

PrivABoo Module on Introduction to Climate Change Adaptation and the Definition of “Adaptation SMEs” – In-person workshop

Training Manual



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1. Introduction

Brief overview of the training

Given the potentially high sustainable development impact of climate adaptation ventures, there is a growing interest from impact investors in climate change adaptation. Awareness of and access to tangible investment opportunities nevertheless remain limited. According to the Global Risk Institute¹, investors struggle to assess the climate resilience of businesses and evaluate their investment portfolios in the context of adaptation to climate change. This poses a challenge for innovators and entrepreneurs to find funding opportunities, which is especially relevant for adaptation-relevant SMEs. They may struggle to access investments that allow them to sustain and grow their adaptation business models. To address these challenges, SMEs must develop a clearer understanding of what constitutes an “Adaptation SME” and how their business models align with climate adaptation goals. Strengthening their theoretical foundation in climate change adaptation and understanding the regional implications is a key step toward positioning themselves more effectively in the adaptation finance landscape.

The Private Adaptation Investment Bootcamp (PrivABoo)

The training module has been developed as part of the Private Adaptation Investment Bootcamp (PrivABoo). PrivABoo is a peer-learning approach targeting practitioners (entrepreneurs, start-ups, companies, investors, accelerators, enterprise support organizations, ...) at various stages of climate change adaptation investments and finance, mixing & matching different learning formats (networking, dialogue, training and individual advisory services), to equip small- and medium-sized enterprises (SMEs) and impact investors with tools, information, and skills to scale up SMEs with business models in the field of climate change adaptation & resilience, build a network that enables knowledge sharing, business creation and acceleration, and innovation partnerships, and develop a scalable approach to promote private adaptation finance and investments.

PrivABoo is a product of the project Private Adaptation Finance (part of the global GIZ climate project NDC Assist II), which is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, on behalf of the German Federal Ministry for Economic Cooperation and Development, until the end of 2025.

¹ Global Risk Institute. (2020). Managing Climate Risk: The Implications for Investors. Retrieved from <https://globalriskinstitute.org/publications/managing-climate-risk-the-implications-for-investors/>

2. Workshop Objectives

The training aims to equip adaptation-relevant SMEs with a solid understanding of climate change adaptation, enable them to position their businesses as Adaptation SMEs, and support them in identifying opportunities to strengthen their business models and improve their access to climate adaptation finance.

The Module on Introduction to climate change adaptation and the definition of “Adaptation SMEs” and peer-exchange will focus on:

- Building participants’ understanding of the theoretical foundations of climate change adaptation and its specific implications for their region and business models.
- Introducing the concept of an “Adaptation SME” and enabling participants to position and describe their own business cases within this framework.
- Supporting SMEs in developing a concrete plan to strengthen their positioning as Adaptation SMEs and identify opportunities for business development.
- Providing space for initial in-person exchange between SMEs and the GIZ team, including feedback collection and orientation on the next steps in the learning journey.

Expected key takeaways

- ✓ Participants are familiar with the theoretical basis for climate change adaptation and know the concrete impacts and implications for their region and their business model.
- ✓ Participants are familiar with the concept of an “Adaptation SME” and can situate and describe their own business case accordingly.
- ✓ The SMEs have developed a concrete plan on how they will use the further PrivABoo process to raise their profiles as Adaptation SMEs and harness related opportunities for business development.
- ✓ The SMEs have had the opportunity to have a first in-person exchange with the GIZ team, provide feedback, and learn about the next steps of the PrivABoo learning process.

3. Product Overview

This Module on Introduction to climate change adaptation and the definition of “Adaptation SMEs” will be composed of three in-person workshop days. They include technical inputs and learning as well as sessions with a strong focus on peer exchange and the development of concrete examples and strategies. The sessions will be accompanied by individual assignments tailored to the respective SMEs and the preparation of materials for the peer learning sessions.

Day 1 – Climate Change Adaptation: Global discussion – local consequences

Objective: SMEs will get familiar with the scientific insights on climate change adaptation, as well as significant national and international political processes, plans, commitments, and agreements. The training will put the spotlight on private sector actors, and SMEs in particular, and their key role in the achievement of local, national, regional, and international priorities for climate change adaptation.

Day 2 – Understanding the Role of SMEs in Climate Change Adaptation

Objective: SMEs will understand how they can contribute to building climate resilience, meet adaptation needs, and unlock business opportunities that support sustainable development. Participating SMEs will have the opportunity to work on various aspects of their own business models, identify improvement potential, and develop concrete ideas and plans to enhance their adaptation impact and profile.

4. Training Methods

To enhance participant engagement and learning, the Workshop uses a variety of interactive methods. The sessions include Icebreakers, where participants share a short personal experience related to adaptation, fostering connection, and setting the stage for discussion. Through the “Developing Your Adaptation Narrative” exercise, the participants reflect on their own climate change context and how their business contributes to the resilience of its clients. They also need to develop an Action Plan in this module, defining their business objectives. All these exercises ensure practical application and a deeper comprehension of the concepts discussed.

The sessions encompass the following training methods:

- **Lecture:** Provide theoretical knowledge and key concepts.
- **Group Discussion:** Encourage exchange of ideas and peer learning
- **Hands-on Exercises:** Engage in practical activities to reinforce learning
- **Peer learning presentation:** Participants share their results of an exercise or group work with the plenary
- **Guest Speaker Sessions:** Gain insights and inspiration from experienced practitioners, including entrepreneurs, investors, and industry experts.

Such elements should also be considered:

- **Cultural Sensitivity & Inclusivity:** Participants may come from diverse backgrounds and contexts. Encourage open discussions while respecting different perspectives on climate adaptation.
- **Tailoring Content:** Adapt the training materials to suit the specific knowledge level and expertise of the participants and their contexts in their countries.



5. Agenda & Schedule

The proposed timeline and each session duration with their respective topics can be found below. You can find the detailed agenda and the running orders in the [Exercises and Materials](#) folder.

General remarks before the In-Person workshop

- Send invitations and reminders to participants;
- Share the agenda and logistical details with participants;
- Give specific recommendations regarding accommodation, transfers, meals, and travel arrangements; organise and coordinate something, if required;
- Decide if you want to organise a dinner for the whole group or not;
- You can find all background information and contents in the Exercise & Material folder.

