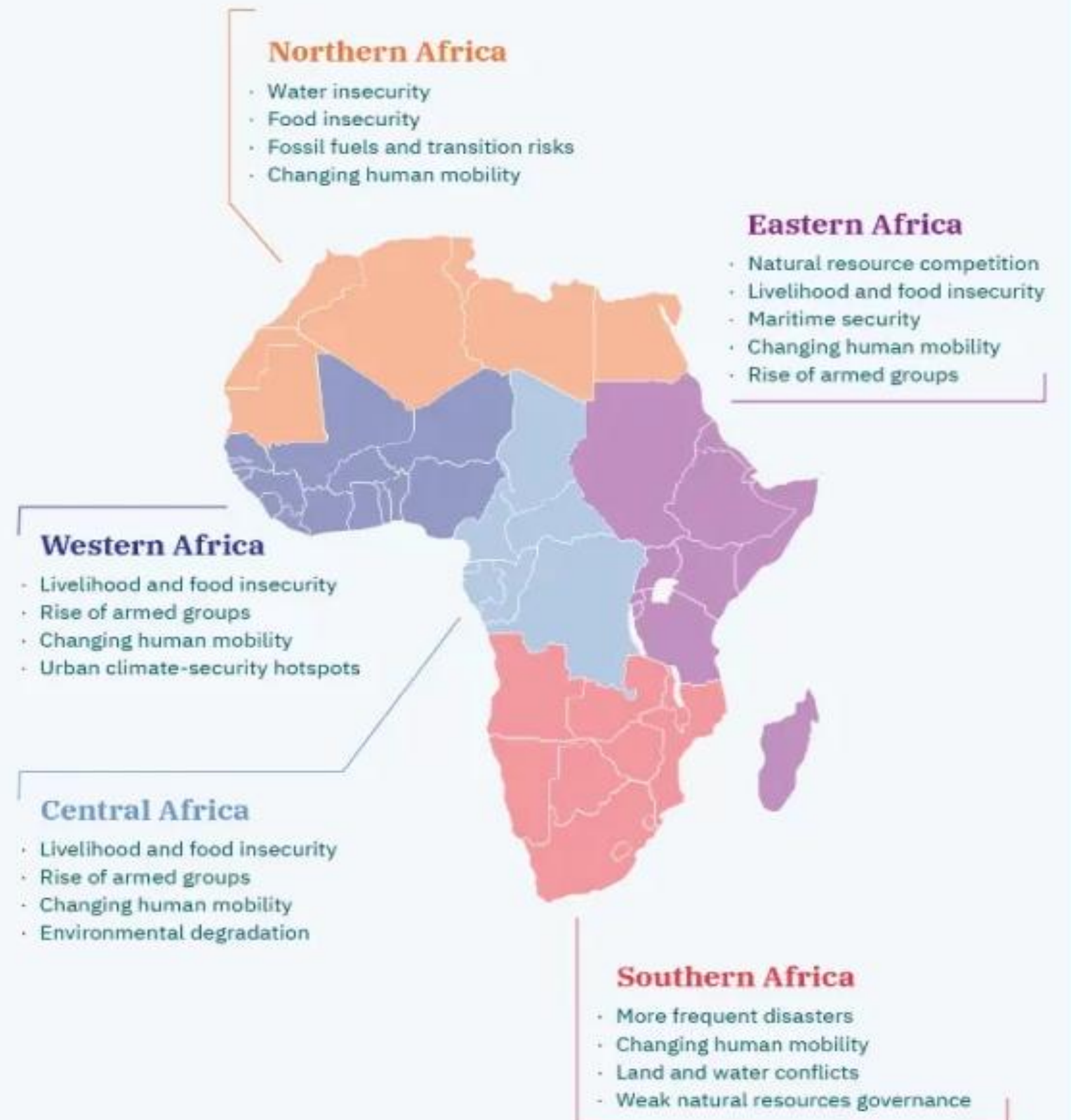
- Involuntary displacement, and damage to homes, property and sources of livelihood due to extreme weather events
- Climate-induced conflict
- Disruption in firm activity
- Increased household expenditure on basic food items
- Lower income earning from firm activity in key sectors

High Climate Vulnerability in Africa



Security risks linked to climate change impact

Key Climate Security Pathways



Most vulnerable sectors to CC

Agriculture

Construction

Tourism

Healthcare

Financial services

Energy

Transport

Security

Africa's Adaptation Gaps and Investments

Investment

**\$13
BILLION**

Amount of climate adaptation investment in Africa, against a need of **USD 53 billion**



20%

Support accorded to adaptation in Africa as a share of its need (**USD 53 billion**)



Gaps

36%

Share of global climate adaptation financing allocated to Africa in 2021-2022, down from **39%** in 2019-2020

