



13/11/2024

UNEP Finance Initiative

PRB Climate Adaptation Capacity building programme

Africa and the Middle East

Workshop 1#:
Introduction to Adaptation and Understanding your Context



Overview of the programme

Workshop 1 (today)

13 November

Adaptation for FIs

Understanding your context
and setting your baseline

Voluntary exercise

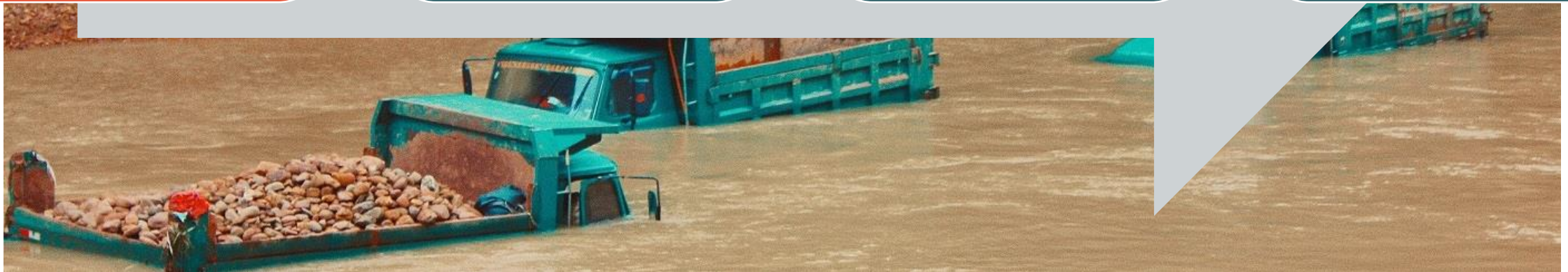
Workshop 2

27 November

Practice targets

Implementation and action
plans

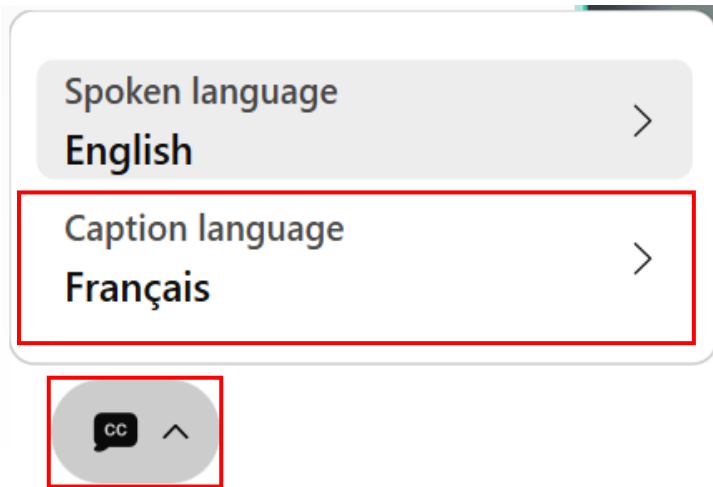
Follow-up workshop
within 3 months



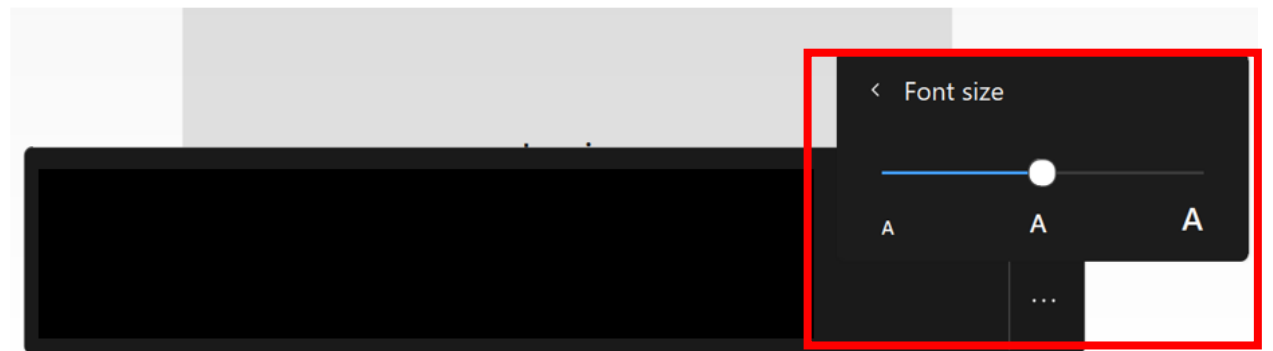
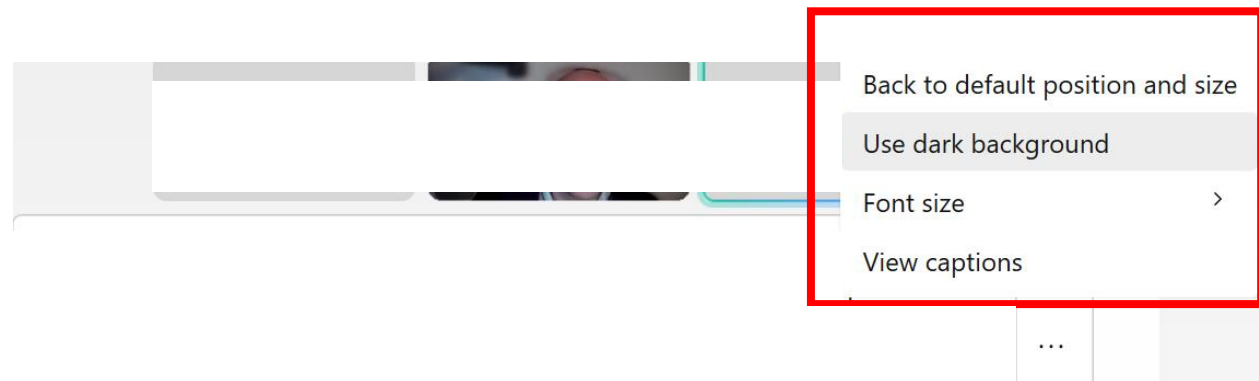
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- Slides and the recording will be shared after the workshop
- Please mute yourself during the workshop to avoid background noise
- Question and comments highly welcome during the session! You can
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 - Post questions in Webex chat (anytime)
 - Post questions on Slido.com (voting code: **22446688**) (anytime) – Slido is anonymous, so you don't even need to mention your name

WebEx Translation



- Only accessible through the browser
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Objective of the capacity building programme

Support PRB Banks to implement the PRB Adaptation Guidance

Why does it matter?

- Adaptation is a nascent and overlooked topic not fully integrated into banks' climate strategies.
- This programme provides capacity building support for banks to implement the PRB Adaptation Guidance.
- Even if adaptation is not one of your PRB key impact areas, you need to address the topic.
- **Please note that this programme is at a foundational level.**

Agenda of today's workshop

Introductions

Adaptation for financial institutions

- Understanding adaptation needs and urgency
- The Adaptation context for banks
- Using the PRB guidance to work strategically on adaptation

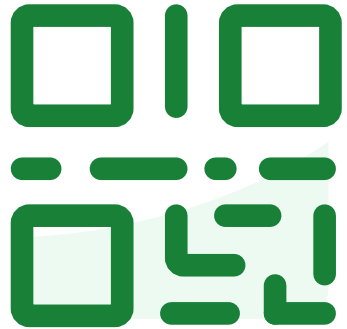
Working strategically on adaptation

- Overview of the PRB guidance
- Step 1: Understanding your context
- Step 2: Setting the baseline

— Introduction

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Please tell us about yourself - name (optional!), Bank name, Country name, Department

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Has your bank already identified the 2 key impact areas? (You can select more than one option.)

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How is climate change impacting your clients?

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Where do you see the greatest challenges and barriers to Adaptation action today?

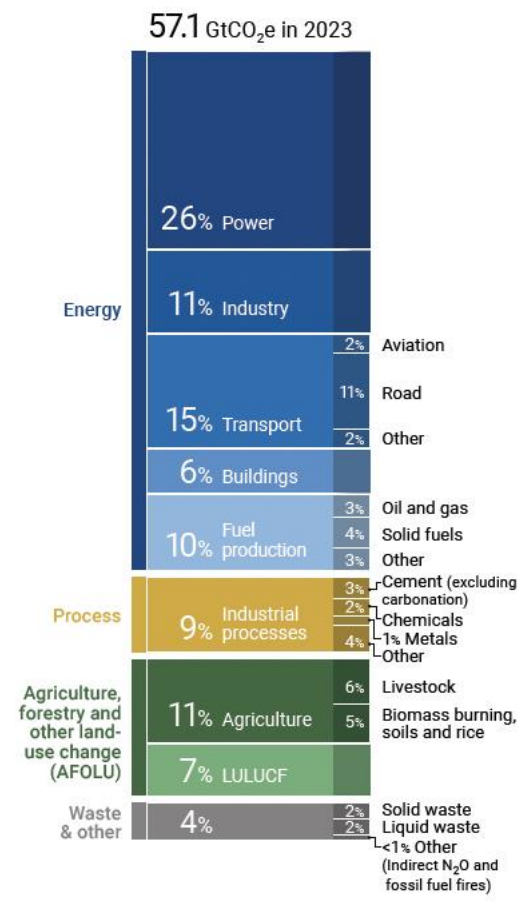
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— The climate context and adaptation

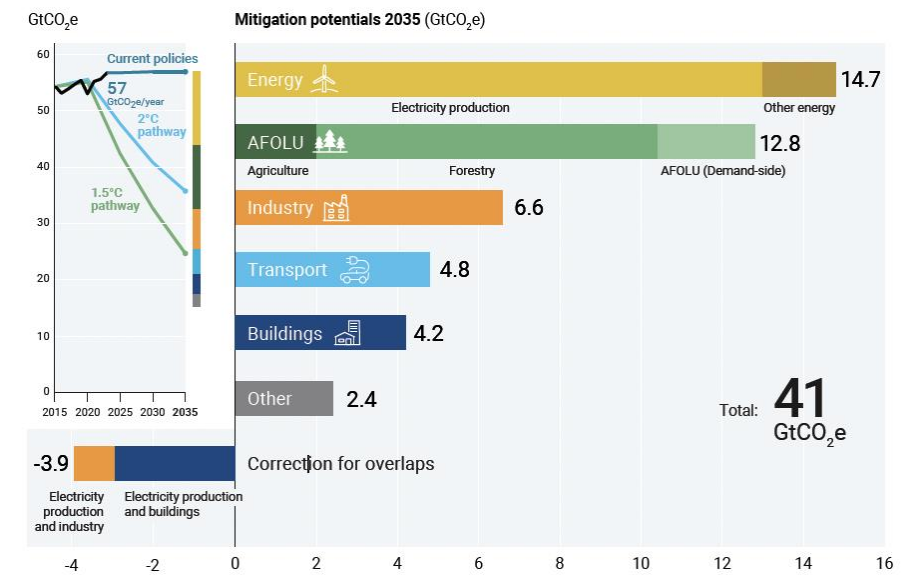
Understanding adaptation needs and urgency

The climate and mitigation context today

- Global greenhouse gas emissions set a **new record of 57.1 GtCO₂e in 2023**, a 1.3 per cent increase from 2022 levels
- Global average temperature rise is still below 1.5°C, yet climate change is already hitting communities across the world hard, particularly the most poor and vulnerable. And it will get much worse: the latest estimates put the world on course for a temperature rise of **2.6–3.1°C** this century unless there is urgent and ambitious mitigation

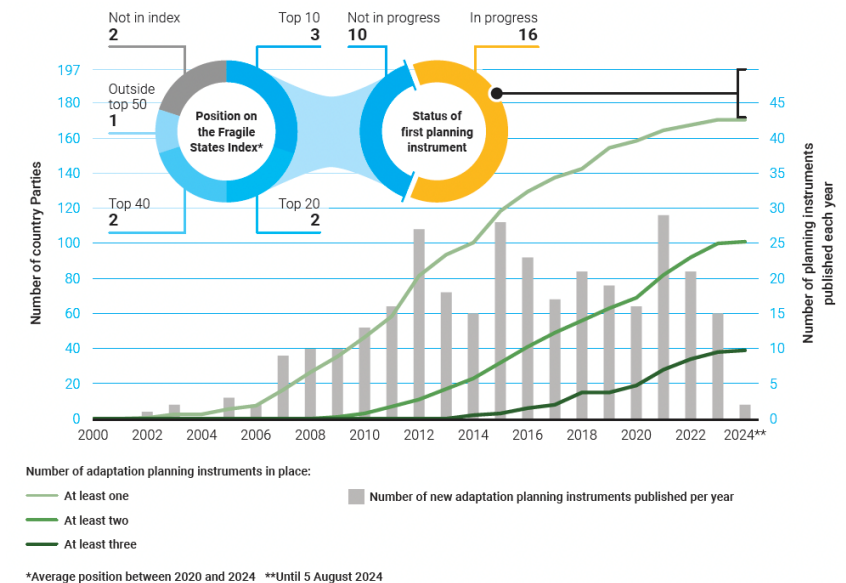


- Emission reduction potentials for 2030 and 2035 are substantial, but time is short and realizing the potentials requires overcoming persisting challenges and massively **boosting policies, support and finance**



And the associated adaptation context today

- Societies around the world are expected to face increasing climate risks and possibly **irreversible climate, ecological and societal impacts**. Catastrophic climate impacts are becoming ever more frequent and extreme, and the associated losses and damages are making it unequivocally clear how much is at stake.
- Climate adaptation can no longer be considered a future option or a distant concern, but must be seen as **one of the greatest priorities for nations and communities worldwide today**, alongside efforts to abate greenhouse gas emissions
- Progress in adaptation implementation is **slow and marred with problems**. Countries need to ramp up their ambitions to prepare for increasing climate risks.
- Approximately **two thirds** of estimated costs/finance needs for Adaptation are in areas that are typically financed by the **public sector** through international or domestic sources, because they have public good characteristics or are in social or non-market sectors.
- The remaining **one third of financing** needs exist in areas that have potential for **private financing, such commercial agriculture, water and infrastructure** (non-exhaustive examples).