Day 1, Add Date – Exploring the Focus Topic

Time	Activity / Topics	Place
9:00	Welcoming remarks Introduction to the agenda Formal opening of the meeting, followed by an introduction to the program and the specific goals and outcomes of the day. Joint reflection on the key findings of the kick-off meetings and report from the kick-off in the different countries. Opportunity for participants to update each other on important progress and events since the last meeting.	Plenary
9:30	Check in and SMEs introduction	Plenary
10:30	Coffee Break	
11:00	Plenary Session: Climate Change Adaptation – global discussions – local consequences <ul style="list-style-type: none"> - Introduction of the concept of cc adaptation from a scientific perspective - Introduction to the international and national political discussions and the role of the private sector - Climate Change Adaptation context for SMEs <i>Laying the groundwork for the following work in small groups</i>	Plenary
12:00	Individual preparation of the working phase by the SMEs SMEs prepare	Breakout rooms



	<ul style="list-style-type: none"> 1 poster presenting the current and future climate change impacts in their region, their business case, and how their solutions contribute to the adaptation and resilience of their clients. 	
13:00	Lunch Break	
14:00	Peer discussions: local impacts of climate change SMEs meet in 4 groups (4-5 companies per group). Each company presents the local climate change impacts that can be seen/are expected in their respective regions, how their clients are affected, how their business is part of the solution, and what the challenges are. Each SME receives feedback from peers in the group & posters are jointly refined / further developed. <ul style="list-style-type: none"> Coffee is served during the session 	Breakout rooms
16:30	Plenary session: Joint discussion on new insights and open questions <ul style="list-style-type: none"> Closing of day 1 	Plenary
19:30	Joint dinner	

Day 2, Add Date – Adaptation SMEs – Being Part of the Climate Solution

Time	Activity / Topics	Place
9:00	Welcoming remarks & introduction to the agenda	Plenary
9:30	Plenary session: Adaptation SMEs – exploring the concept & related opportunities <ul style="list-style-type: none"> “Adaptation SME” definitions and some examples Example & Opportunities linked to being an Adaptation SME Questions related to the concept 	Plenary
10:30	Coffee Break and Dialogue Walk	
11:20	SME Working phase <ul style="list-style-type: none"> SME representatives develop a concrete Action Plan for how they want to further develop/sharpen their profile as an “Adaptation SME” during the PrivABoo, describing what opportunities could arise from this for the success of their business and its adaptation impact. They also describe potential challenges in implementing this idea and how the challenges could be met. 	Breakout Rooms



13:00	Lunch Break	
14:00	Group Works – Peer Feedback SMEs meet in their peer groups. Each company presents its Action Plan and receives additional input/ideas from the group concerning the following aspects: <ul style="list-style-type: none">- Innovation- Impact- Partnerships- Next steps	Breakout Rooms
15:30	Coffee Break and Gallery Walk <i>The SMEs' posters are exhibited in the plenary, and the participants can look at the results of other SMEs.</i>	
16:15	Reflection on the key concepts of the day	Plenary
16:50	Bilateral meetings between SMEs and the team	Plenary
19:30	Joint dinner	



6. Classroom Guidelines

Establish Ground Rules for a Collaborative Learning Environment

To create a productive and inclusive learning space, it is essential to establish ground rules at the beginning of the training. These rules should be agreed upon by participants to ensure a respectful and engaging environment. Some suggested ground rules include:

- Listen actively and respectfully to others.
- Encourage open and honest discussions.
- Be mindful of speaking time to allow everyone to contribute.
- Maintain confidentiality where necessary to create a safe space.
- Keep mobile phones on silent and minimize distractions.
- Approach disagreements with curiosity rather than conflict.

Trainers should facilitate a discussion with participants to co-create and document these ground rules, making sure they are visible throughout the training.

Encourage Active Participation, Peer Learning, and Respect for Diverse Perspectives

A successful training session relies on active engagement from all participants. To foster this, trainers should:

- Use a variety of interactive techniques such as group discussions, role-playing, and hands-on exercises.
- Encourage participants to share their experiences, insights, and perspectives.
- **Promote peer learning** by fostering collaboration and knowledge-sharing among participants.
- Create an inclusive atmosphere by ensuring that all voices are heard and valued.
- Respect different learning styles by balancing lectures with participatory activities.
- Provide opportunities for reflection and peer feedback.

Peer learning plays a crucial role in reinforcing concepts and enhancing practical understanding. By exchanging insights and best practices, participants can collectively strengthen their adaptation impact strategies.

Use Visual Aids and Storytelling for Effective Communication

Visual aids and storytelling techniques can enhance understanding and retention of key concepts. Trainers should:

- Use slides, infographics, and videos to present complex ideas in a clear and engaging way.
- Incorporate real-life case studies and success stories to illustrate key points.
- Encourage participants to share their own experiences through structured storytelling exercises.
- Utilize charts, diagrams, and other visual elements to simplify data-heavy content.
- Adapt visual and storytelling techniques to suit the audience's needs and preferences.

By integrating these methods, trainers can make the learning experience more engaging, relatable, and impactful.



7. Exercises, Activities, Case Studies & Assignments Overview

In this section of the manual, the facilitators can find all the materials and exercises that participants should prepare before the sessions, during the in-person meeting, and after the workshop.

Preparation Exercises and Materials

7.1 In-Person Workshop Preparation

In order to be able to make the most out of the in-person meeting, the organizers should send recommended literature to the participants to enrich the discussion.

7.2 During the In-Person Workshop

Every exercise comes with its respective indications.