4:1

Benefit-cost ratio of investing in climate adaptation measures

2in3

Countries at risk of climate shocks are in sub-Saharan Africa



\$1

Allocated to Africa for every \$5 invested globally for adaptation efforts



54%

Share of adaptation financing to African countries that is in loans, compared to **43%** as grants



Risks

2X

Times the continent is warming up faster than the global average



2-5%

Share of Gross Domestic Product by African countries that is lost to addressing climate extremes



3%

Private sector investment in adaptation efforts in Africa, as compared to

19%

Input by African governments in climate adaptation projects, higher than bilateral development finance institutions (**11%**)



118 million

Number of extremely poor people in Africa exposed to drought, floods and extreme heat by 2030



Sources: Climate Policy Initiative, Global Center on Adaptation, Climate Finance Vulnerability Index, Intergovernmental Panel on Climate Change, World Meteorological Organization

Company perspectives

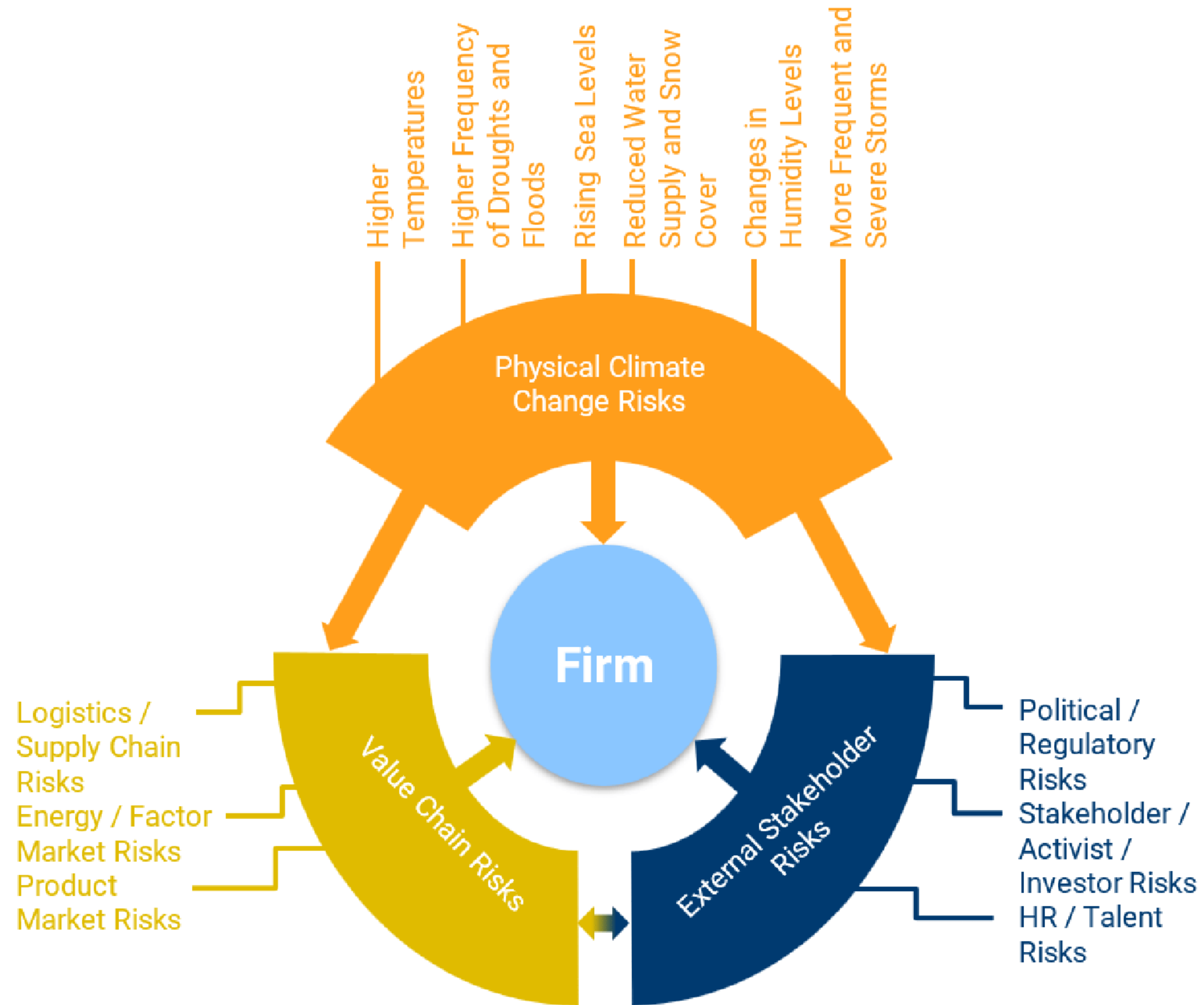
83 percent believe that climate change impacts pose a risk to their products or services

86 percent of companies surveyed said that responding to climate change risks, or investing in adaptation solutions, poses a business opportunity for their company

However, only around one-third of the companies reported that their climate change strategy has a “strong emphasis” on addressing climate change risks and/or responding to emerging opportunities; and

82 percent of corporate believe that public policy is of “high” or “very high” importance to their company’s ability to adapt to climate change.