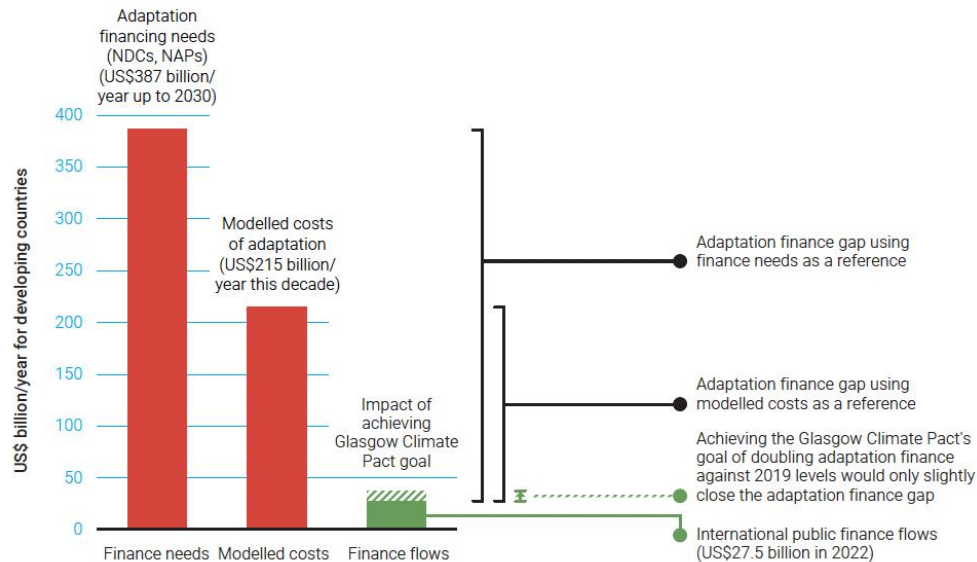


Publication of national policy instruments for adaptation over time

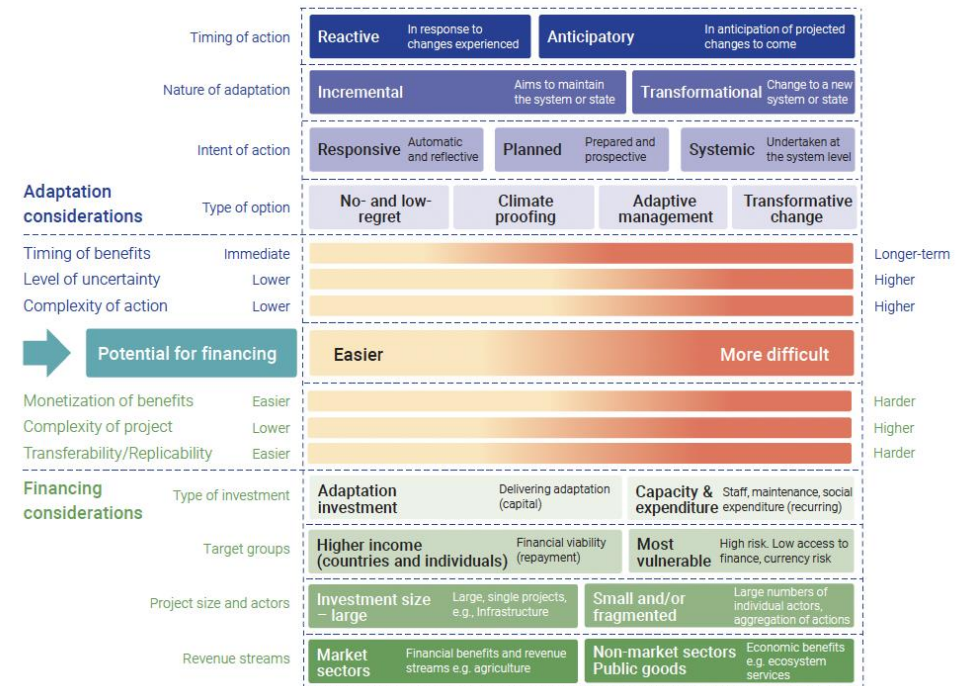
Adaptation finance needs today

The 2023 UNEP Adaptation Gap Report highlighted **US\$215–387 billion/year in adaptation finance needs** for developing countries, with a significant shortfall in financing flows observed to date.

The **adaptation finance gap remains extremely large**, and bridging this gap is a priority for the NCQG for climate finance



Meeting the climate challenge will require a **scaling up** of adaptation finance, but also a more **strategic approach to investment** - shifting from reactive-based adaptation solutions towards more challenging, anticipatory-based solutions



Source: [UNEP Emissions Gap Report 2024](#)

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What could be your bank's main motivation to work on adaptation?

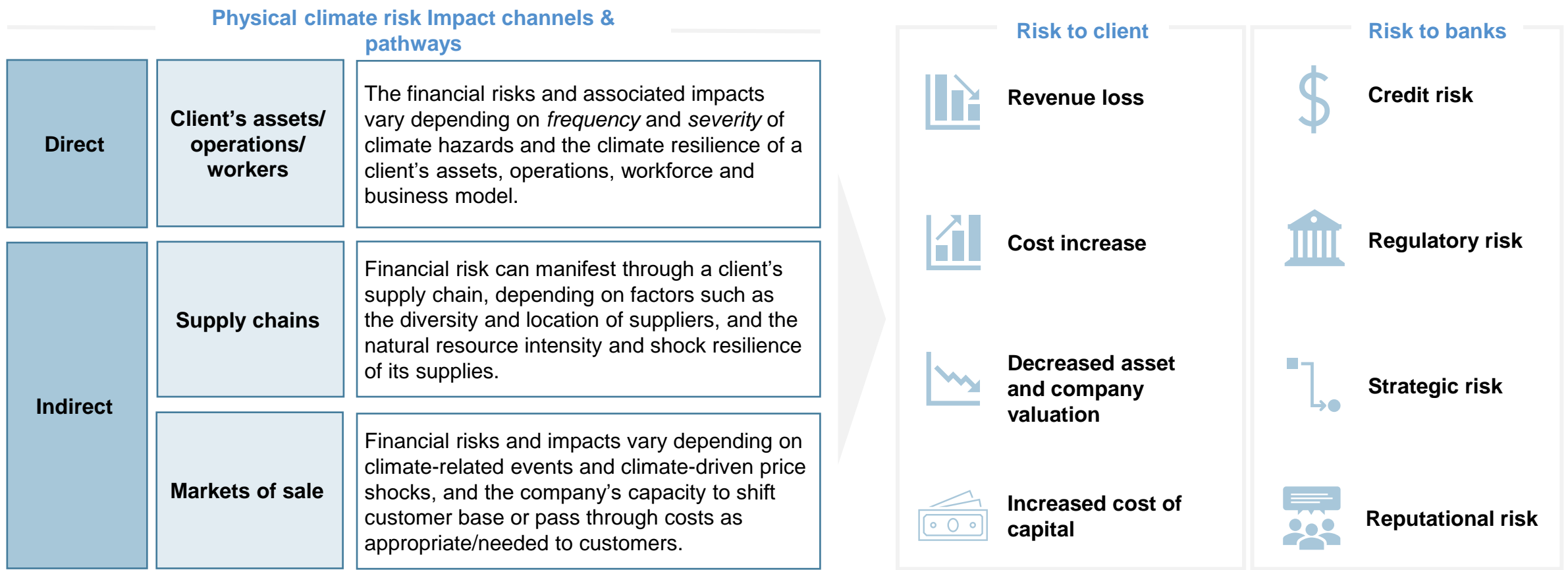
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— Adaptation and financial institutions

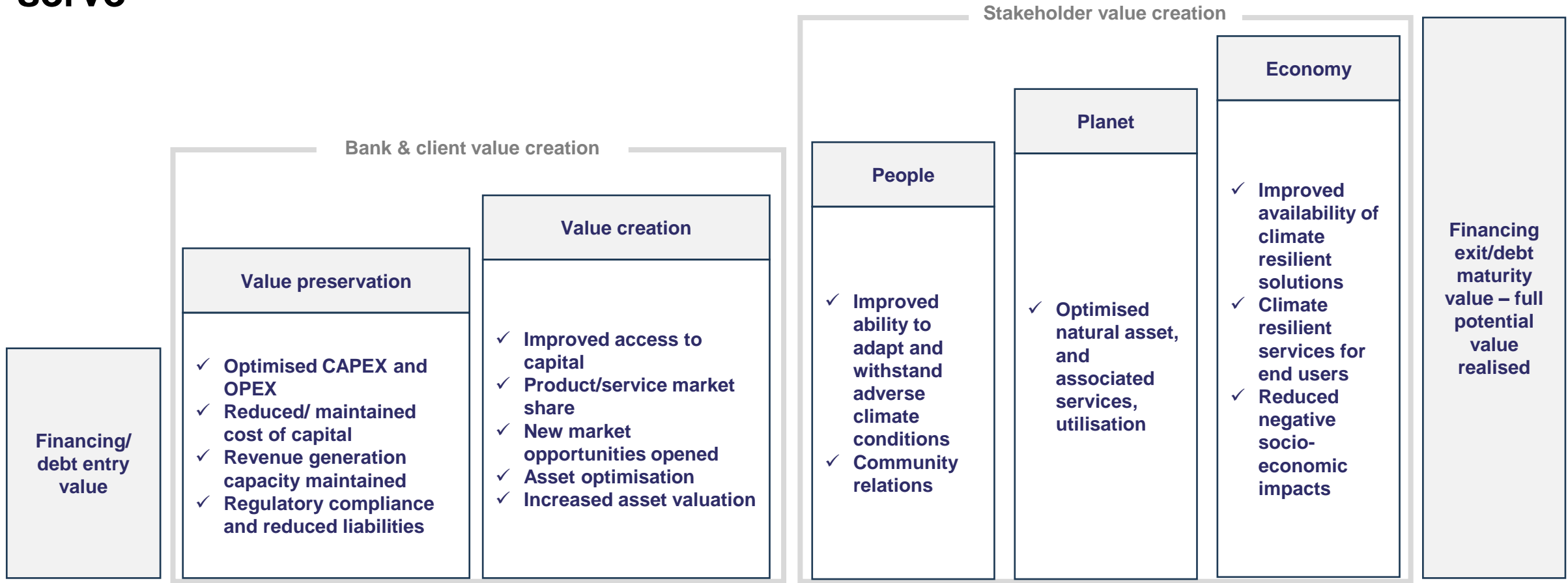
The Adaptation context for banks

Physical Climate Risk (PCR) and Adaptation

To effectively engage on Adaptation finance banks must successfully **identify, assess and manage physical climate risk**. Banks must understand their client risks and consequently develop an Adaptation strategy that addresses their client needs.



Effective PCR identification, assessment and management brings value to banks, your clients and the communities you serve



Physical climate risk management value add

Illustrative sector PCR context – Commercial Real Estate (CRE)

CRE is subject to a wide variety of climate hazards globally. A contextual approach from banks is needed to effectively assess and manage physical climate risk, engaging with clients to determine their exposure and vulnerability to identified hazards, and subsequently determining appropriate mitigation strategies in collaboration with clients

1. Sea level rise and coastal flooding

Storm surges and tidal flooding, coupled with sea level rise are a risk to coastal CRE. Estimates show without adaptation, the population exposed to coastal flooding will increase by 52% by the end of the century ([Kirezci et al, 2020](#)). These risks are existential for SIDS: future damages increase up to 14 x – could lead to forced migration ([Vousdoukas et al, 2023](#))

2. Inland flooding

Inland flooding (fluvial and pluvial) represents the largest proportion of flood exposure globally >90%. Urbanisation ([Rentschler et al, 2023](#)) both increases exposure and reduces soil permeability, increasing risk. Over 2 million km of urban roads are exposed to inland flooding, which can pose a significant indirect risk to CRE ([World Bank, 2022](#))

3. Extreme storms and wind

Increased intensity and frequency of tropical storms, such as hurricanes, cyclones, and typhoons. These storms can cause direct damages to assets due to extreme wind speeds. They also pose a significant indirect risk to power networks ([Hall et al, 2024](#)) that can increase those impacted by several orders of magnitude ([Mühlhofer et al, 2024](#)).

4. Wildfires

Between 2005-2020, wildfires destroyed ~90,000 structures in the United States ([Barrett, 2020](#)). Globally, extreme wildfire occurrence has increased 2.2-fold over the last 20 years due to warming ([Cunningham et al, 2024](#)). There are also indirect impacts, as evidenced in the US east coast in 2023, where wildfire smoke caused economic disruption.

5. Subsidence

Subsidence—which occurs when the ground beneath a property sinks, pulling the foundations of a property down and causing the walls and floors to shift—has the potential to destabilise the structure of a property. Subsidence is made worse by both climate change and human activity. Coastal cities face a double threat of subsidence and sea level rise ([Nicholls et al, 2021](#))

6. Heat and water stress

About 60% of global real estate investment trusts are located in areas such as Malaysia, the Philippines, Japan, Hong Kong, and Australia, which are expected to experience high water stress by 2030 ([Blackrock, 2020](#)). Extreme heat will increase global cooling demand, particularly in Africa and countries traditionally unprepared for heat ([Miranda et al, 2023](#))

1. The destruction or covering of the ground by an impermeable material, leading to soil degradation ([European Environmental Agency, n.d.](#))

The CRE PCR business case for banks

Assets at Risk

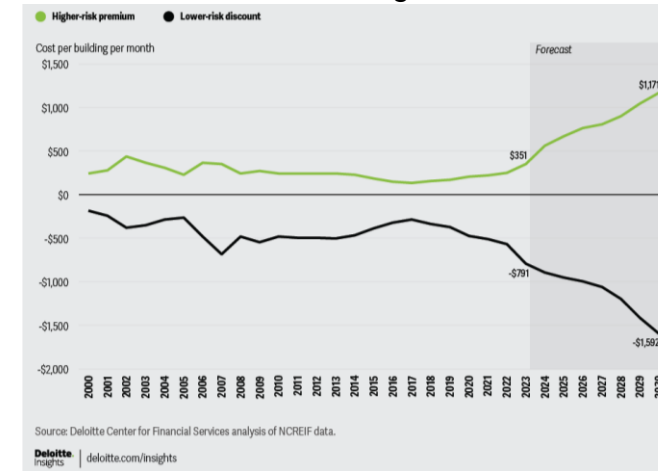
- A total of 739,699 retail, office, and multi-unit residential properties in the United States are estimated to be at risk of flood damage.
- Annual costs to repair such damage are predicted to rise 25% over the coming decades, from US\$13.5 billion in 2022 to US\$16.9 billion by 2052.
- In 2022, flood damage to commercial buildings caused an estimated 3.1 million days of lost business operations due to repairs. This is projected to rise by 29% in the next 30 years to 4 million days. ([First Street Foundation, 2021](#)).