1. Adaptation Narrative.
2. Action Plan.
 - 2.1. Adaptation Canvas.
 - 2.2. Company Action Plan Template.

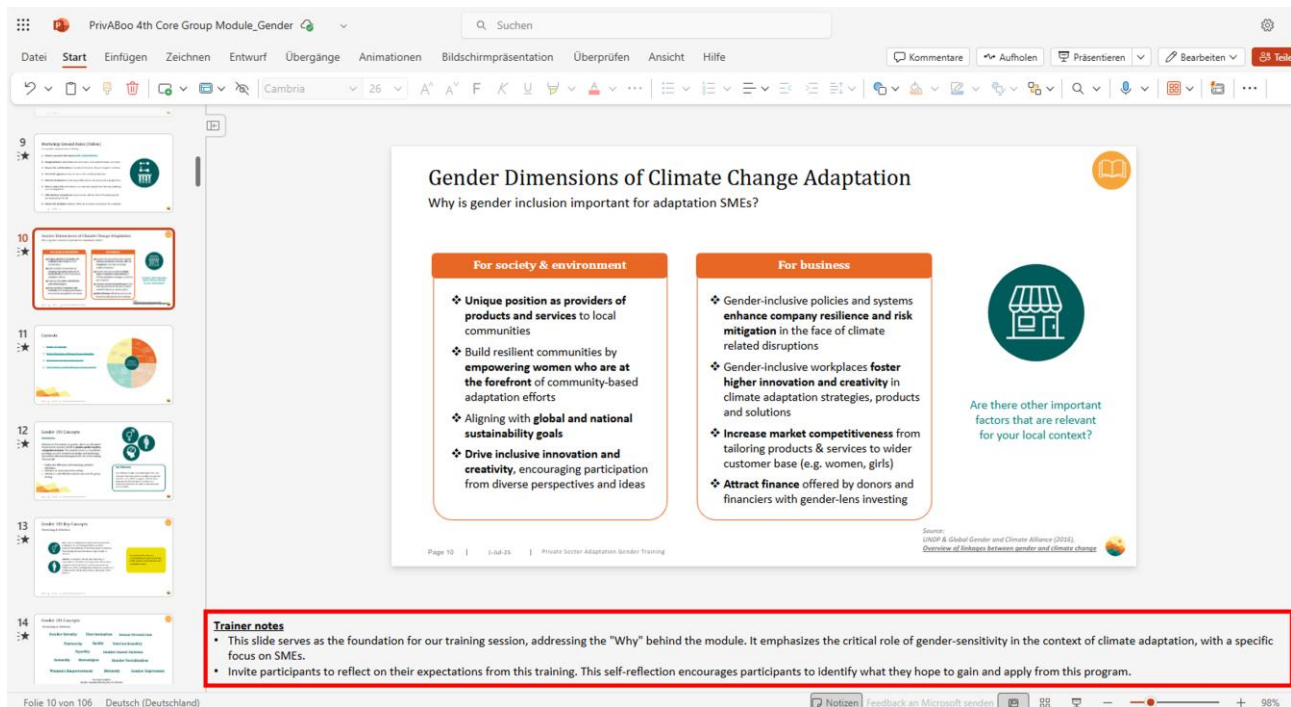
7.4 At the end of the In-Person Workshop

Feedback questionnaire.

8. Presentation Notes and Running Orders for Trainers

8.1 Background slides

The Background Slides for the In-Person Meeting are designed to provide trainers with a structured approach to providing content efficiently. For the sessions, the slides contain notes and instructions, as shown below in the red frame, providing essential guidance for facilitators on developing both short and long training sessions, ensuring key messages are conveyed clearly, and incorporating interactive elements to enhance participant engagement. Trainers should use the slides as a foundation but adapt them as needed to fit the audience's level of expertise and engagement style.



The screenshot shows a presentation slide titled "Gender Dimensions of Climate Change Adaptation" with the subtitle "Why is gender inclusion important for adaptation SMEs?". The slide content is organized into two columns: "For society & environment" and "For business".

For society & environment:

- ❖ Unique position as providers of products and services to local communities
- ❖ Build resilient communities by empowering women who are at the forefront of community-based adaptation efforts
- ❖ Aligning with global and national sustainability goals
- ❖ Drive inclusive innovation and creativity, encouraging participation from diverse perspectives and ideas

For business:

- ❖ Gender-inclusive policies and systems enhance company resilience and risk mitigation in the face of climate related disruptions
- ❖ Gender-inclusive workplaces foster higher innovation and creativity in climate adaptation strategies, products and solutions
- ❖ Increase market competitiveness from tailoring products & services to wider customer base (e.g. women, girls)
- ❖ Attract finance offered by donors and financiers with gender-lens investing

On the right side of the slide, there is a circular icon of a storefront and the text: "Are there other important factors that are relevant for your local context?".

Trainer notes

- This slide serves as the foundation for our training session, addressing the "Why" behind the module. It emphasizes the critical role of gender-sensitivity in the context of climate adaptation, with a specific focus on SMEs.
- Invite participants to reflect on their expectations from this training. This self-reflection encourages participants to identify what they hope to gain and apply from this program.

8.2 Facilitator Running Orders

For the In-Person Workshop, facilitators will use Running Orders as a structured guide to effectively conduct the workshop. These Running Orders serve as a key tool, outlining the flow of activities, required materials, and exercises to be executed at specific times. They also include key remarks, messages, and essential information that participants need to develop throughout the workshop, ensuring a smooth and impactful learning experience. These can be found in the Exercises and Materials folder that comes with this Manual.

9. Evaluation & Follow-Up

Evaluation is a crucial component of the training process as it allows both trainers and participants to assess the effectiveness of the workshop, identify key takeaways, and highlight areas for improvement. Gathering feedback helps ensure that learning objectives are met and provides insights for refining future training sessions. Additionally, evaluation fosters a culture of continuous learning by encouraging participants to reflect on their progress and how they can apply the acquired knowledge and skills in their professional contexts.

For this purpose, 2 key activities are defined.

- **Review and recap session:** at the end of the workshop where participants should discuss personal key learnings and findings from the workshop, and what next steps they can implement to establish or further develop the impact measurement and communication at the level of their companies.
- **Feedback Questionnaire:** Collect insights on workshop effectiveness.

10. Other recommended Handouts & Resources

Facilitators can send the following materials to participants before online sessions to help them familiarize themselves with key concepts that will be covered during the workshop. These materials not only support participants in building a foundational understanding but also provide facilitators with deeper insights, enhancing their ability to guide discussions and address questions effectively.