Identification of climate risks





PRoP

Value Chain Climate Resilience

A GUIDE TO MANAGING CLIMATE IMPACTS
IN COMPANIES AND COMMUNITIES



<https://s3.amazonaws.com/oxfam-us/static/oa4/valuechainclimateresilience.pdf>

Support resources and business environment



Access to Finance

- Lenders and investors increasingly integrate climate risk into their appraisals
- Mounting weather risks being tackled with innovative risk transfer approaches
- Increased investor requests for climate risk disclosure and climate risk management
- New sources of adaptation finance



Policy Environment

- Increased regulatory pressure may induce costs and make it more difficult to comply
- Increased disclosure obligations
- Engaging with policy can help create favorable conditions for business for building climate resilience and identifying areas of synergy between public and private adaptation actions



Stakeholder Expectations

- Increased expectations and scrutiny from civil society organizations on corporate climate risk management
- Improved reputation
- New sources of competitive advantage

Primary activities beyond business fencelines



Community and Ecosystem Resilience

- Damage to ecosystems important to business
- Impacts on local communities altering corporate/social performance, if left unmanaged
- Better socioeconomic conditions for local communities, improving business stability
- Improved environmental performance by promoting ecosystem-based adaptation
- Improved local socioeconomic conditions by promoting community-based adaptation



Raw Materials Sourcing

- Availability of agricultural commodities and raw materials for production
- Commodity price volatility
- New sources of supply



Distribution

- Climate-triggered disruptions to distribution networks affecting delivery times and causing production interruptions or sales losses



Sales

- ○ Changes in consumer preferences, consuming patterns, and seasonality
- Demand for climate-resilient products and services
- Demand for new products and services

Primary activities within business fencelines



Assets and Infrastructure

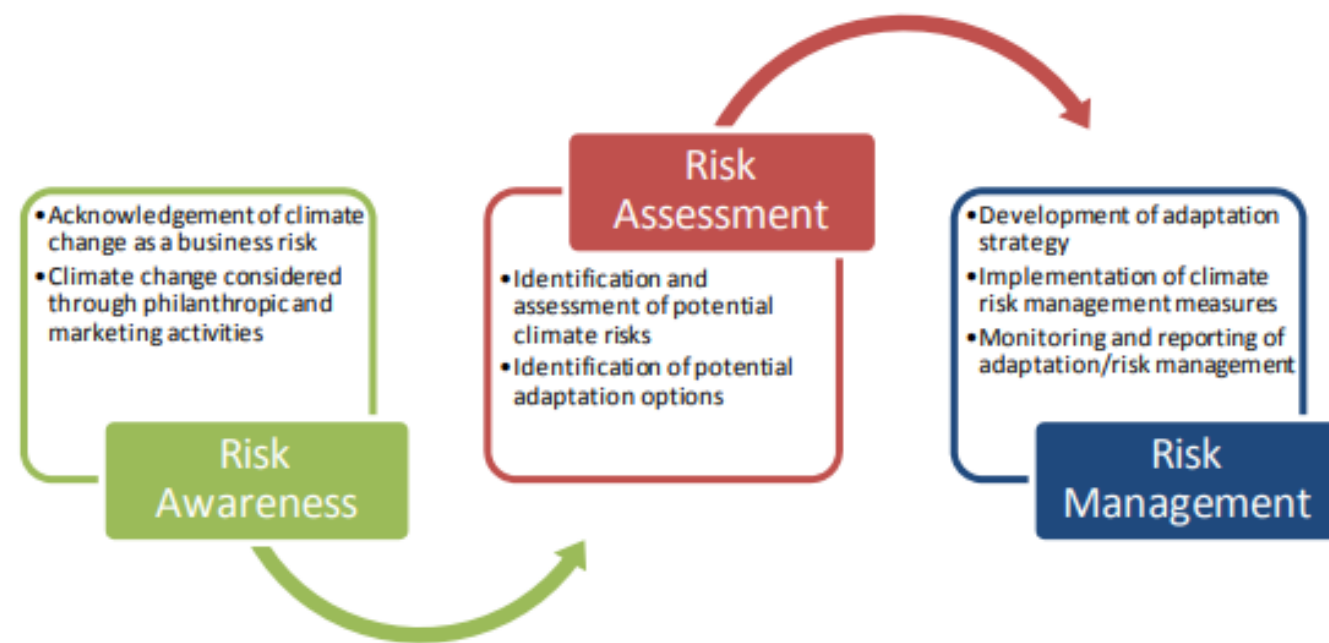
- Failure to consider impacts during design and planning could lead to asset and infrastructure damage, higher wear and tear, and reduced useful lives
- Integration of climate resilience in asset or infrastructure design to increase useful lives at lower costs than retrofits