Value at Risk

- Past events show that hurricanes have a significant negative impact on the value of commercial real estate with effects on property values and investor returns lasting up to five years, peaking three years after a major hurricane due to higher risk premiums and lower tenant demand ([Fisher & Rutledge, 2021](#)).
- Future cash flows are impaired by physical damage to the properties, loss operative capacity (e.g. utilities), and loss of demand (e.g. due to behaviour change or loss of access) ([Yavas et al., 2022](#))
- In the US, both Hurricane Harvey and Hurricane Sandy led to increased delinquency rates for commercial real estate mortgages ([Holtermans et al, 2024](#))

Insurance Cost and Dropout

Rising CRE Insurance Premiums



- Evidence of insurance dropout: Butlins, a UK holiday resort owner is currently in a £60m dispute with insurance companies after their largest resort in Minehead was flooded resulting in major impacts on their ability to operate.

Indirect Impacts

- Analysis of flood risks in Bristol, UK show that although corporate headquarters are not directly impacted by flooding, the roads to these headquarters face significant risks, which impact the ability of employees to get to work ([McKinsey, 2020](#)).

CRE-focused Adaptation solutions

Products and services



- Sustainable water use technologies (e.g. rainwater harvesting, water recycling, water retention gardens)
- Low-cost modular housing or prefabricated construction
- High-albedo materials, green roofs and cool roofs for thermal regulation
- Proofing buildings for acute hazards (e.g. floods, wildfires)
- Wearable cooling devices and shade structures for labourers

Finance and insurance



- Insurance discounts for resilience enhancement
- Business interruption insurance for weather-related events
- Property-assessed resilience loans
- Green / resilience bonds

Intelligence



- Enhanced information to track chronic risks (e.g. temperature rise, sea level rise, air quality, etc.)
- Enhanced information to assess vulnerability (e.g. satellite imagery to identify damaged buildings)
- Enhanced information to assess exposure (e.g. AI-powered flood risk assessments, climate risk prediction tools, etc.)

Adaptation taxonomies (e.g. CBI, Tailwind)

Enabling interventions



- Updated building codes to include resilience requirements
- Improved planning processes to reduce climate risk exposure
- Training and capacity building for unions and employers on resilient building solutions
- Improved regulations for workers' health and safety

Illustrative sector PCR context – Agriculture

The agricultural sector is one of the most exposed sectors to physical climate (e.g. floods, droughts) and nature risks (e.g. pest outbreaks, loss of pollination). Many of its economic activities directly depend on ecosystem services and are therefore exposed through changes in the provision or regulation of these services (e.g. water). Given their interlinked nature, banks need to take integrated approaches in this sector to build resilience across multiple local risks.

1. Drought

Drought reduces agricultural productivity and yield. The agriculture sector absorbs 82% of the total economic impact of drought ([FAO, 2021](#)). Models show that in a pessimistic scenario, maize, soybean and rice productivity could decrease globally by 24% by the end of the century, crops such as wheat see shifting productive regions ([Jägermeyr et al., 2021](#))

2. Flooding

Extreme storms and flooding can reduce the production and quality of feed grains, pastures, and forage crops as well as exposing crops to heavy metals, chemicals, and other contaminants ([FDA, 2022](#)). Between 1982-2016, flooding accounted for agricultural production losses of \$5.5 billion in the US ([Kim et al., 2023](#))

3. Extreme storms and wind

Agricultural land can become infertile due to vegetation loss and coastal erosion from storm surges, extreme winds, and saltwater intrusion ([Ortiz et al., 2023](#)). In the US, major hurricanes caused yield declines up to 6% on average ([Bundy et al., 2023](#)). Storms can also have significant impacts on farm equipment and transport.

4. Wildfires

Wildfires can damage livestock, crops, and agricultural property and equipment. Agricultural land management also significantly alters fire regimes ([Kabeshita et al., 2023](#)). Wildfires do not need to directly impact agricultural land to have an impact. In 2023, US harvests were impacted by smoke from wildfires in Canada ([The Guardian, 2023](#))

5. Extreme heat

Extreme heat can disrupt crop growth during key parts of the growing cycle and lead to livestock deaths. Increased severity and frequency of heatwaves impacts farm workers and reduce productivity of labour-intensive crops ([Diaz et al., 2023](#)). Temperature can also impact food storage and transportation ([Godde et al., 2021](#))

6. Nature

Climate change is increasing the range of invasive species and can reduce crop and animal health, impacting agricultural systems which costs the global economy more than US\$70 billion ([IUCN, 2021](#)). Other nature-climate risks that pose a significant risk to agriculture include soil loss, water stress and pollination services.

The Agriculture PCR business case for banks

Impacts on Agricultural Productivity

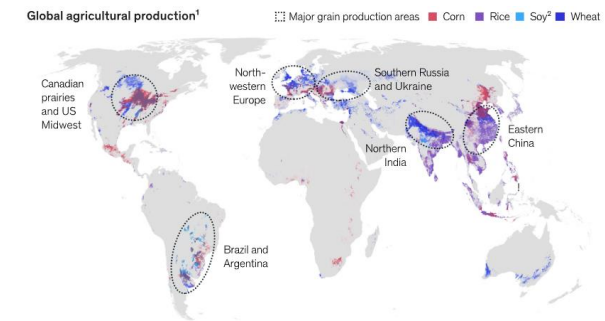
- A 2021 heatwave event in British Columbia, Canada led to a decline in the yield of key crops (e.g. wheat, barley and canola) of up to 30% and deaths of over 650,000 farm animals in one week ([White et al., 2021](#))
- To date, models typically only consider losses incurred from declines in crop yields arising from elevated temperatures, however, these losses double when considering the associated impact on labour productivity ([de Lima et al., 2021](#))
- India is currently facing a third year of falling wheat production due to extreme heat. In 2022, a compound heat and drought event lowered wheat production in India by 4 million tonnes ([The Diplomat, 2024](#))

Financial Impacts

- In Pakistan, a decrease in agricultural loan recovery has been shown to arise from negative climate conditions for crop cultivation ([Wahab et al., 2023](#))
- In a survey of agricultural finance institutions, 57% expect climate change to negatively impact the financial situations of their clients through higher probability of default and loss given default in the future ([Environmental Defence Fund, 2022](#))
- A stress test of Moroccan banks, conducted by the World Bank, found that an extreme (500-year) drought could cause NPL ratios in the agriculture sector to reach 10.53% ([World Bank, 2024](#))

Systemic Impacts

- Agricultural climate risks have systemic implications. Simultaneous climate shocks to multiple global breadbasket regions is becoming more likely due to climate change and could cause spike in global food prices ([McKinsey, 2020](#))



- Risks of simultaneous breadbasket failure vary for crops. Climate change is increasing the risk for wheat, maize, and soybean crops. Risks are decreasing for rice ([Gaupp et al., 2020](#))

Opportunities?

- The impact of physical climate- and nature-related risks on agriculture is generally negative, however in some instances business opportunities also emerge. For example, the profits of sugar cane producers in Mauritius is expected to grow by ~60% by 2030 ([FSDA-Vivid, 2022](#)).
- Shifting climates have made led to large parts of the UK become ideal wine growing regions and has led to significant expansion of the sector nationally over recent years ([Gannon et al, 2023](#)).
- Emerging cellular agriculture – increased market demand for alt-dairy, synthetic meat etc.

Agriculture-focused Adaptation solutions

Products and services



Climate resilient crops (e.g. drought-resistant seeds, new varieties including research and development expenditures)
 Drip irrigation / pressurised irrigation

Cooling sheds
 Field management (e.g., contour ploughing, bund maintenance, barrier crops)
 Integrated pest management
 Agroforestry

Finance and insurance



Farmland Investments
 Biodiversity Credits
 Parametric Insurance for Crop Loss
 Livestock Insurance

Products for Climate-Related Risks
 Green Bonds for Sustainable
 Livestock Management

Intelligence



Weather forecasting and early-warning systems for agriculture
 AI-powered predictive models of future growing conditions
 In-ground sensors to measure soil moisture
 Efficient watering systems for livestock
 Real-time herd health monitoring systems
 Software tools for pasture management

Adaptation taxonomies (e.g. CBI, Tailwind)

Enabling interventions



Advocacy for climate-resilient agricultural policies
 Farmer-to-farmer knowledge sharing networks
 Indigenous and local agricultural practice integration
 Sustainable pastureland management initiatives
 Agroforestry and silvopasture training workshops

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Where do you see the greatest challenges and barriers to Adaptation action today?

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— Adaptation for financial institutions

Using the PRB guidance to work strategically on adaptation

Overview of the guidance

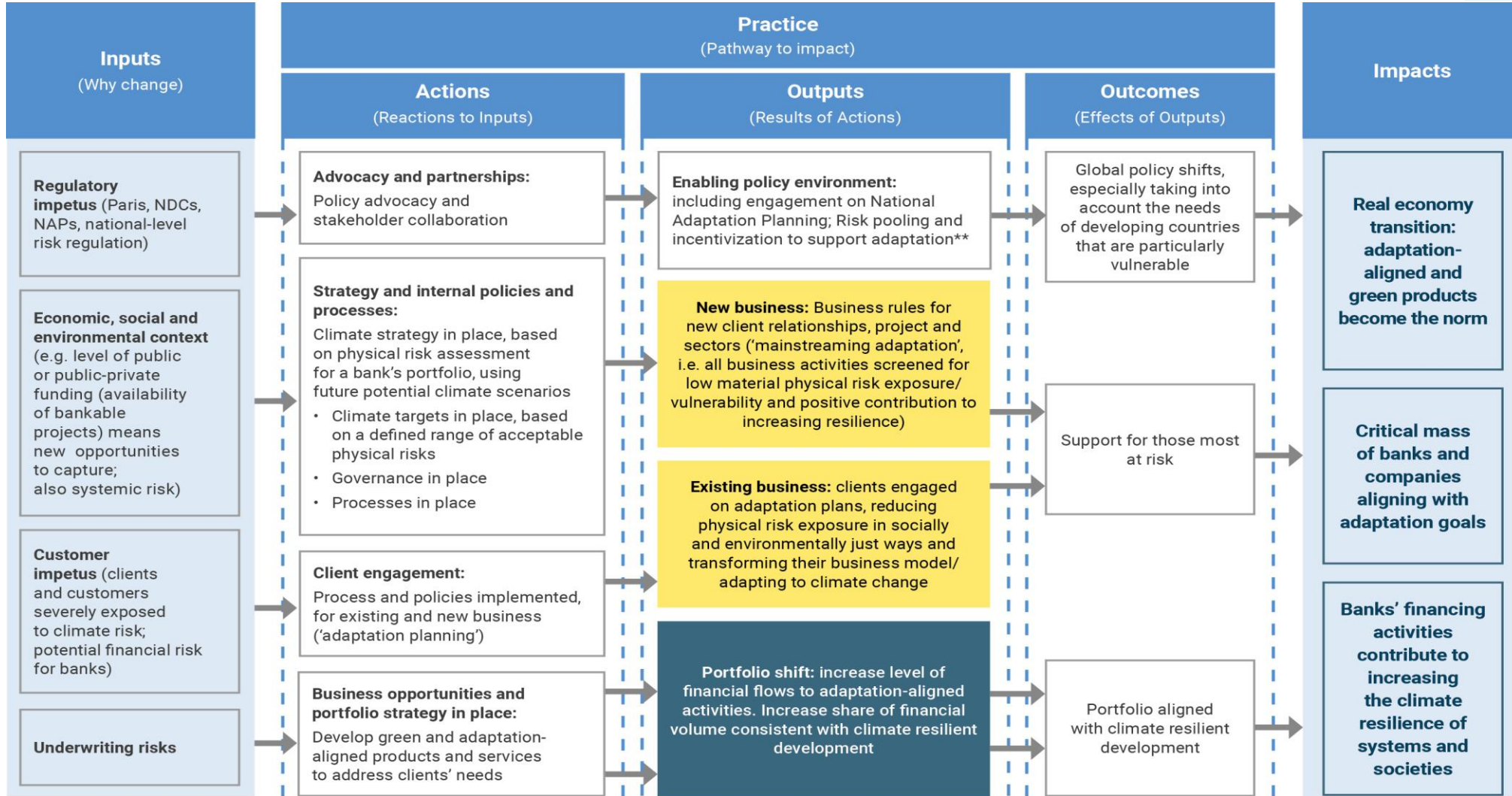
The Guidance is designed for banks that intend to **act on adaptation and resilience** and **align their activities and strategies** with the objectives of the Paris Agreement.

It was **co-developed** with 27 PRB banks from all world regions and strategic partners to ensure its applicability and alignment with other frameworks.

It adopts a **flexible approach** to target-setting, recognizing that banks are at different stages of progress. Examples for both banks at the early stage and more advanced banks are provided, reflecting the **urgent need for progressive action without compromising ambition**.