- Adaptation Community. (2020, December 9). *Adaptation in the NDCs - Adaptation Community*. Adaptation Community. <https://www.adaptationcommunity.net/nap-ndc/adaptation-in-the-ndcs/>
- Agrica. (2025). *Agrica*. Agrica.de. <https://agrica.de/>
- ANDE. (2022). *August 2022 Measuring the Impact of Climate Small and Growing Businesses A walk-through of impact tools, frameworks, and best practices*. https://climatecollective.net/wp-content/uploads/2022/08/ANDE_Climate_Metrics_Guide-ENG.pdf
- ASAP. (2021, August 20). *Home - ASAP*. ASAP. <https://climateasap.org/>
- Climate Change Knowledge Portal. (2024). *World Bank Climate Change Knowledge Portal*. Worldbank.org. <https://climateknowledgeportal.worldbank.org/>
- Global Center on Adaptation. (2021, January 17). *5 companies protecting the most vulnerable against climate change*. Global Center on Adaptation. <https://gca.org/5-companies-protecting-the-most-vulnerable-against-climate-change/>
- Hammill, A., Dazé, A., & Dekens, J. (2019, December 5). *The National Adaptation Plan (NAP) Process: Frequently Asked Questions*. NAP Global Network. <https://napglobalnetwork.org/2019/12/the-national-adaptation-plan-nap-process-frequently-asked-questions/>
- Impact-Amplifier-OS. (2023). *An Introduction to Impact Investment*. Impact-Amplifier-OS. <https://www.impactos.impactamplifier.co.za/>
- Intergovernmental Panel on Climate Change (IPCC). (2022). *Climate Change 2022: Impacts, Adaptation and Vulnerability*. IPCC Sixth Assessment Report; IPCC. <https://www.ipcc.ch/report/ar6/wg2/>
- KCIC Consulting. (2024, April 14). *Sustainability Advisory*. KCIC Consulting. <https://kcicconsulting.com/portfolio/sustainability-advisory/>
- NAP Central. (2024). *NAP Central*. Napcentral.org. <https://napcentral.org/>
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- Tall, A. (2021). *Enabling Private Investment in Climate Adaptation and Resilience: Current Status, Barriers to Investment and Blueprint for Action*. *Openknowledge.worldbank.org*. <https://openknowledge.worldbank.org/entities/publication/6219bf23-87e1-5f30-aaf9-30e0cd793ce3>
- Trabacchi, C., Koh, J., Shi, S., Guelig, T., & Cabrera, M. (2020). *Adaptation Solutions Taxonomy*. https://lightsmithgp.com/wp-content/uploads/2020/09/asap-adaptation-solutions-taxonomy_july-28-2020_final.pdf
- UN Environment Programme. (2024). *Adaptation Gap Report 2024*. UNEP - UN Environment Programme. <https://www.unep.org/resources/adaptation-gap-report-2024>
- UNFCCC. (2019). *Nationally Determined Contributions (NDCs) | UNFCCC*. UNFCCC. <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs>
- UNFCCC. (2025). *Nationally Determined Contributions Registry*. Unfccc.int. <https://unfccc.int/NDCREG>
- United Nations Climate Change. (2024a). *Global goal on adaptation*. Unfccc.int. <https://unfccc.int/topics/adaptation-and-resilience/workstreams/gga>



- United Nations Climate Change. (2024b). *National Adaptation Plans*. Unfccc.int. <https://unfccc.int/national-adaptation-plans>
- WMO. (2024). *State of the Climate in Africa*. World Meteorological Organization. <https://wmo.int/publication-series/state-of-climate-africa>

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PrivABoo Module 1

Introduction to climate change adaptation and the definition of “Adaptation SMEs” Training Manual



Implemented by:



Introduction: Note to trainers

- Climate adaptation is a relatively new concept. The term 'adaptation SME' has been specifically designed within the PrivABoo program to define growth stage companies offering products and services that help clients adapt to the effects of climate change.
- Understanding the adaptation narrative of the business will help businesses better define their impact and refine their business models around this narrative.



Toolkit Introduction: Objective & Target Group

The training aims to equip adaptation-relevant SMEs with a solid understanding of climate change adaptation, enable them to position their businesses as Adaptation SMEs, and support them in identifying opportunities to strengthen their business models and improve their access to climate adaptation finance.

The Module on Introduction to Climate Adaptation as a Business Case and peer-exchange will focus on:

- Building participants' understanding of the theoretical foundations of climate change adaptation and its specific implications for their region and business models.
- Introducing the concept of an “Adaptation SME” and enabling participants to position and describe their own business cases within this framework.
- Supporting SMEs in developing a concrete plan to strengthen their positioning as Adaptation SMEs and identify opportunities for business development.
- Providing space for initial in-person exchange between SMEs and the GIZ team, including feedback collection and orientation on the next steps in the learning journey.



Introduction: Topics

Day 1 – Climate Change Adaptation: Global discussion – local consequences

Objective: SMEs will get familiar with the scientific insights on climate change adaptation, as well as significant national and international political processes, plans, commitments, and agreements. The training will put the spotlight on private sector actors, and SMEs in particular, and their key role in the achievement of local, national, regional, and international priorities for climate change adaptation.

Day 2 – Understanding the Role of SMEs in Climate Change Adaptation

Objective: SMEs will understand how they can contribute to building climate resilience, meet adaptation needs, and unlock business opportunities that support sustainable development. Participating SMEs will have the opportunity to work on various aspects of their own business models, identify improvement potential, and develop concrete ideas and plans to enhance their adaptation impact and profile.

OUTPUTS

Adaptation
Narrative

Action Plan



Introduction to Climate Change Adaptation as a Business Case

What do we want to achieve?

- Participants are familiar with the theoretical basis for climate change adaptation and know the concrete impacts and implications for their region and their business model.
- Participants are familiar with the concept of an “Adaptation SME” and can situate and describe their own business case accordingly.
- The SMEs have developed a concrete plan on how they will use the further PrivABoo process to raise their profiles as Adaptation SMEs and harness related opportunities for business development.
- The SMEs have had the opportunity to have a first in-person exchange with the GIZ team, provide feedback, and learn about the next steps of the PrivABoo learning process.