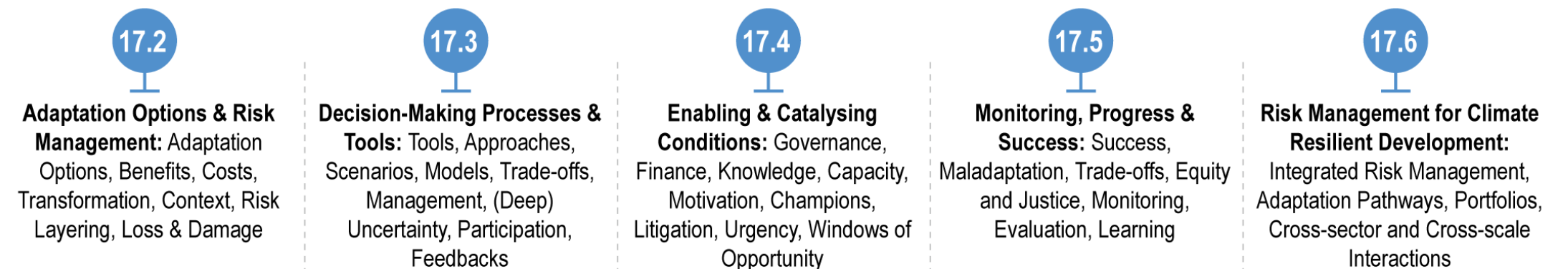
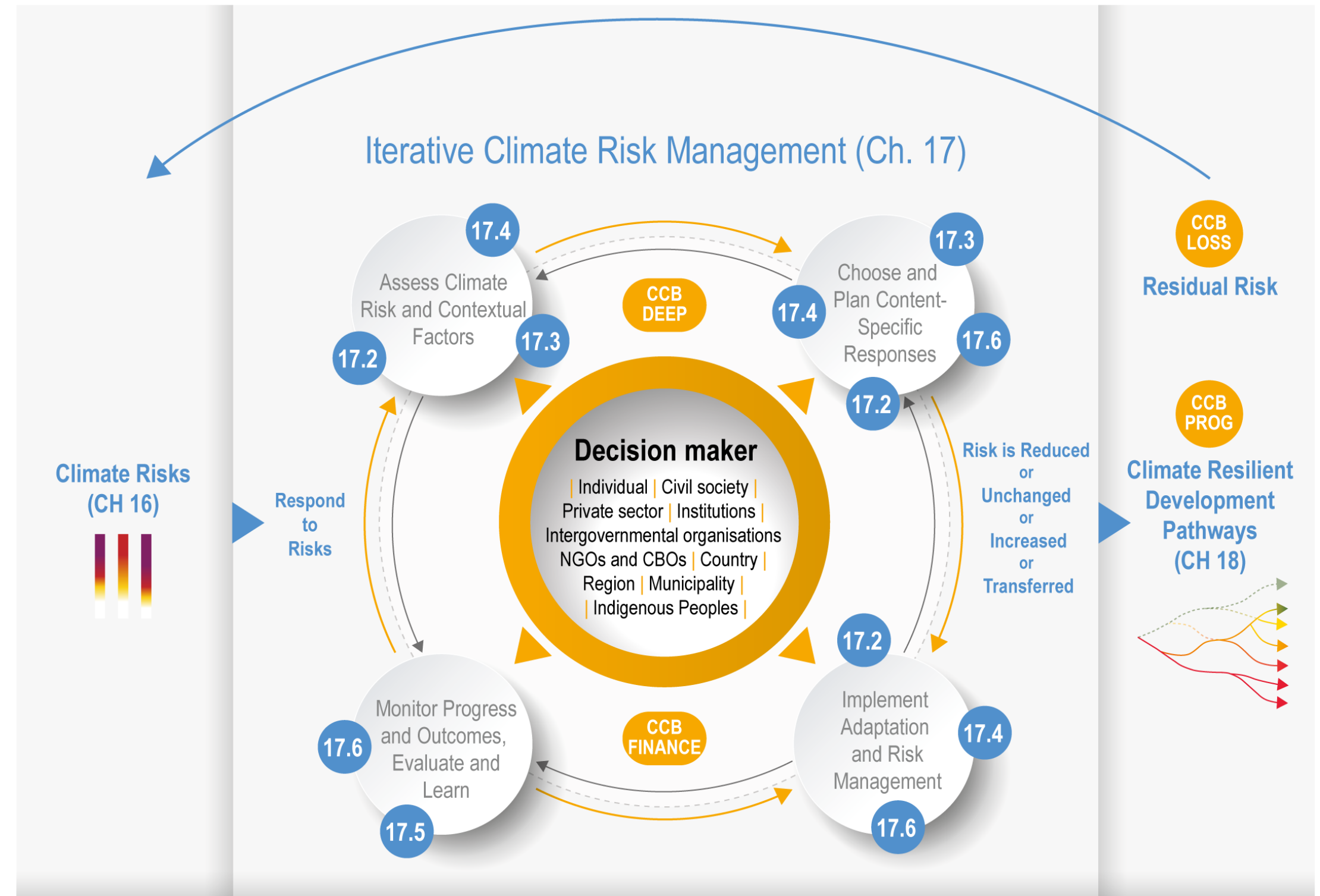
Production and Operations