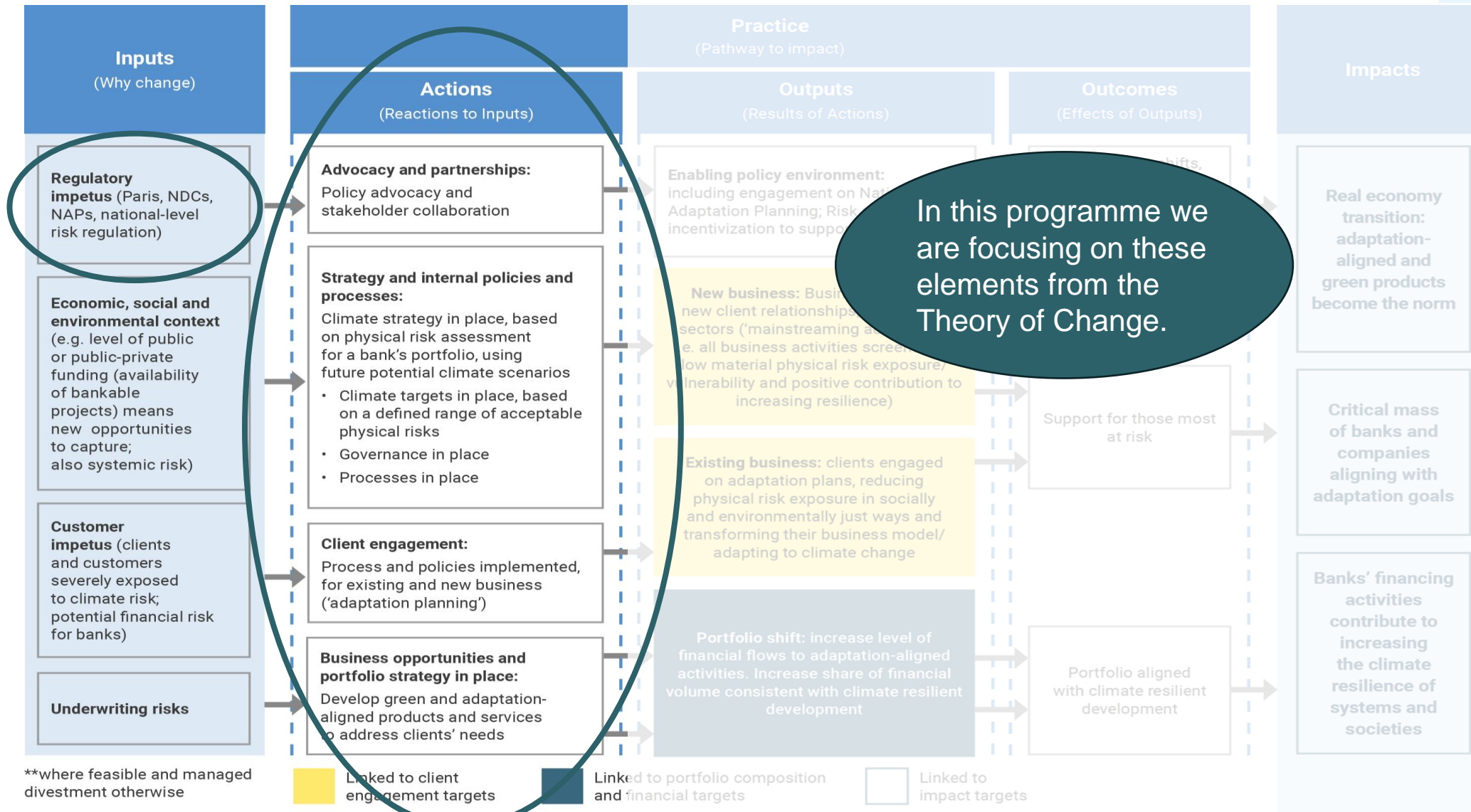
The Theory of change for adaptation



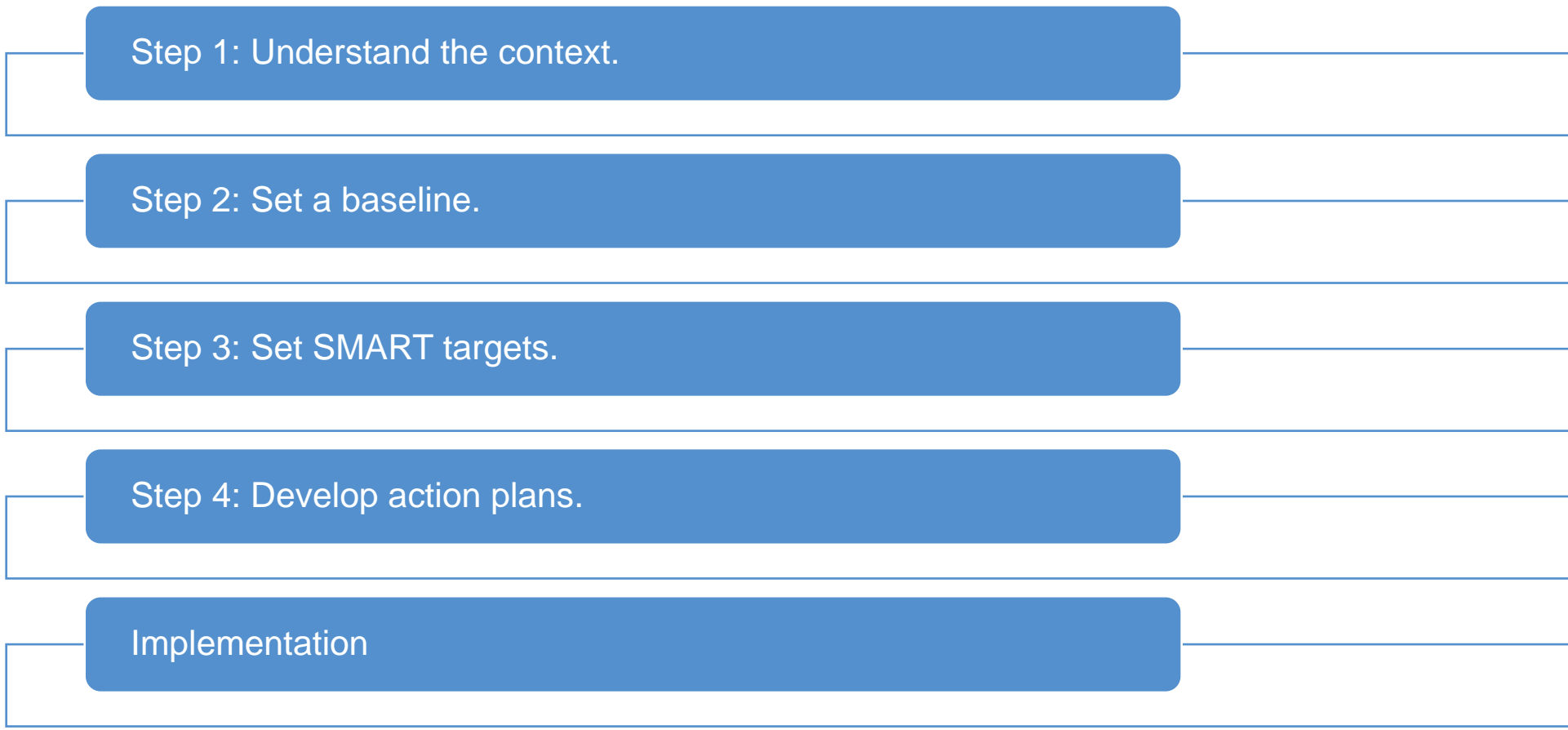
**where feasible and managed divestment otherwise

Linked to client engagement targets
 Linked to portfolio composition and financial targets
 Linked to impact targets

The Theory of change for adaptation



PRB adaptation framework—key steps



PRB adaptation framework—key steps

Step 1: Understand the context.

- Understand the climate adaptation policy context through national and regional adaptation planning and assessment frameworks and identify the most relevant goals and frameworks to align with.
- This step helps banks identify the priorities for climate resilient development in the contexts they operate.

Step 2: Set a baseline .

Step 3: Set SMART targets.

Step 4: Develop action plans.

Implementation

PRB adaptation framework—key steps

Step 1: Understand the context.

Step 2: Set a baseline.

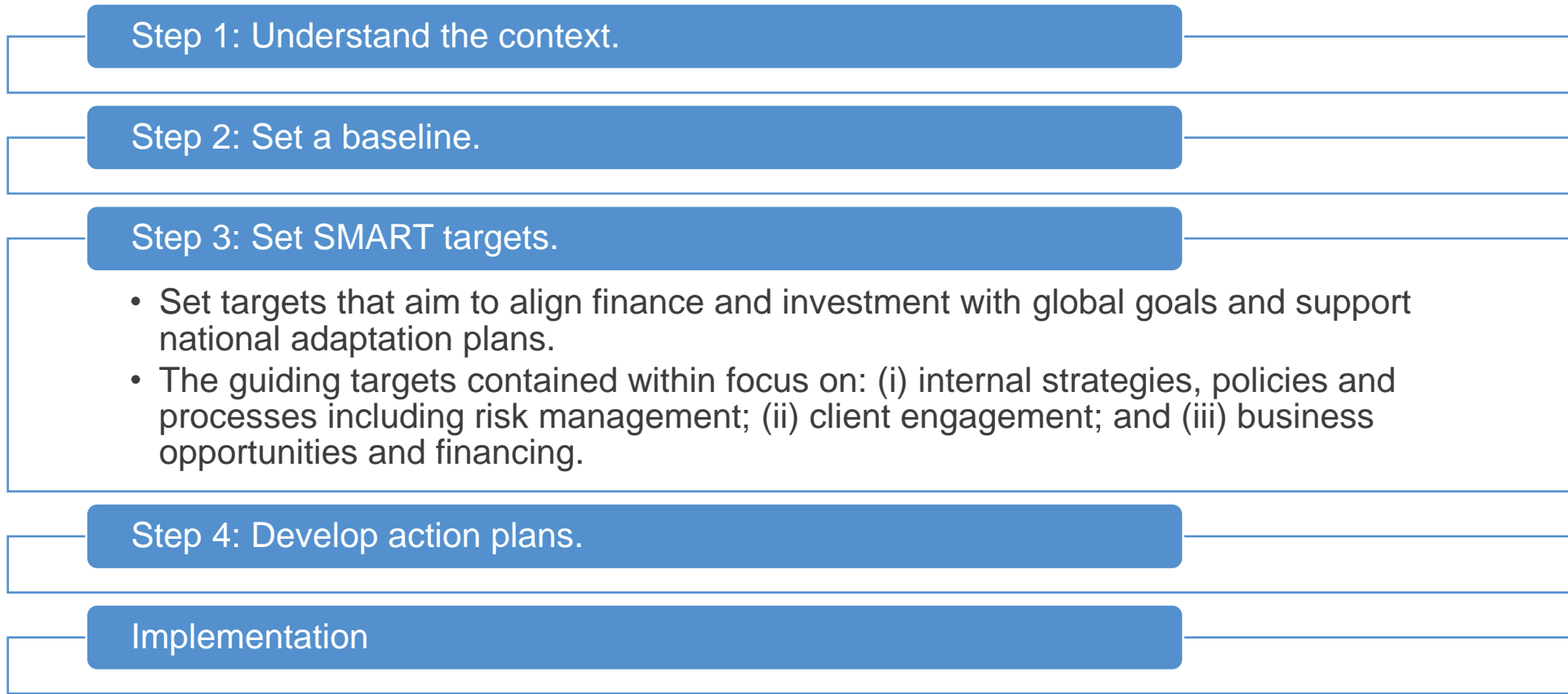
- Use climate risk assessments and scenario planning to understand climate impacts relevant to clients and own portfolios, utilising regulatory and/or supervisory approaches where these already exist.
- The results of the assessment are used to identify regions and sectors prioritised for developing adaptation measures.

Step 3: Set SMART targets.

Step 4: Develop action plans.

Implementation

PRB adaptation framework—key steps



PRB adaptation framework—key steps

Step 1: Understand the context.

Step 2: Set a baseline.

Step 3: Set SMART targets.

Step 4: Develop action plans.

- Develop action plans. Develop adaptation action plans, embed in internal processes, and set performance indicators for tracking progress.
- Consider interlinkages with climate mitigation, nature, and socio-economic development.
- The output of this step is a roadmap and internal strategy towards achieving the targets.

Implementation

PRB adaptation framework—key steps

Step 1: Understand the context.

Step 2: Set a baseline.

Step 3: Set SMART targets.

Step 4: Develop action plans.

Implementation

- The target setting steps are supported by key actions:
- incorporate adaptation in internal policies and processes, consult with stakeholders and clients, and identify adaptation opportunities leading to mobilisation of finance.

These actions, can lead to

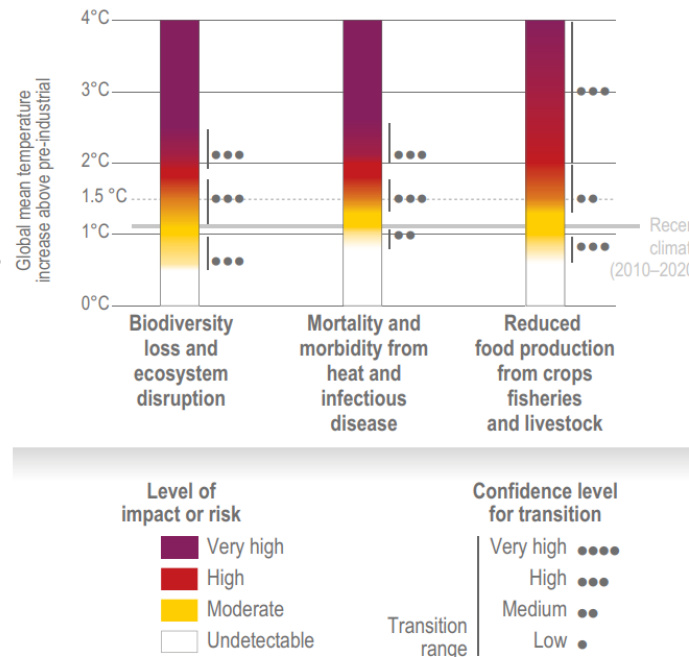
- Investment in adaptation projects and interventions
- Engagement with clients to understand and support their adaptation needs
- Development of new financial products and services that support adaptation
- Participation in public-private partnerships and blended finance

—
**Step 1:
Understand your context and
identify what to align with**

The adaptation challenge in Africa

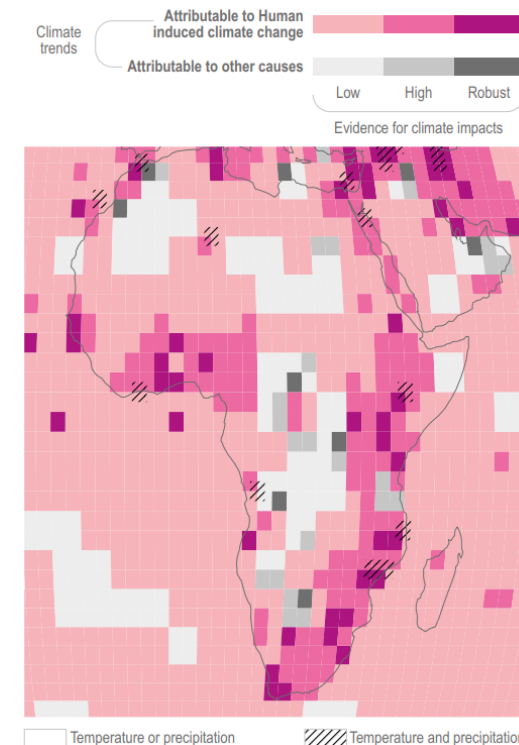
Africa collectively faces **three primary climate change driven-risks**

- Biodiversity loss and ecosystem disruption
- Mortality and morbidity from heat and infectious disease
- Reduced food production from crops, fishers and livestock



Each of these **risks increases with global mean temperature rises**

And **climate impacts on human and natural systems are widespread**, as are the climate trends attributable to human-caused climate change



Source: IPCC AR6

The adaptation challenge in the Middle-East



High Exposure to Climate Risks

The region is highly vulnerable to rising temperatures, water scarcity, and desertification. Climate projections indicate that the region could warm by up to 5°C by the end of the century, leading to more extreme heatwaves, increased droughts, and reduced agricultural productivity.