Introductions & Ice-breaker



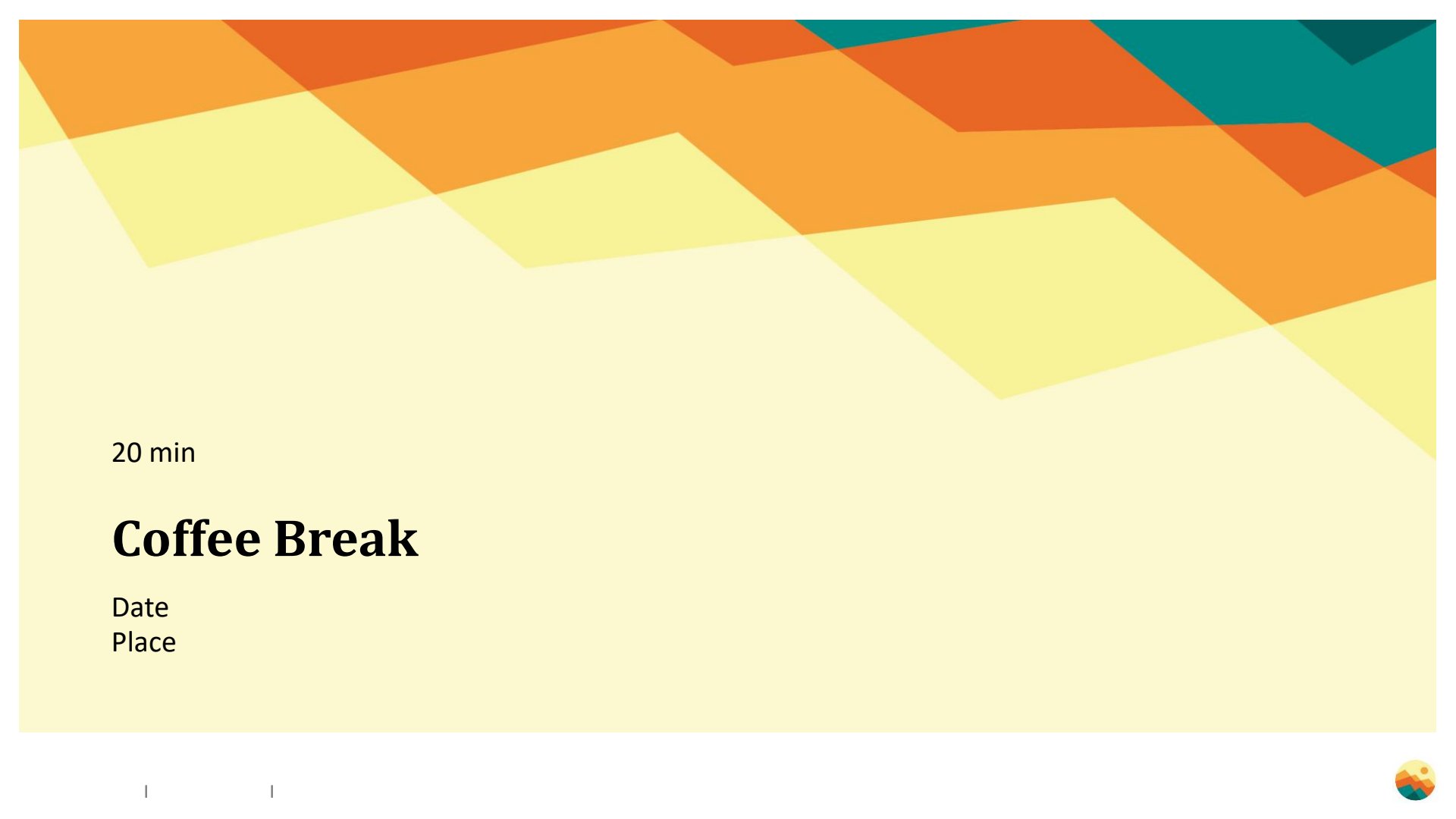
Introduction Round

**Tell us in
less than
1 minute!**



- What is your name?
- Country?
- What is the name of your business?
- Why is your business an “Adaptation SME”?





20 min

Coffee Break

Date

Place



What do you want to achieve over the next three days?

- Expectations for the workshop
- Your learning goals for this week
- Key questions you want to answer
- Specific challenges you want to solve



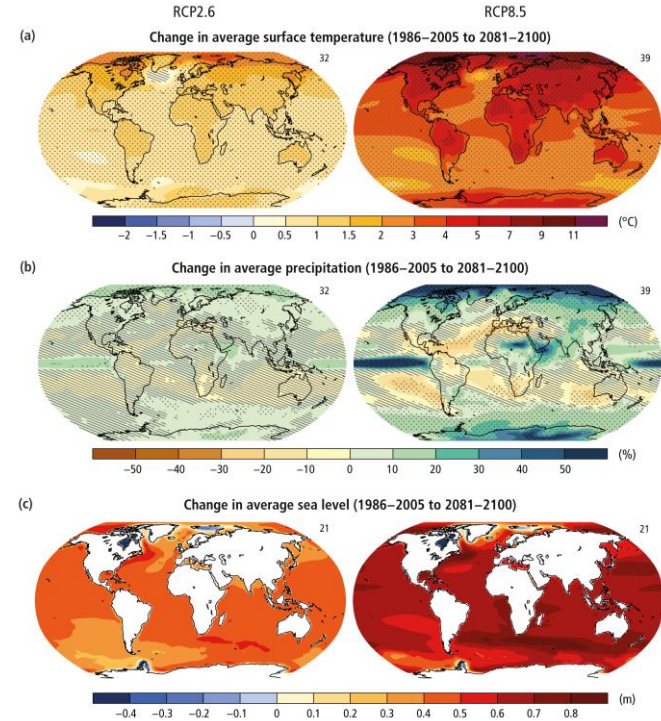
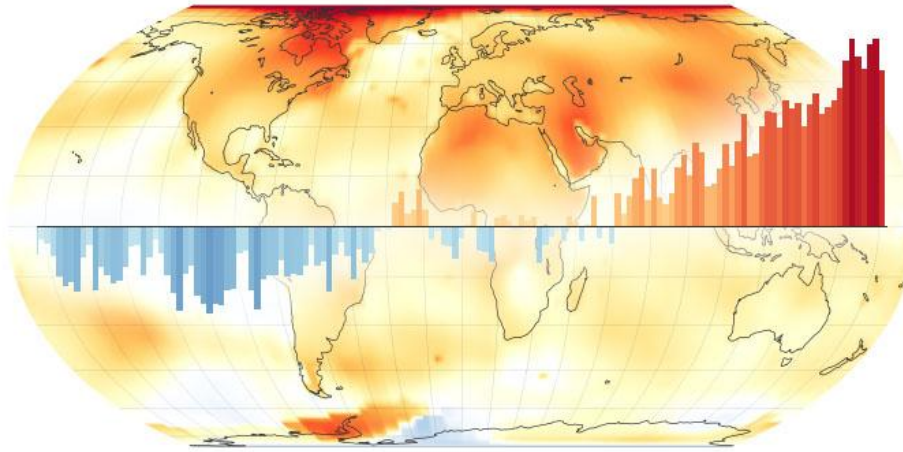


Introduction of the concept of Climate Change Adaptation from a scientific perspective