- Damage to existing infrastructure and facilities
- Increased costs and/or constraints on industries relying heavily on water for production
- Increased health and safety hazards for workforce
- ○ Effect on operations performance, quality, and timeliness
- Improving the resilience of products and services could open new markets

Managing climate risks



Schematic representation of the climate risk management decision-making process



Opportunities: investing in adaptation action a sustainable and profitable manner

New market opportunities and expansions;

Development of climate friendly goods and services;

Potential cost savings;

Risk reduction measures, including physical operations;

Climate proofing the supply chain;

Enhanced corporate social responsibility.

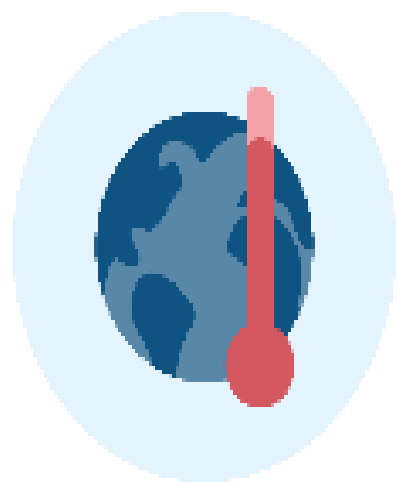
Defining NbS

IUCN defines nature-based solutions as: “actions to protect, sustainably manage and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”

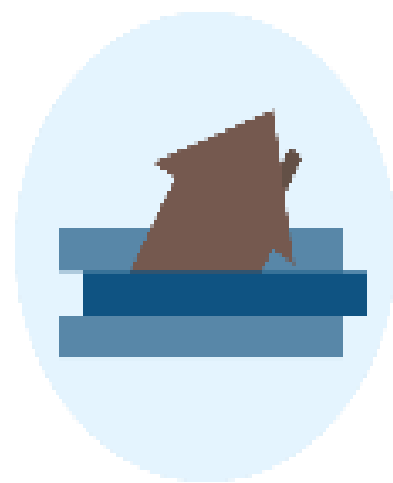
“NbS are often described as ‘no-regret’ options, providing benefits to people in a range of scenarios”



...address societal challenges...