Water Scarcity and Food Security Challenges

With some of the lowest water availability per capita globally, adaptation measures are crucial for managing water resources and sustaining food production. Climate change is expected to worsen water stress, impacting food security and livelihoods across the region.

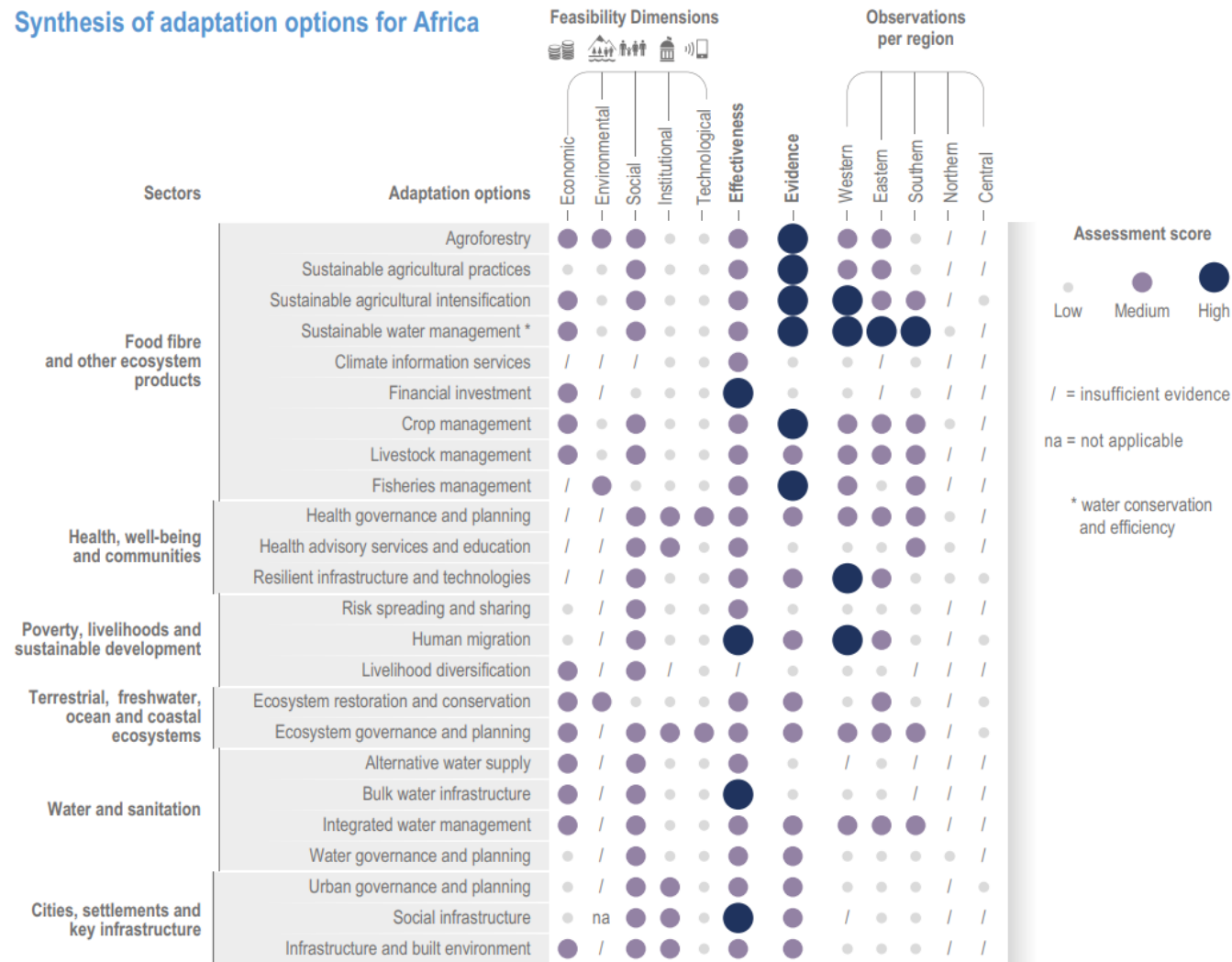


Human Health and Economic Impacts

With some of the lowest water availability per capita globally, adaptation measures are crucial for managing water resources and sustaining food production. Climate change is expected to worsen water stress, impacting food security and livelihoods across the region.

The adaptation opportunities in Africa

Synthesis of adaptation options for Africa



Assessment score

● Low ● Medium ● High

/ = insufficient evidence

na = not applicable

* water conservation and efficiency

How to act – begin with the national and regional context

Familiarise yourself with **national or regional adaptation priorities** for key markets, sectors and economic activities.

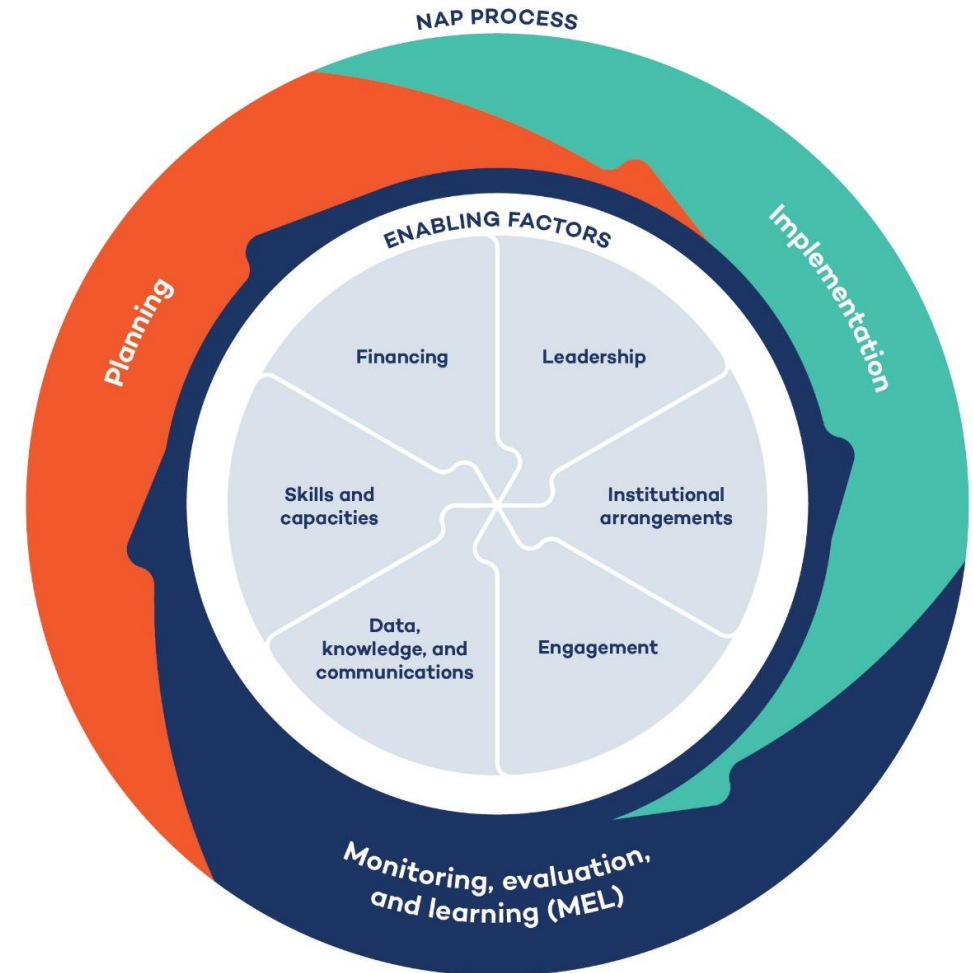


These will inform your bank's plans and roadmap towards developing its adaptation strategy.

- As a minimum, your bank could consider the Paris Agreement and Global Goal on Adaptation at international level, and national adaptation plans (NAPs) for country-level priorities.
- For practical reasons, **banks with global and diverse portfolios** could prioritise the review of NAPs in the regions that are most vulnerable to climate change and where they have significant presence.
- For **global contexts**, the Sharm El Sheikh adaptation agenda can also serve as a guide specifying the adaptation finance priorities in five key impact systems: food and agriculture, water, and nature, coastal and oceans, human settlements, and infrastructure.

A National Adaptation Plan overview




- A National Adaptation Plan (NAP) is a **strategic document developed by a country to outline its approach to adapting to the impacts of climate change.**
- NAPs are developed in accordance with the guidance provided by the United Nations Framework Convention on Climate Change (UNFCCC) and serve as a framework for a country's efforts to enhance resilience and reduce vulnerability to climate change.
- The **Paris Agreement requires all countries to develop and implement NAPs.**
- National Adaptation Plans outline
 1. The most significant climate hazards
 2. The key sectors affected
 3. Policy measures to enhance resilience.
- NAP are increasingly focusing on the **role of the private sector in financing adaptation needs**

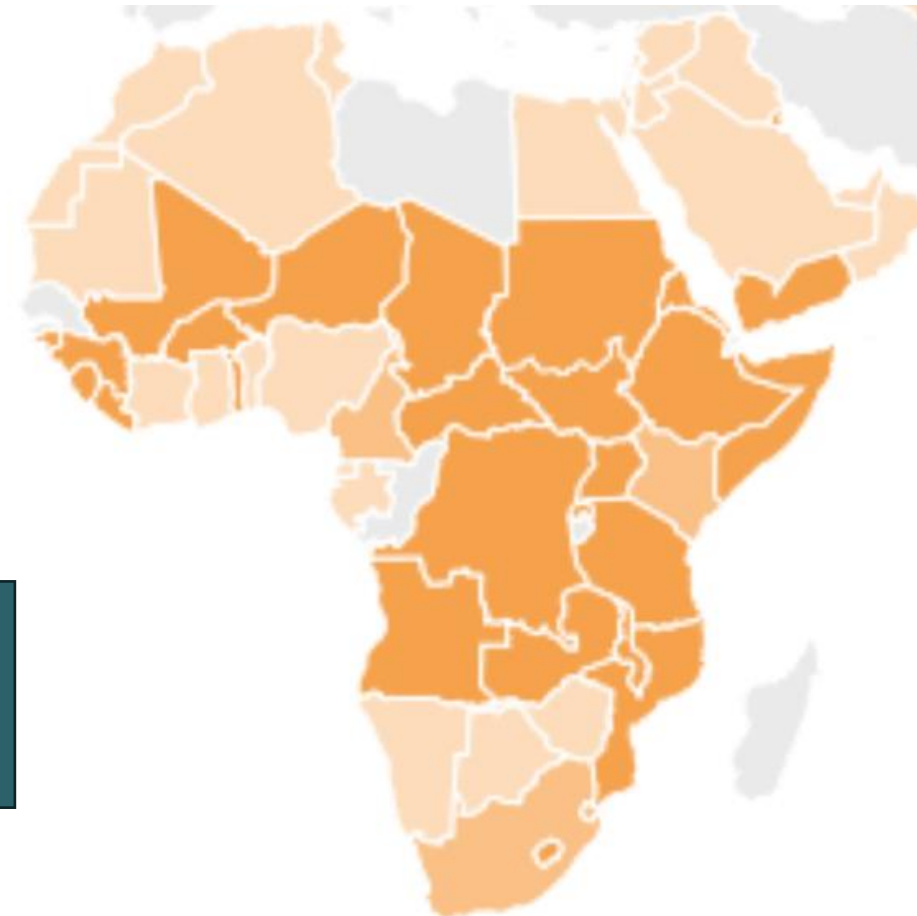


How well do you currently know your country's physical climate risks and National Adaptation Plans?