The science, the politics, and the private sector



Climate change: The science is clear



Climate change: The science is clear



Change in average temperature



Change in average precipitation



Change in average Sea level



Climate change: The science is clear

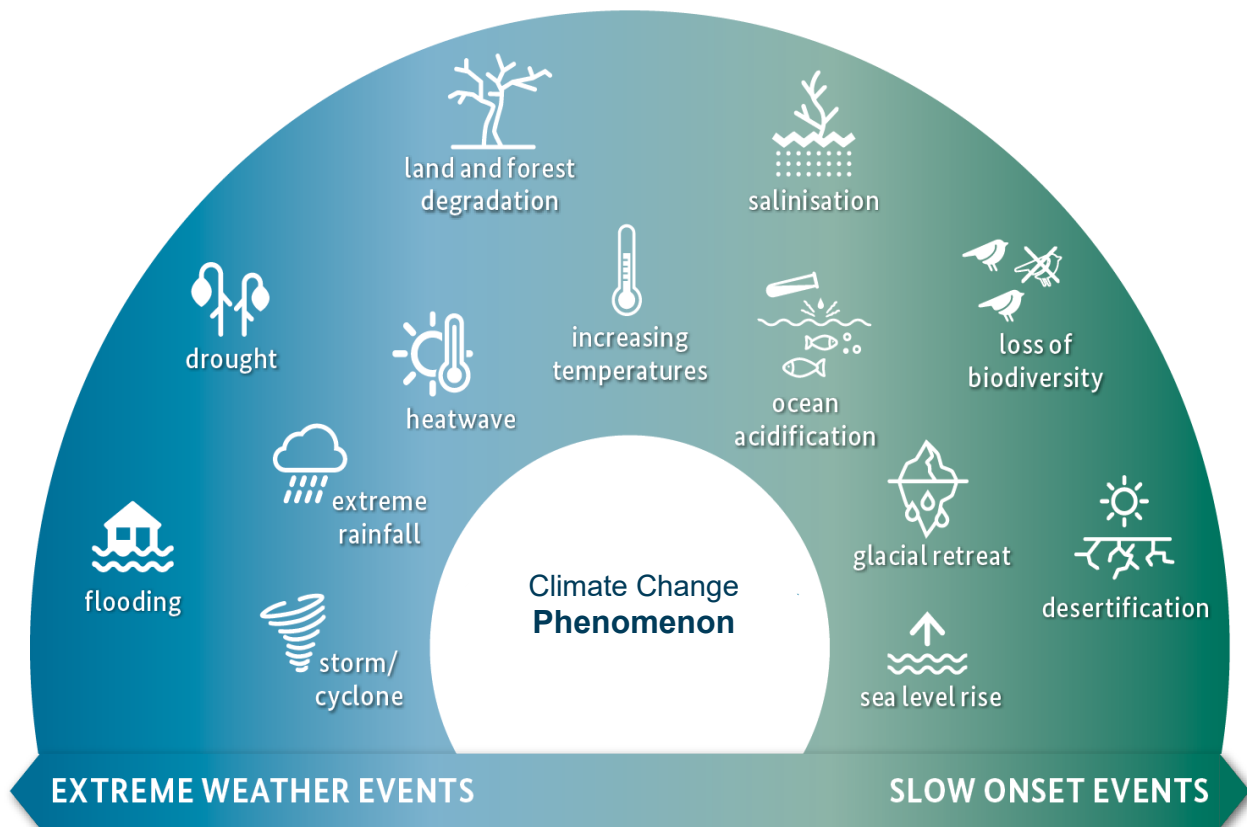


Floods in Nigeria:
Riverbank of Lokoja Oct 2022



Floods in Pakistan





Climate impacts and adaptation needs are **highly variable**

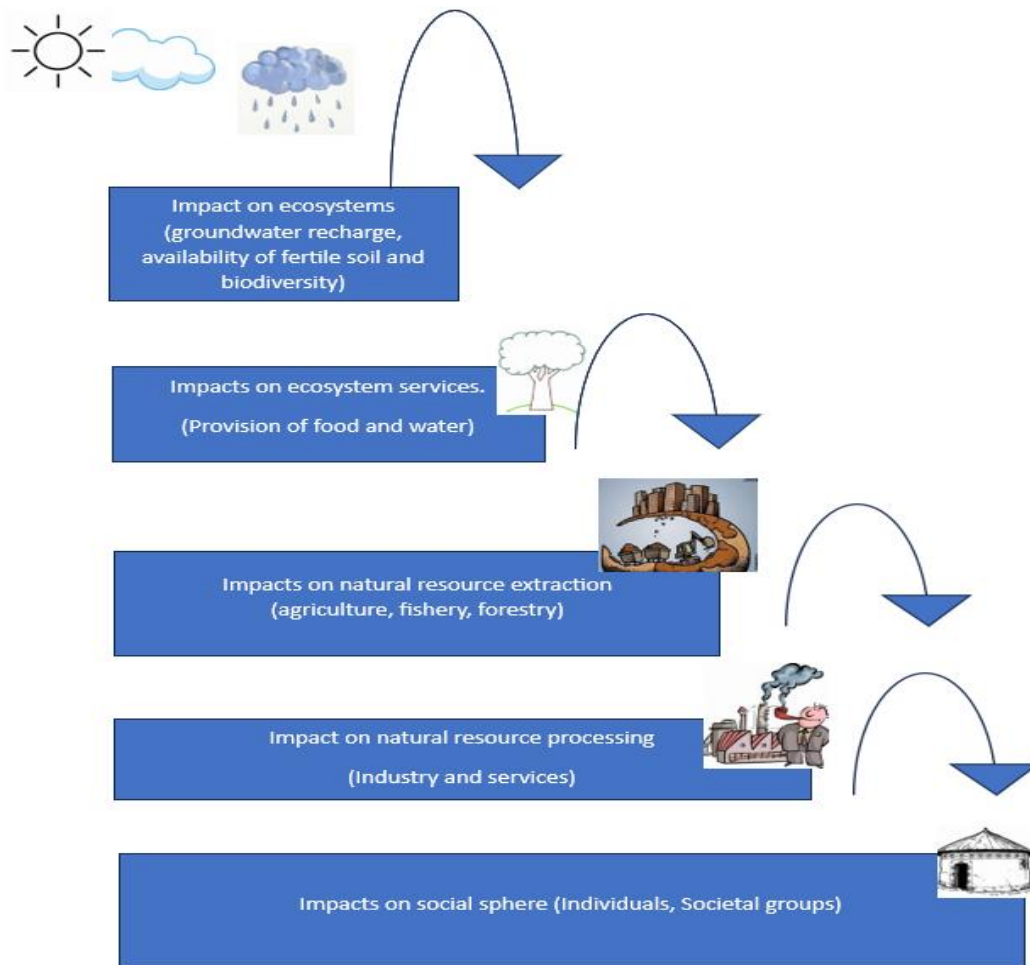
For your country's climate risk profile, Check the World Bank's Climate Change Knowledge Portal (for example)