Climate change
adaptation &
mitigation



Disaster risk
reduction



Economic & social
development



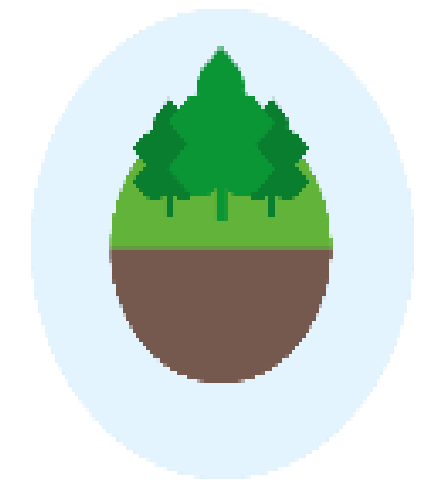
Water security



Food security



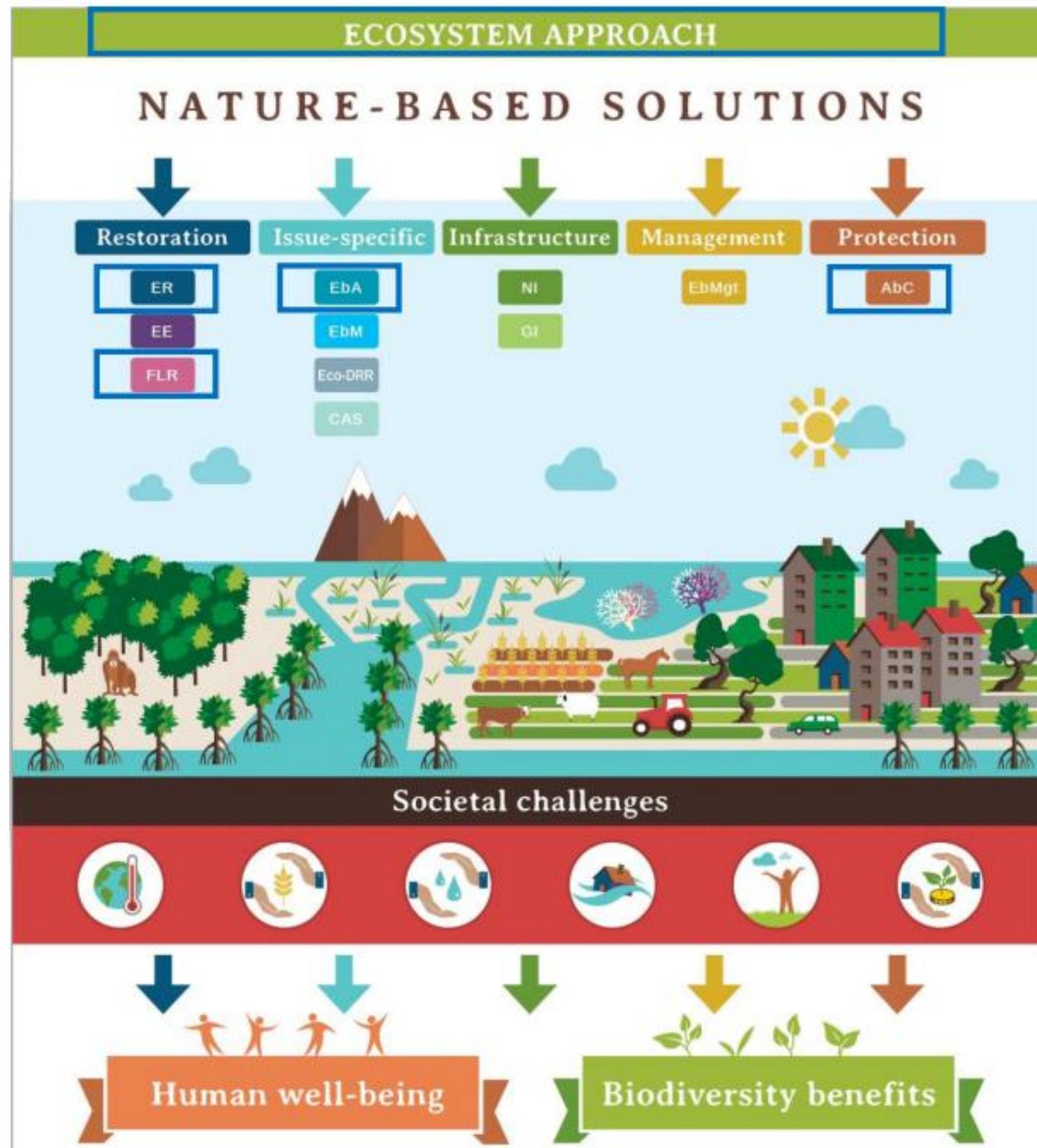
Human health



Ecosystem
degradation &
biodiversity loss

Nature-based Solutions (NbS) provide a framework for restoring ecosystems while delivering long-term benefits for people, nature, and economies—linking environmental action with sustainable development goals.

Nature-based Solutions and Ecosystems-based Approaches



Nature-based solutions and ecosystem-based approaches are closely linked strategies that use healthy ecosystems to address environmental and societal challenges.

← As shown in the figure, ecosystem approaches provide the overall framework, while nature-based solutions apply actions such as restoration, protection, sustainable management, and green infrastructure.

Together, they enhance biodiversity, strengthen climate resilience, and support human well-being by working with nature rather than against it.

ER	Ecological Restoration	EbA	Ecosystem-based Adaptation
EE	Ecological Engineering	EbM	Ecosystem-based Mitigation
FLR	Forest Landscape Restoration	Eco-DRR	Ecosystem-based Disaster Risk Reduction
GI	Green Infrastructure	CAS	Climate Adaptation Services
NI	Natural Infrastructure	AbC	Area-based Conservation
EbMgt	Ecosystem-based Management		

Examples of nature-based solutions that can help build climate resilience



Source: Illustration by John Wamagata Nduru/WRI, adapted from World Bank 2021.

How can we use nature to help communities build resilience to extreme weather events and climate change?