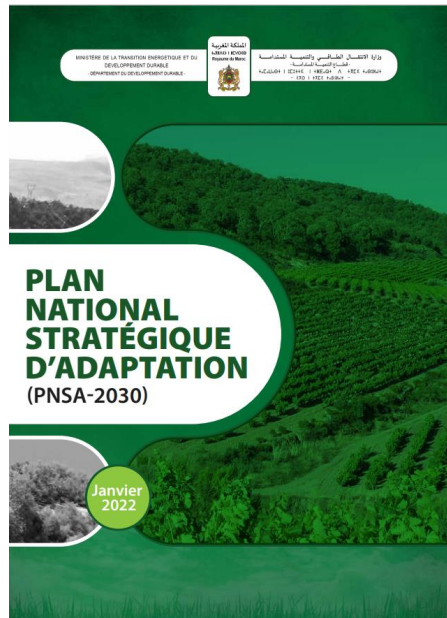
National Adaptation Plans in the region

- Developing country Parties that have initiated the process 
- Developing country Parties that have submitted a NAP 
- Least developed country Parties that have submitted a NAP 

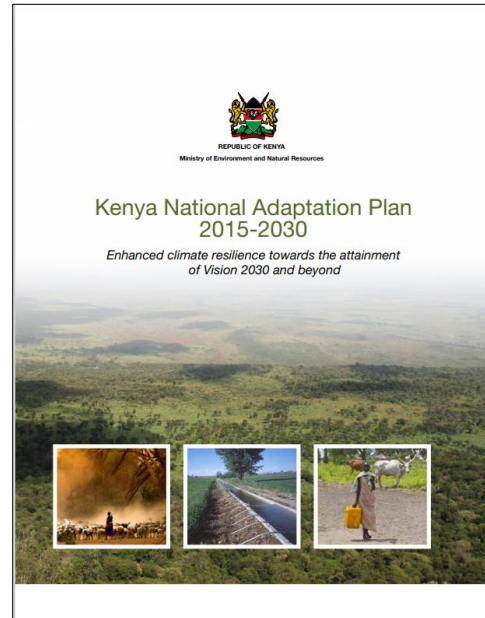


These NAPs comprise a comprehensive analysis of the climate change vulnerabilities of the countries, which you can use for your context analysis.

NAPs in the region – illustrative examples



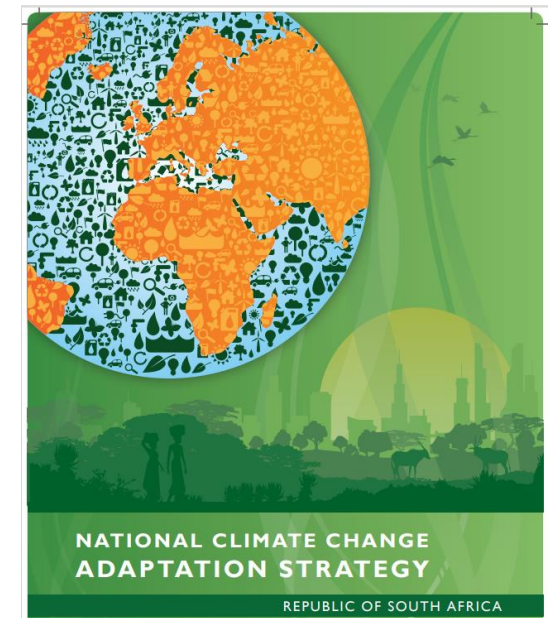
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https://unfccc.int/sites/default/files/resource/NAP_Kenya_2017.pdf



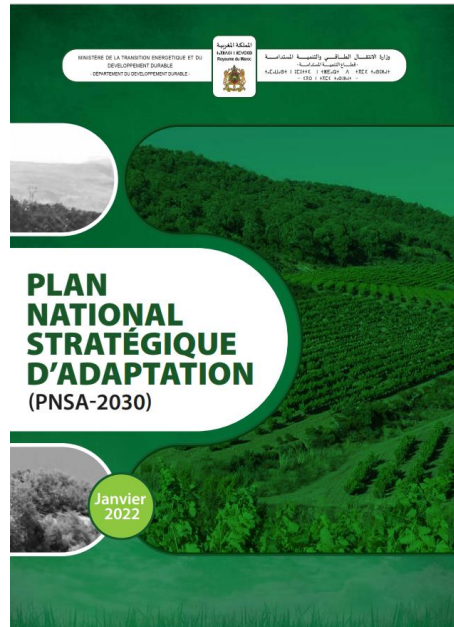
<https://unfccc.int/sites/default/files/resource/NAP-Togo-2018.pdf>



https://unfccc.int/sites/default/files/resource/South-Africa_NAP.pdf



Example: National Adaptation Plan of Morocco (extract)



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Introduction

National Climate Conditions

Impact and Vulnerability to Climate Change in Morocco

Coordination of Adaptation Actions

4.1 Current Institutional Arrangements

4.2 Relevant Policies

Adaptation Actions

5.1 Axis 1: Governance of Climate Change Adaptation

5.2 Axis 2: Research, Information, and Knowledge Sharing

5.3 Axis 3: Assessment, Prevention, and Reduction of Vulnerabilities and Climate Risks

5.4 Axis 4: Resilience of Resources and Sensitive Ecosystems

5.5 Axis 5: Resilience of Production Sectors

5.6 Mobilization of Resources (Financing of PNSA)

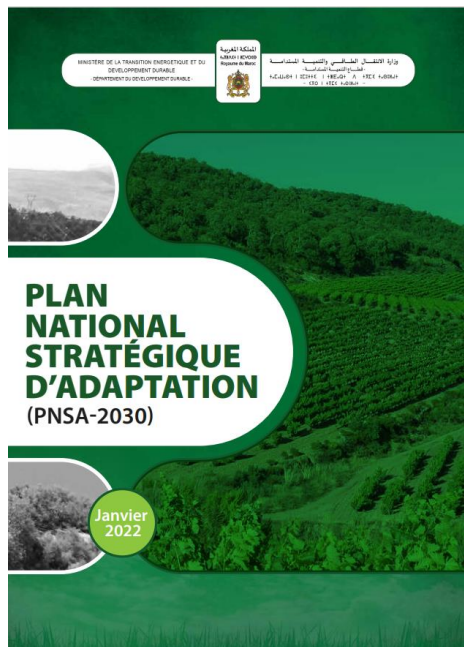
Monitoring and Evaluation

Future Steps

https://unfccc.int/sites/default/files/resource/PNSA_Morocco_Fr.pdf



Example: National Adaptation Plan of Morocco (extract)



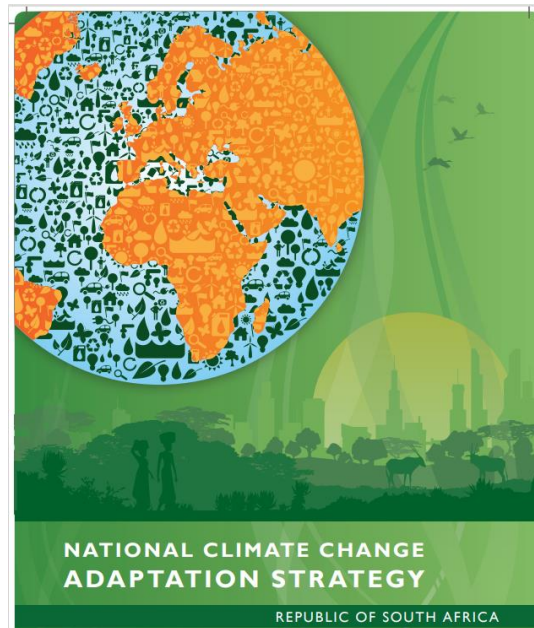
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Mobilization of Resources (Financing of the PNSA)

- Adaptation in Morocco has been financed through various mechanisms. For example, the INDH (National Initiative for Human Development) leads the poverty reduction programme, under which environmental issues like desertification, drought, biodiversity loss, and climate change have started to gain progressive attention. Often, actions were not explicitly labeled as adaptation, although they improved resilience to climate impacts. A challenge remains the lack of a centralized system for tracking climate financing, making it difficult to accurately estimate the funds allocated for adaptation.
- The adaptation needs will have significant budgetary implications for Morocco, affecting all economic sectors and the protection of human and animal health. Historically, between 2005-2010, Morocco allocated 64% of its climate expenditures to adaptation, particularly in the water sector, representing 9% of total investment spending. For the period 2020-2030, Morocco estimates that the cost of implementing adaptation programmes in the water, forestry, and agriculture sectors—those most vulnerable to climate change—will amount to a minimum of 35 billion US dollars.
- The Climate Business Initiative of Morocco (IECM), led by the General Confederation of Moroccan Enterprises (CGEM), offers concrete technical, technological, and financial solutions for businesses, both in terms of mitigation and adaptation.
- **The funding required to meet adaptation goals exceeds the capacity of national public resources, necessitating the involvement of the private sector and international climate finance from bilateral and multilateral sources.**

Example: National Adaptation Plan of South Africa (extract)



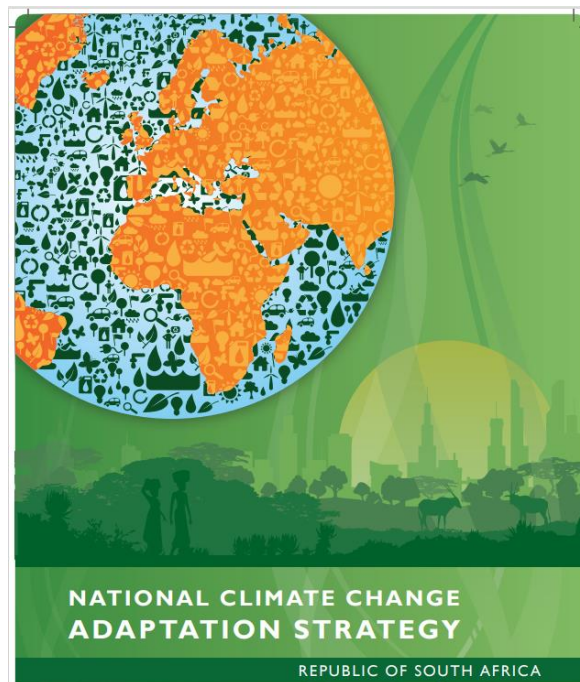
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Example: National Adaptation Plan of South Africa (extract)



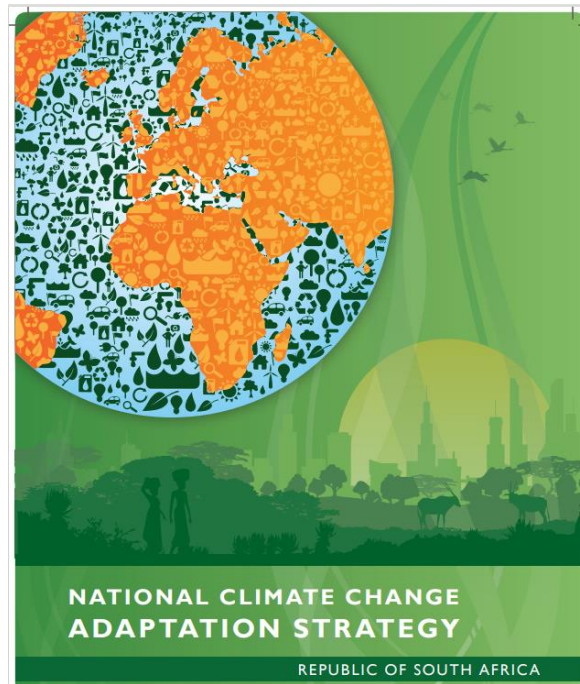
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Adequate financial resources for national adaptation priorities from the national fiscus and international sources

Action	Description
8.1.1 Carry out a cost-benefit analysis of the NCCAS	This will involve developing a cost-benefit analysis of the NCCAS, initially to determine the full cost of implementing the NCCAS. Thereafter the benefits of the NCCAS will be identified and quantified.
8.1.2 Develop a gender-responsive resource mobilisation strategy	This will involve developing a resource mobilisation strategy through a participatory process with different stakeholders to highlight all activities involved in securing new and additional resources for implementing the strategy. The resource mobilisation strategy will also recommend ways to maximise the use of existing resources and ensure that the most vulnerable groups are included and that they are beneficiaries.
8.1.3 Develop a gender-responsive national climate investment plan	This will involve developing a national climate investment plan, through a participatory process involving different stakeholders, to provide a set of robust and financeable adaptation projects and programmes for consideration by domestic and international funders. The plan will ensure that the most vulnerable groups are included and that they are beneficiaries.
8.1.4 Expand the list of government entities accredited for climate financing	This will involve identifying additional government entities that are appropriate to accredit for climate financing and supporting them through the accreditation process. The throughput of adaptation projects to dedicated multilateral climate funds will be maximised by expanding the list of accredited government entities to include well-capacitated municipalities and provinces.
8.1.5 Build the capacity of local accredited implementing entities to access adaptation finance	This will involve building the capacity of accredited implementing entities to improve their ability to secure finance. This will assist South Africa to maximise the allocation of adaptation finance from dedicated multilateral climate funds.
8.1.6 Develop a project preparation assistance fund	This will involve establishing a project preparation fund to support entities with potential, but insufficient internal funding, to prepare applications.

Example: National Adaptation Plan of South Africa (extract)



https://unfccc.int/sites/default/files/resource/South-Africa_NAP.pdf



Action	Description
8.1.7 Mainstream NCCAS priorities into the Medium Term Strategic Framework and assign implementation responsibilities	This will involve mainstreaming NCCAS priorities into the Medium Term Strategic Framework and assigning implementation responsibilities to ensure that the NCCAS is implemented by sectors and spheres of government.
8.1.8 Investigate options to include climate change adaptation parameters in the equitable share allocations of state revenue calculations	This will involve investigating options to include climate change adaptation parameters in the equitable share allocations of state revenue calculations.
8.1.9 Promote knowledge exchange on the economic benefits of public and private sector adaptation action	This will involve documenting public and private sector adaptation actions and the economic benefits of these actions, and ensuring that this information is shared widely. This will assist in promoting the uptake of adaptation action by other public and private sector entities.
8.1.10 Invest in new gender-responsive technology and innovation	This will involve investing in new technologies and innovations that can support climate change adaptation in South Africa.
8.1.11 Build a business case for adaptation in terms of national budgeting for adaptation and develop co-finance mechanisms to leverage donor funds	This will involve building a business case for adaptation in terms of national budgeting for adaptation actions in the country and developing co-finance mechanisms to leverage donor funds.
8.1.12 Create a financial oversight mechanism for donor funding	This will involve ensuring that the public have oversight over adaptation finance.