Farmland



Hazard: Drought leads to crop failure and livestock loss

Solution: Implement agroforestry to reduce evaporation and make better use of soil moisture



Hazard: Flooding leads to loss of assets, crop yield reduction and transport disruption

Solution: Protect and restore forests to slow water runoff

Coasts



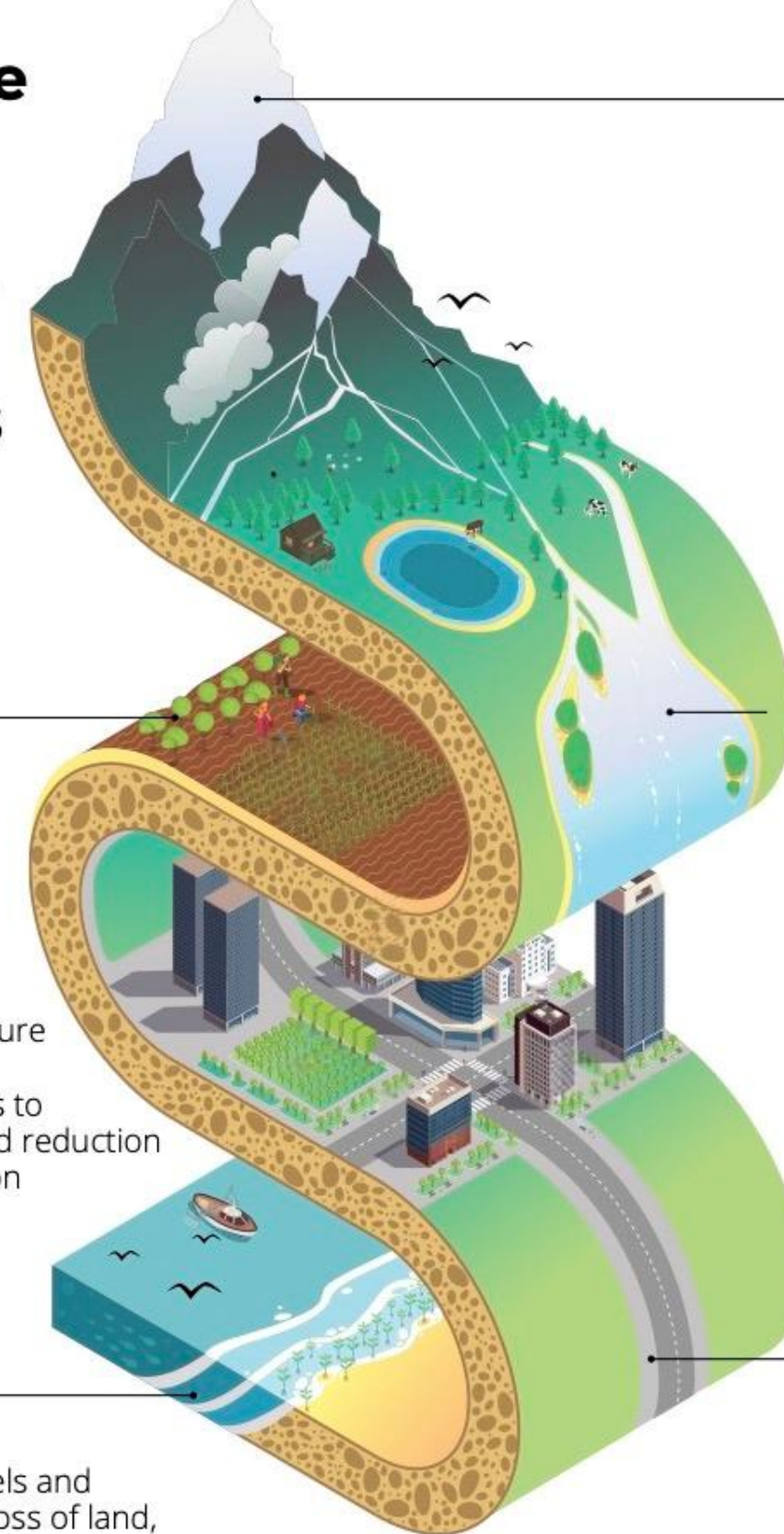
Hazard: Rising sea levels and coastal erosion cause loss of land, livelihoods and assets

Solution: Restore coastal wetlands



Hazard: Storm surges lead to loss of life and assets

Solution: Protect and restore mangroves, marshes and reefs to buffer coasts and absorb floodwaters



Mountains, forests and watersheds

Hazard: Intense rainfall causes landslides, soil loss and siltation
Solution: Protect and restore forests to stabilise soils and slow water runoff



Hazard: Wildfires lead to loss of life and assets
Solution: Protect and manage forests to prevent wildfires



Rivers and Wetlands

Hazard: Flooding leads to loss of assets, contaminated waters and crop yield reduction
Solution: Restore wetlands to absorb and filter flood waters



Hazard: Drought reduces the flow of rivers
Solution: Protect and restore forests and watersheds to regulate the flow of rivers



Cities

Hazard: Intense rainfall causes urban flooding
Solution: Restore passageways for water, expand green spaces and introduce porous surfaces to reduce flood risk

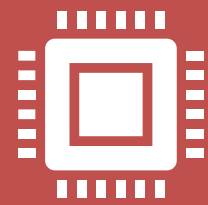


Hazard: Urban heat islands can cause heat stress
Solution: Expand green spaces in and around cities



Source: Adapted from Global Commission on Adaptation, Adapt Now report, 2019

NbS: business value proposition



NbS provide buffer capacity, and co-benefits, though with greater uncertainty. RESILIENCE



The World Economic Forum has cited evidence that nature-based infrastructure can be around 50% cheaper than traditional grey infrastructure while providing additional value such as resilience, land value, jobs and decarbonisation benefits.



Hybrid solutions (e.g. levees plus restored floodplains, seawalls with mangroves) may provide optimal resilience and cost-effectiveness depending on site and hazard context.

Interesting business arguments

- **Supply chain resilience**

For businesses dependent on agriculture, water, land, fisheries, forestry, tourism, real estate or infrastructure, NbS can **stabilise the ecological systems** on which the business quietly depends. This is especially important where climate risk is not inside the factory gate but in landscapes, communities, suppliers and shared infrastructure.

- **Regulatory and disclosure readiness**

Nature and climate disclosure expectations are rising. NbS can help businesses move from reporting impacts to demonstrating credible adaptation, risk reduction, and contributions to nature-positive outcomes.

- **Social licence and community resilience**

Businesses cannot adapt alone if the surrounding communities, catchments and ecosystems are failing. NbS can strengthen relationships with communities, local government and landholders because benefits often include water security, livelihoods, cooler urban areas, flood protection and biodiversity.

- **Access to blended finance and new investment models**

UNEP's State of Finance for Nature tracks growing attention to public and private finance for NbS and investment needs linked to biodiversity, land degradation and climate goals.



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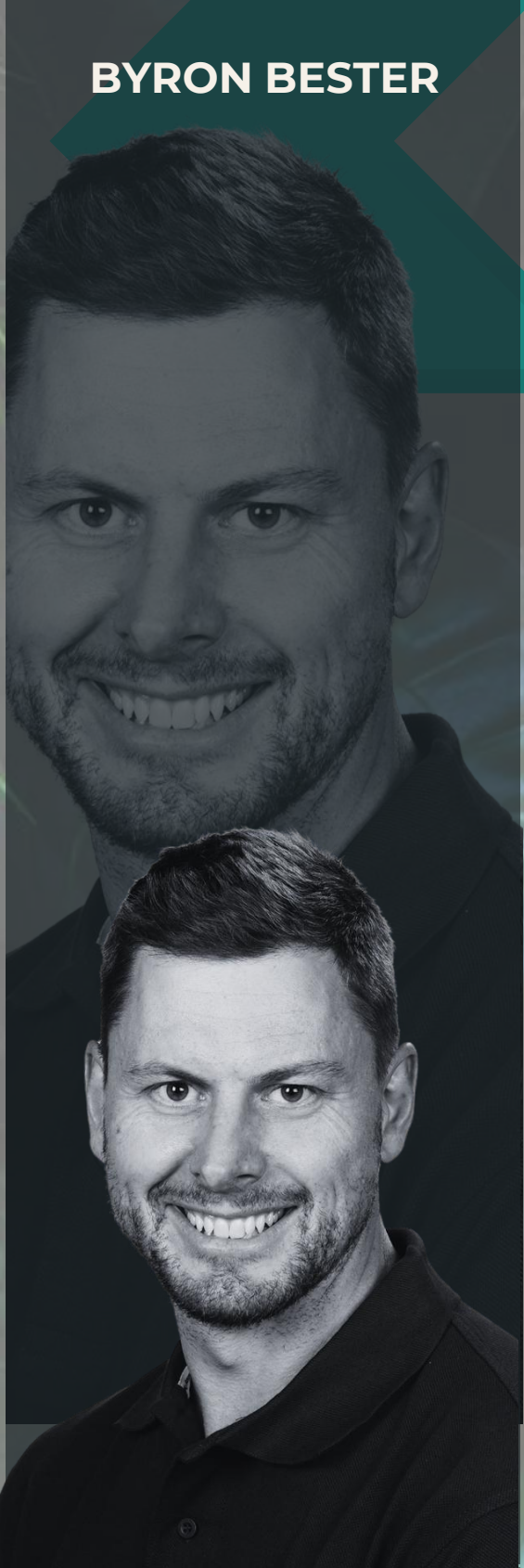
Industry Perspectives



Senior Programme
Manager
FAUNA & FLORA



Director in the Promethium
group of companies
PROMETHIUM CARBON



Divisional Manager:
Ecology Services
**DIGBY WELLS
ENVIRONMENTAL**



Principal Climate Change
Advisor
PROMETHIUM CARBON



Closing

NEXT COP 26th May
Climate Adaptation and Nature-Based Solutions

One word to describe the value you got out of
this session? ONE WORD

And would you like a longer masterclass on
this? YES or NO

**THE
SUSTAINABILITY
LEADERSHIP &
ADVISORY HUB**

 **STRATEGIC
MINDSETS**
SKULTCHA
SHIFTING CULTURE
for a better world



SCAN ME



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