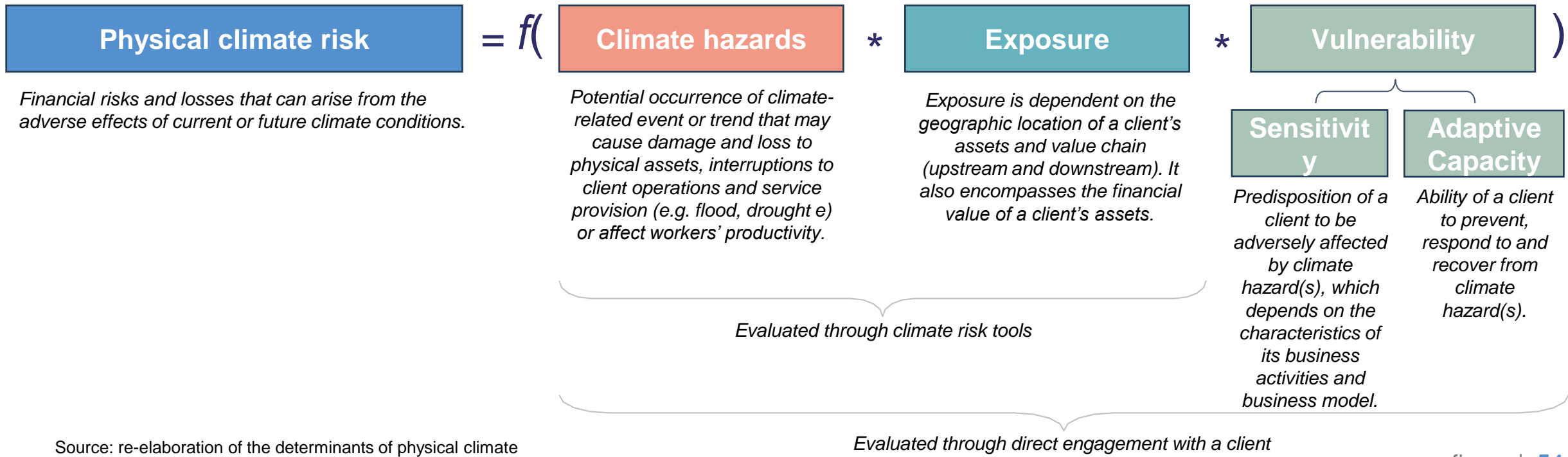
Aligning with NAPs – key takeaways

- Banks should align adaptation strategies with the **global and national adaptation goals**.
- Alignment, a core Principle under the PRB framework, in this context may include incorporating **climate resilience objectives in strategies** by considering how it affects the **bank's business model and long-term sustainability goals**.
- NAP adaptation objectives and priorities relevant to the private sector and financing needs may inform **internal policies for risk management, lending criteria and investment guidelines** and aligning action with prioritised sectors and economic activities as they relate to the bank's portfolio.
- NAPs establish national goals and pathways, but vulnerabilities and **adaptation needs can vary significantly at the local and sector levels**.
- Where possible and practical, adaptation efforts can be tailored to local realities, especially in vulnerable and economically significant sectors.

—
**Step 2:
Setting the baseline: Physical
risk assessment**

The physical climate risk equation –foundational framework supporting PCR identification, assessment and management

The physical climate risk to a client is a function of the dynamic exposure and vulnerability of the client to climate-related hazards, either individual hazards or a combination of hazards. The ‘physical climate risk equation’ provides a consistent and complete framework to assess client physical climate risk for banks.



Source: re-elaboration of the determinants of physical climate risks from the IPCC Fifth Assessment Report and its evolved version in [IPCC Sixth Assessment Report](#).

In a banking context three existing bank activities and processes can be targeted as a priority to integrate PCR identification, assessment and management

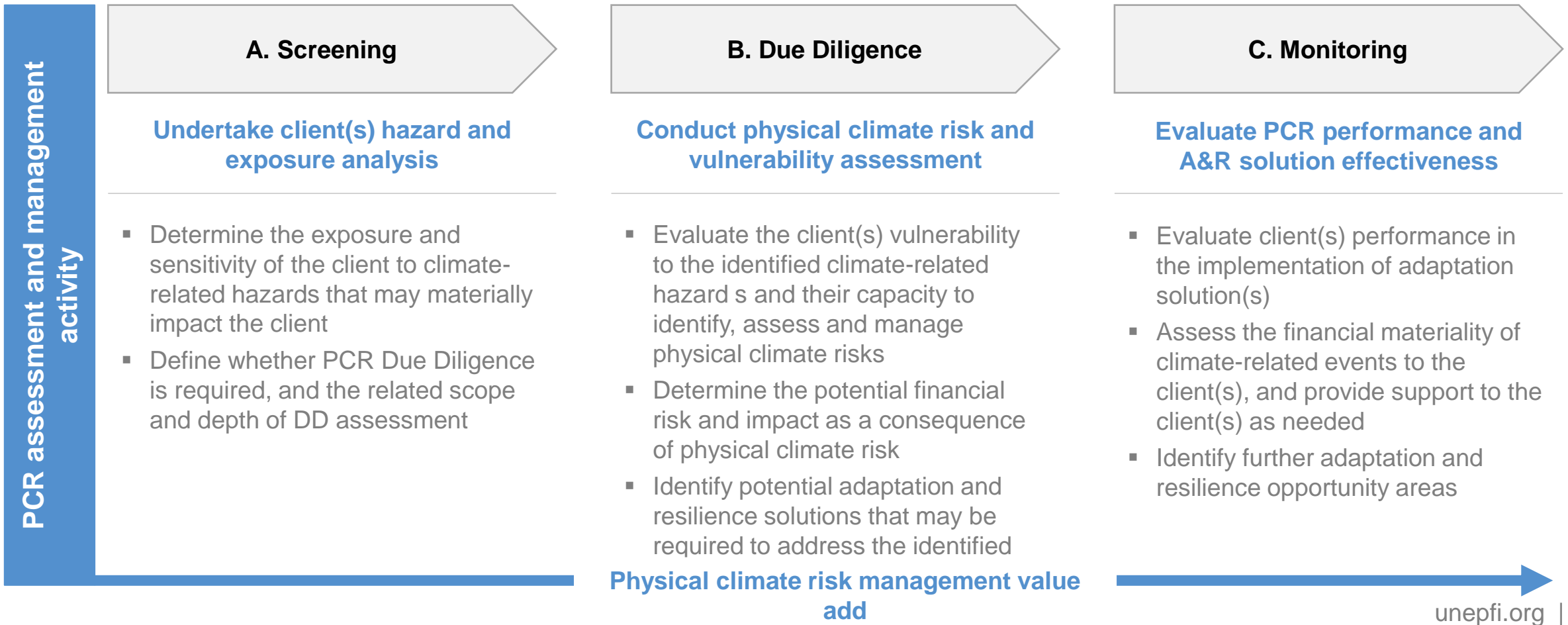
Bank activity	PCR identification, assessment and management outcomes	Target output
A. Screening	Identify the physical climate risk drivers that may materially affect the client(s) performance	Inherent physical climate risk rating ¹
B. Due diligence	Gain an enhanced understanding of client(s) exposure and vulnerability to physical climate risk and the related implications, and identify and evaluate adaptation and resilience solutions	Residual physical climate risk rating and adaptation action plan ²
C. Monitoring	Oversee and support the client(s) to implement adaptation and resilience solutions and build physical climate risk management capabilities, followed by receiving information on physical climate risk management and effectiveness	Adaptation action plan performance monitoring and residual risk rating update

The physical climate risk profile of a client(s) is continuously refined as more information is made available, and client context further understood

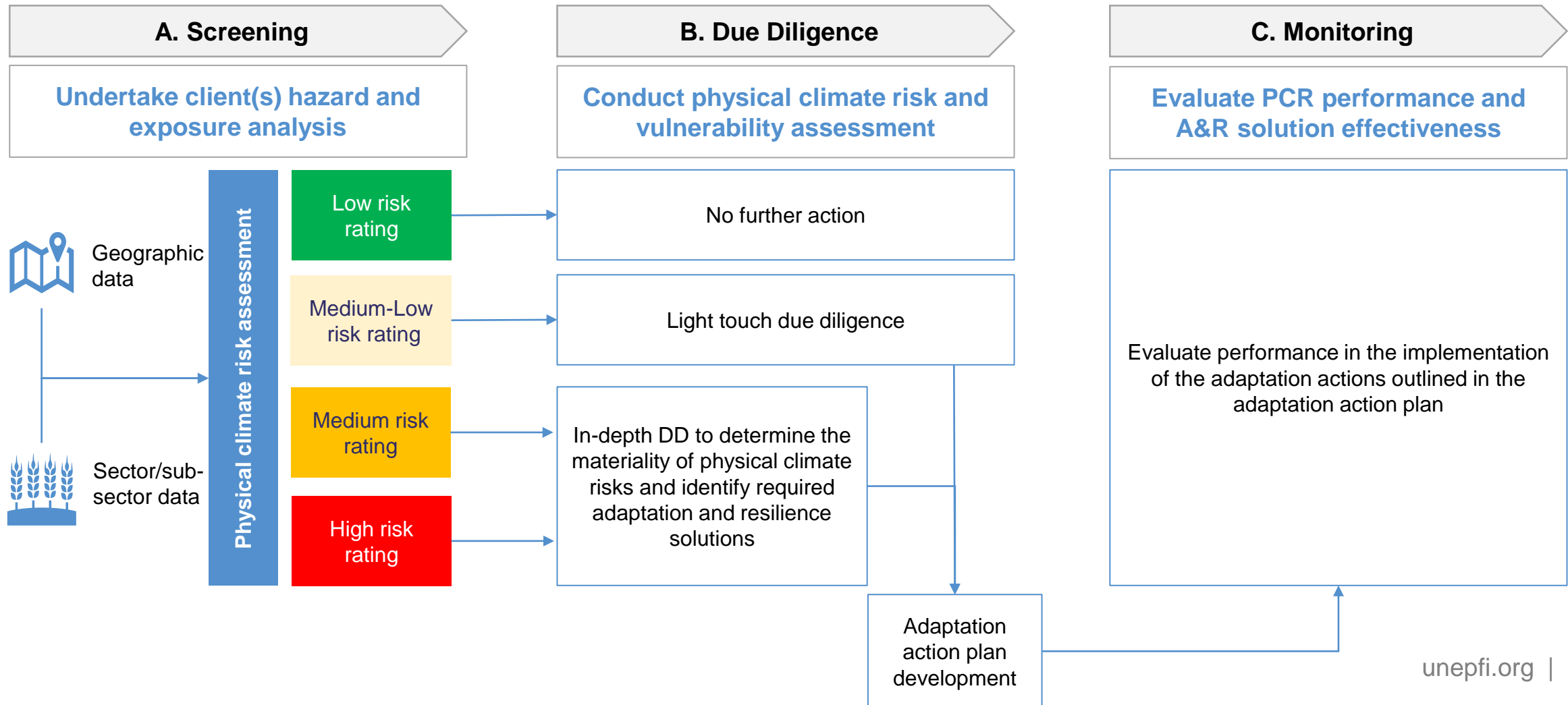
Definitions

1. The level of risk in the absence of any actions taken to alter either the impact or probability of the risk itself. It does not include any adaptation measures implemented by the client.
2. Level of risk remaining following the implementation of risk reduction efforts (adaptation and resilience interventions).

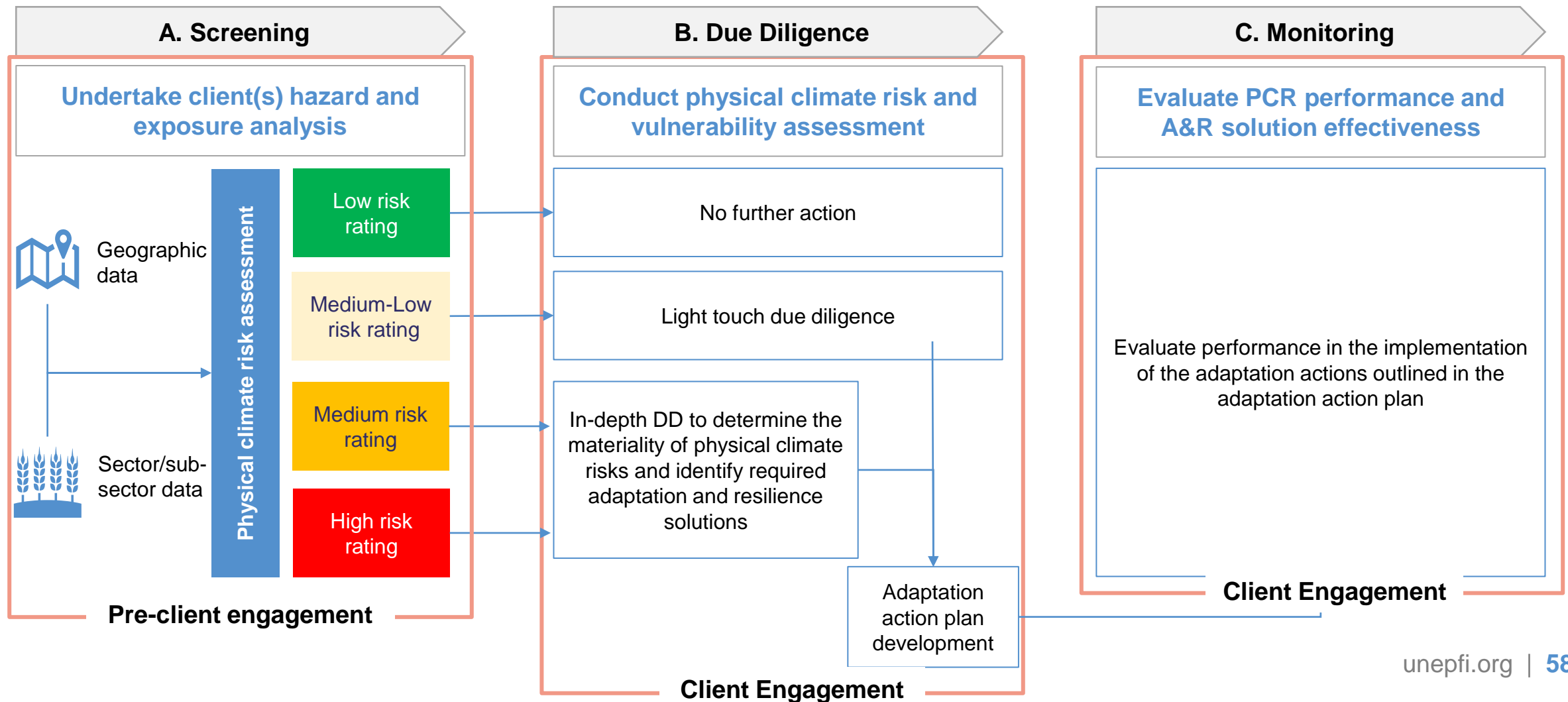
The high-level approach to PCR assessment and management for banks, with Screening outputs triggering different subsequent bank actions



A visual flowchart of the high-level PCR assessment and management approach, with Screening outputs triggering different subsequent bank actions



For client(s) generating Medium-Low to High-risk ratings at the Screening stage further Due Diligence is undertaken, with Client Engagement required for effective completion



Key considerations



Key considerations



Key considerations



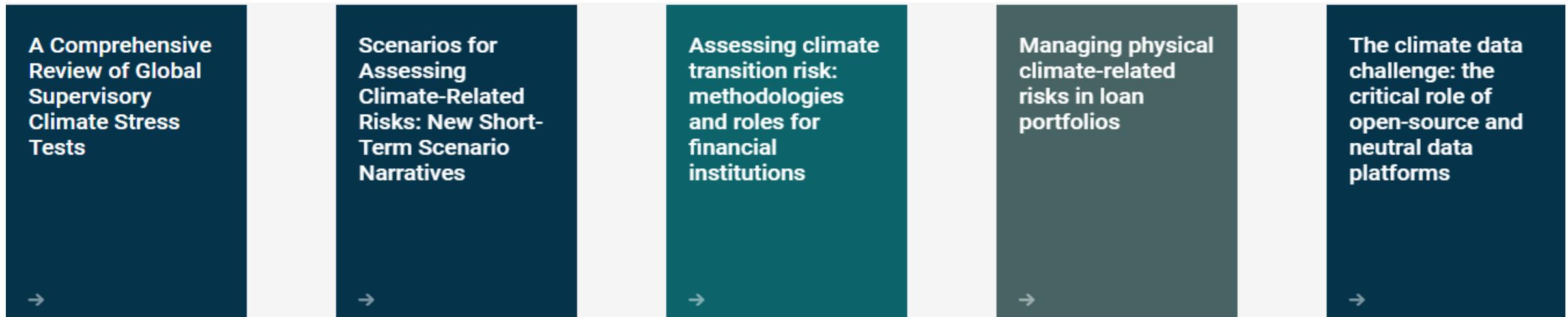
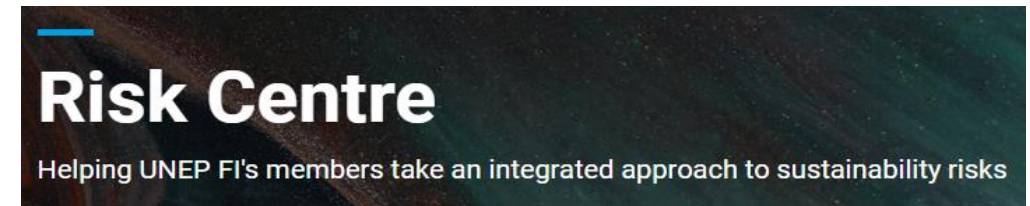
Your banks should also consider the following guiding questions:

- Are clients aware of the risks from the physical impacts of climate change?
- Are they assessing their risk from physical climate-related impacts and putting in place a risk management strategy?
- Are clients aware of how they can manage and mitigate climate-related risks?
- What are local and national governments doing to address particular climate impacts?
- What technologies or activities are available to clients to reduce their climate-related physical risks?

+ Other elements of baseline setting

A note on risk assessments

- In this capacity building programme we don't cover physical risk assessments in detail
- If you need further support on risk assessment, we recommend checking the UNEP FI Risk Center's trainings and resources
- We are just going to zoom on some unique aspects that are key for your adaptation actions



Additional resources and references

Physical climate risk assessment resources

- [ARUP \(2024\), Universal Taxonomy for Natural Hazard and Climate Risk and Resilience Assessments](#)
- [How to perform a robust climate risk and vulnerability assessment for EU taxonomy reporting \(including translation matrix for climate hazards across IPCC/EEA to EU Taxonomy classification\)](#)
- [Equator principles \(2023\) Guidance Notes on Climate Risk Assessment](#)
- [EBRD \(2019\), advancing TCFD guidance on physical climate risks and opportunities](#)
- [ISO Standard 14091:2021 Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment](#)
- [British International Investment: TCFD Implementation toolkit](#)
- [UNEP-FI: Climate Risk Landscape Report 2024](#)

Sector guidance resources

- [Infrastructure](#) – Technical Guidance on Climate Proofing Infrastructures (European Commission, 2021)
- [Infrastructure](#) - IIGCC PCRAM (Physical Climate Risk Assessment Methodology) in Practice: Outputs and insights from climate resilience in action
- [Energy](#) - Hydropower Sector Climate Resilience Guide (Hydropower.org)
- [Transport](#) - Climate Risk and Ports: A practical guide on strengthening resilience (IDB Invest)
- [Water](#) - Resilient Water Infrastructure Design Brief (World Bank)

Physical climate risk screening tools

- [UNEP FI Climate Risk Tool Dashboard](#)
- Water-related risks: WWF's Water Risk Filter Tool; [WRI's Acqueduct](#)
- Wildfire risks: [ESA's World Fire Atlas](#)
- Sea Level risks: NASA IPCC Sea Level Projection Tool - [NASA Sea Level Portal](#)
- Multi-hazard: NGFS's [Climate Impact Explorer](#) by Climate Analytics
- Multi-hazard: OS-C, [Open-source Climate: Physical and Resilience tools](#)

Climate Adaptation & Resilience metrics and measurement

- [ARIC Adaptation & Resilience Impact: A measurement framework for investors](#)

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What data gaps (if any) do you have for risk assessments? Any ideas how to overcome these challenges?

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What are some of the challenges and opportunities that you see for your bank in adaptation in the context and region that you operate?

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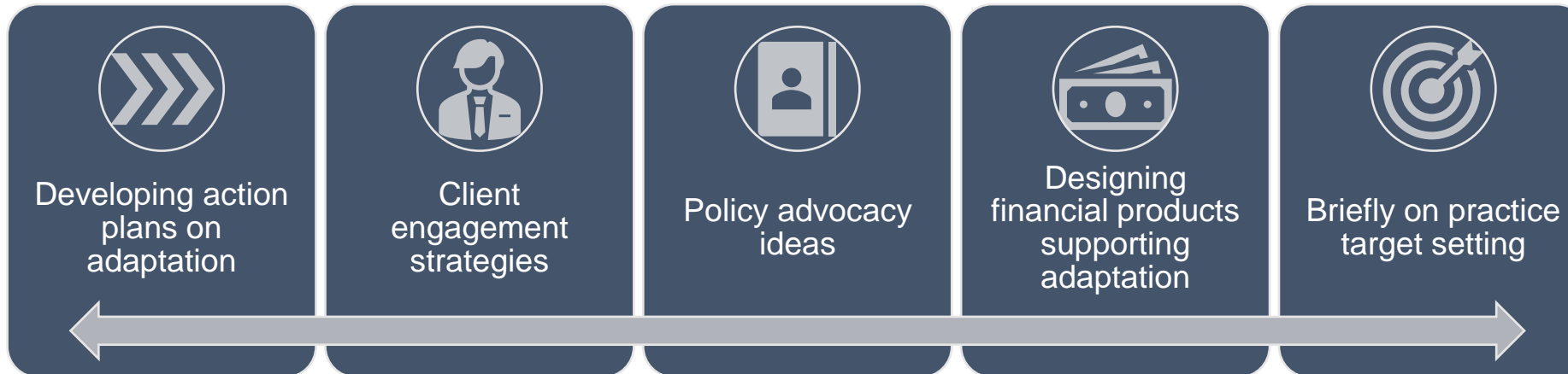
Have you provided climate adaptation support to your clients? If yes, how?

① Start presenting to display the poll results on this slide.

— Closing

Coming up next...

- We are going to send you the links to the presentation & recording in an email
- In that email we will be inviting you to work on an optional practical exercise that should help you start implementing things we covered today
- Next workshop on 27 November with key topics such as

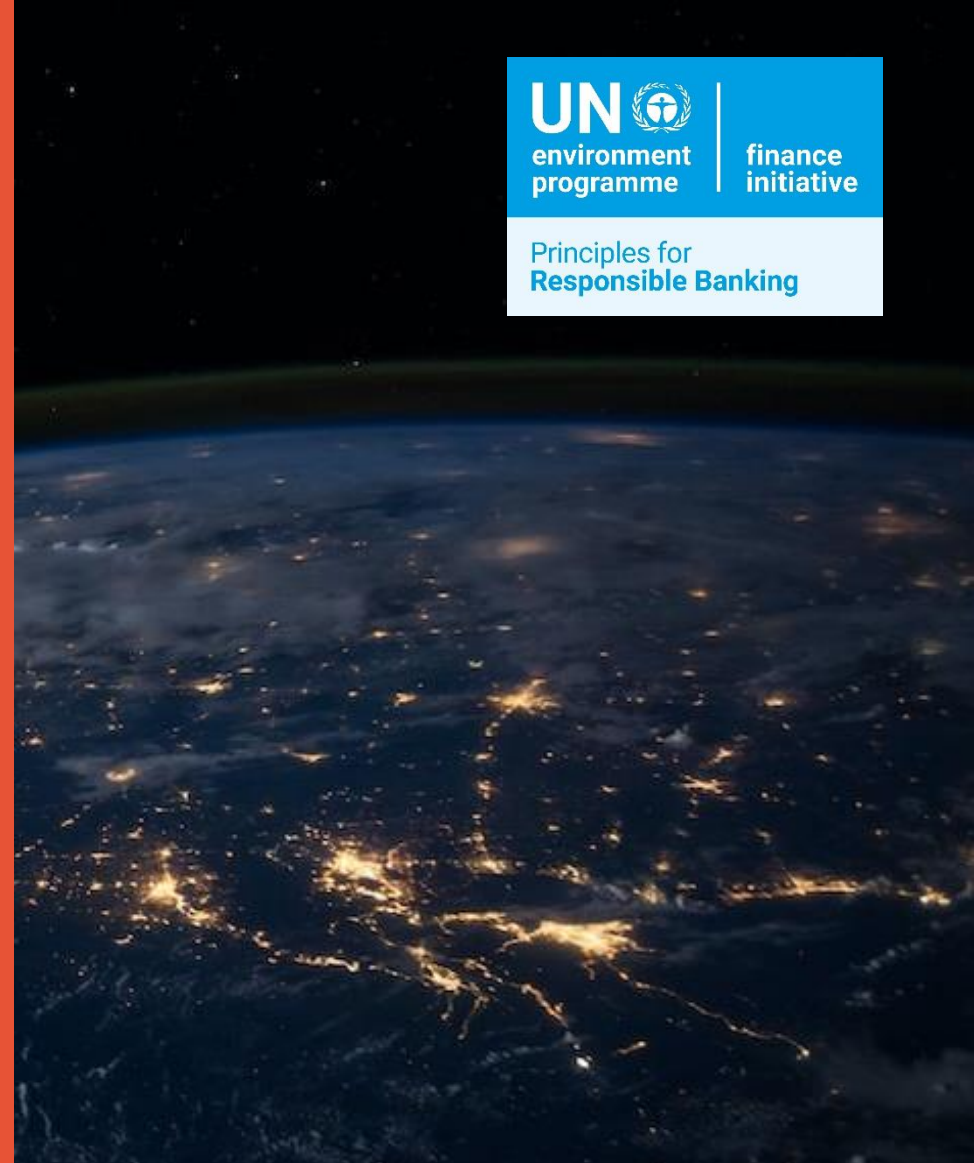


Thank you for your attention!

General UNEPFI contact: nuran.atef@un.org and kwa.fosah@un.org (Regional Coordinators)

Specifically for the climate capacity building:
gabor.gyura@un.org
(Capacity building consultant)

Please stay with us for 2 more minutes and evaluate the session on Slido. The [survey](#) remains open after the workshop. This is important for us to further develop the programme



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Evaluation survey

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Global frameworks for alignment

- Paris Agreement
 - Article 2.1(c) establishes the goal of making “finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development” (UNFCCC, 2015). Aligned portfolios will shift composition and financial flows towards a greater proportion of assets that are resilient to climate change.
 - **This requires assessment of the adaptation plans of individual counterparties and harmonised resilience indicators.** The priorities and measures for resilience are context dependent and developed by individual countries, however the Paris agreement should be viewed as the main overarching global framework agreement for alignment establishing the global goals and requirements for adaptation planning.



Global frameworks for alignment



- Global Goal on Adaptation (GGA)
 - Article 7.1 of the Paris Agreement established a GGA to ensure an adequate adaptation response in the context of the climate mitigation temperature goal.
 - At present, the definition is too broad to guide banks on portfolio alignment, due to the lack of frameworks and indicators defining and tracking climate risk and vulnerability reduction.
 - The 2022–2023 Glasgow-Sharm el-Sheikh (GlaSS) Work programme aims to define the key elements of the goal, including the methodologies, indicators, metrics, and data sources to support the assessment of overall adaptation progress.
 - The agreed frameworks and indicators will enable operationalisation of the GGA and progress tracking, which allow the development of a vision for what can be achieved as a result of global adaptation efforts.

Global frameworks for alignment

- Marrakesh partnership and the Sharm El Sheikh Adaptation Agenda
 - The Marrakesh Partnership was launched in 2016 as a framework for collaboration between governments and non-state actors to accelerate climate action and achieve the goals of the Paris Agreement.
 - The Sharm El Sheikh Adaptation Agenda defines thirty global priority adaptation outcomes for 2030 in terms of "impacts" and finance mobilisation, which then need to be adapted to the bank's regional context. It focuses on five key impact systems: food and agriculture, water and nature, coastal and oceans, human settlements, and infrastructure.
 - Planning and finance goals are cross-cutting enablers across these categories, although there is no distinction between the contributions of the public and private sector.
 - Priority outcomes for Africa can serve as a complementary reference for alignment of medium-term objectives for banks operating in the region or as a guide for targeted participation in blended finance.