Source: GIZ

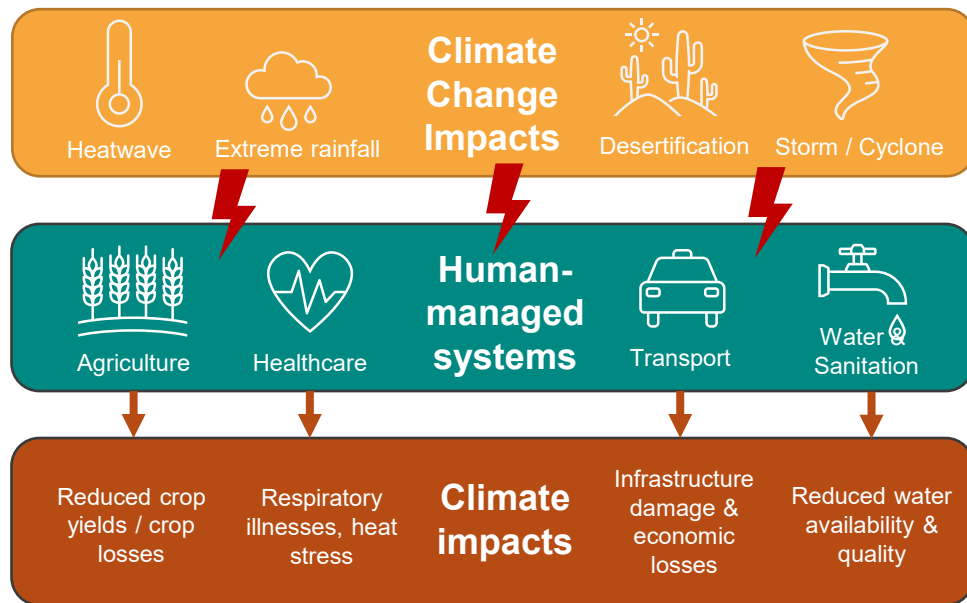


Climate change

Climate change impacts on the ecosystem services and natural resources directly affect people's livelihoods in developing countries.



Climate Change Impacts on Human Systems



... yet the majority of climate risk management and adaptation currently being planned and implemented are incremental

*“Adaptation refers to **adjustments in ecological, social, or economic systems** in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to **moderate potential damages or to benefit from opportunities associated with climate change**. In simple terms, countries and communities need to develop adaptation solutions and implement action to **respond to the impacts of climate change that are already happening, as well as prepare for future impacts**.” (UNFCCC)*

- Exposure
- Absorbing disturbances/shocks
- Sensitivity
- Coping capacity
- Resilience
- Maladaptation
- Susceptibility
- Vulnerability
- Capacity to adapt to stress/change



Adaptation to the risks of climate change (IPCC 2014)

Definition:

The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.



Definition:

The potential occurrence of a climate related physical event or trend or physical impact that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources..'



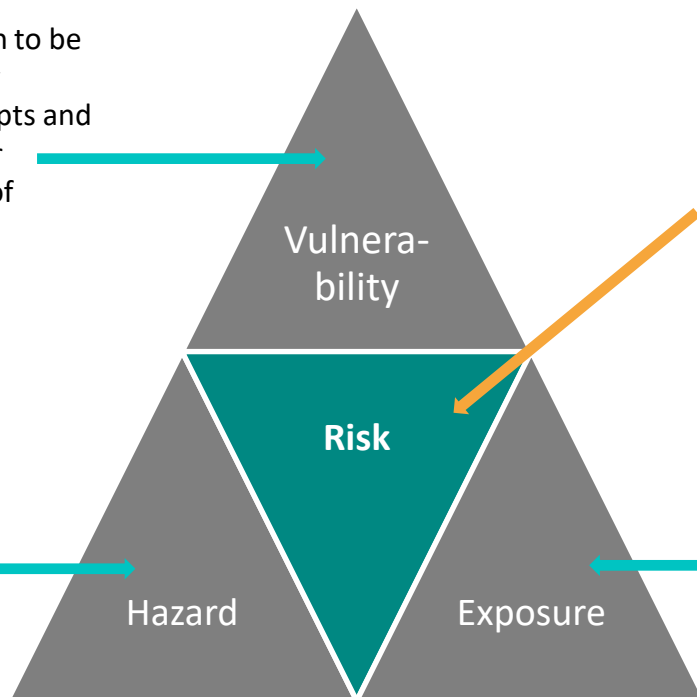
Definition:

The potential for consequences [= impacts] where something of value is at stake and where the outcome is uncertain.. Risk results from the interaction of vulnerability, exposure, and hazard.



Definition:

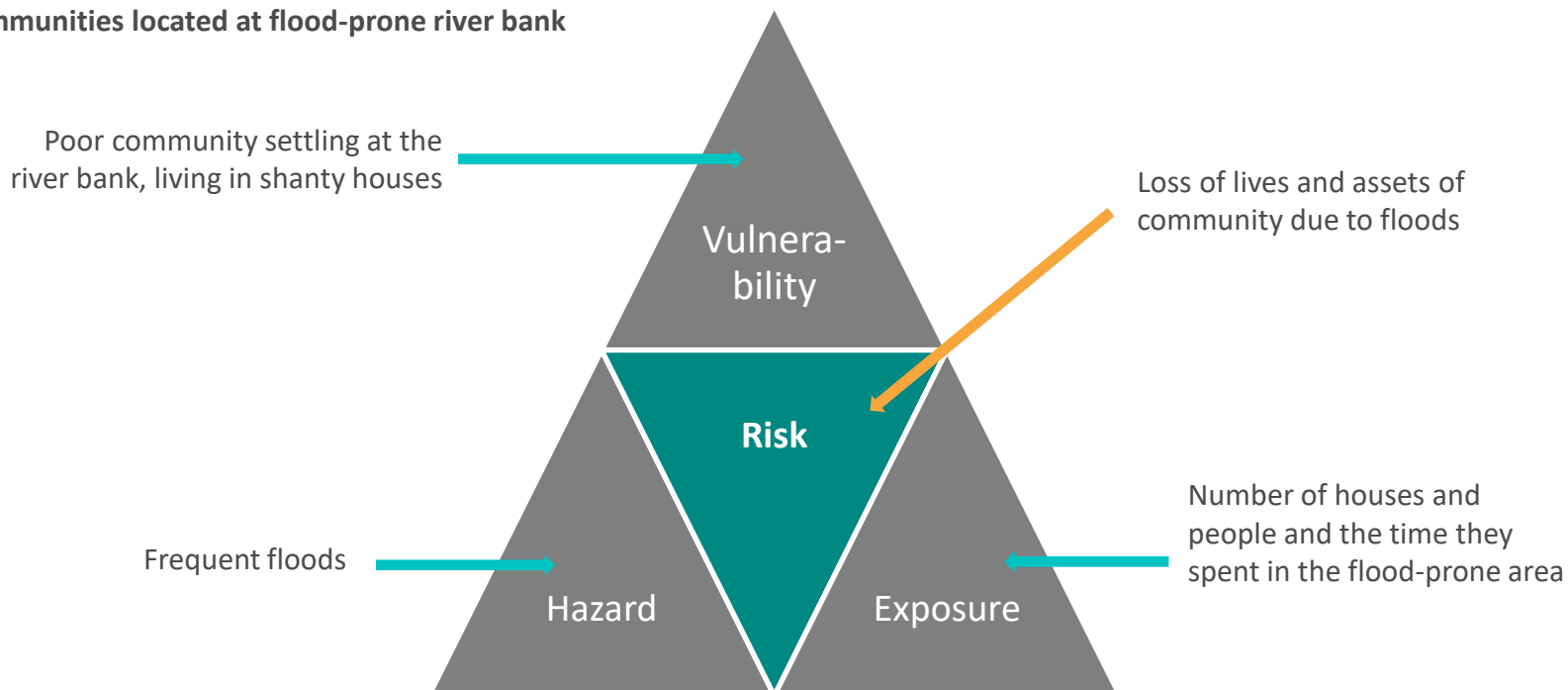
The presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected



Adaptation to the risks of climate change (IPCC 2014)

Example:

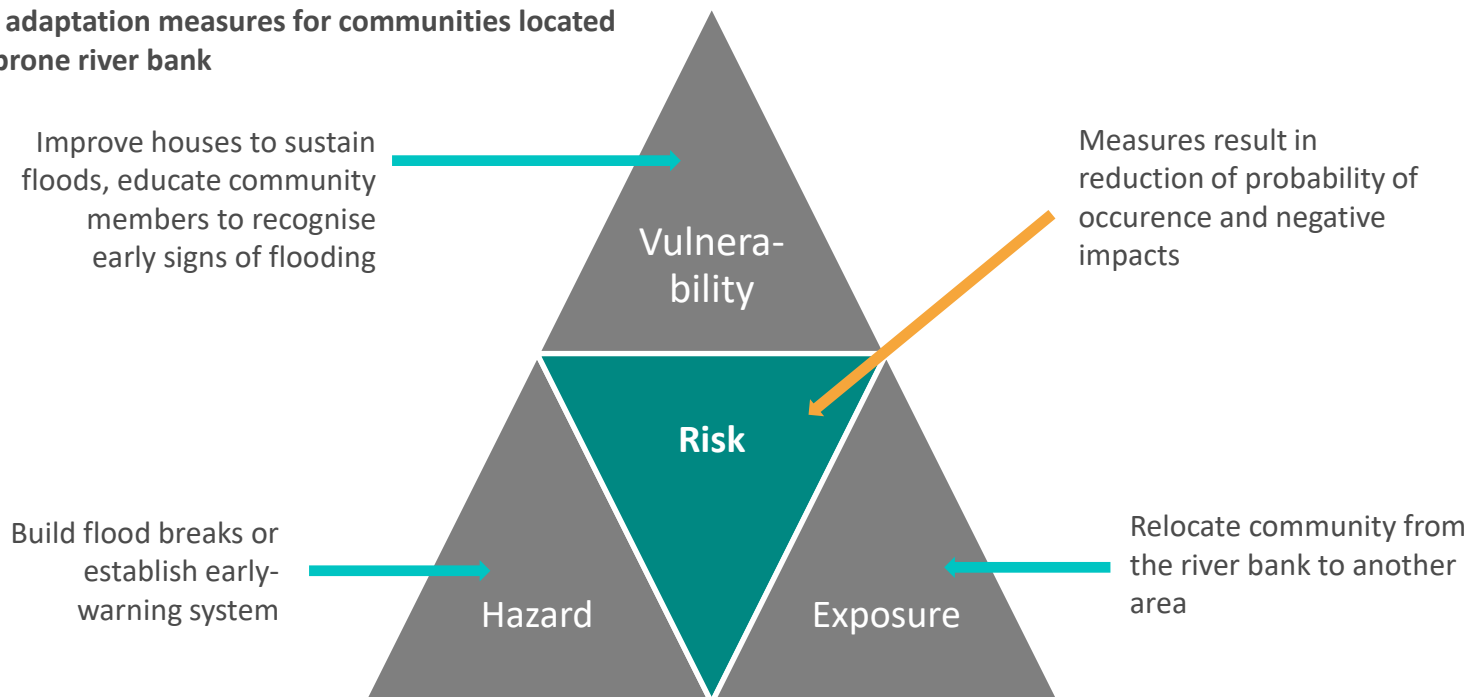
Communities located at flood-prone river bank



Adaptation to the risks of climate change (IPCC 2014)

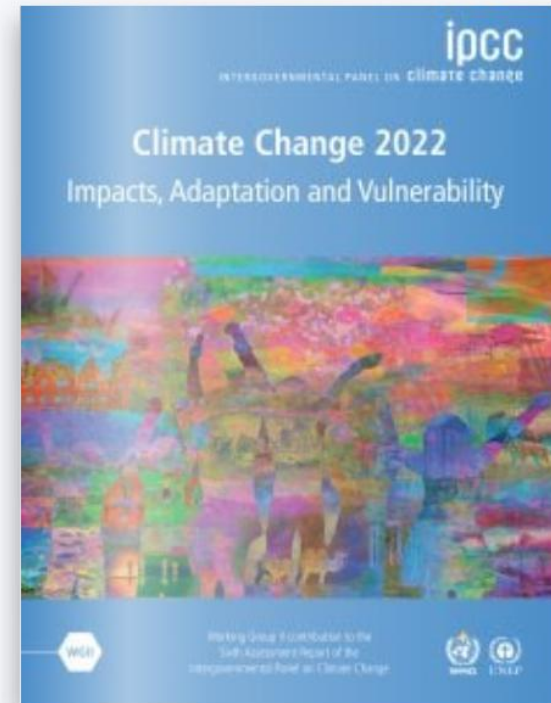
Example:

Potential adaptation measures for communities located at flood-prone river bank



Adaptation measures, enabling conditions, and climate-resilient development

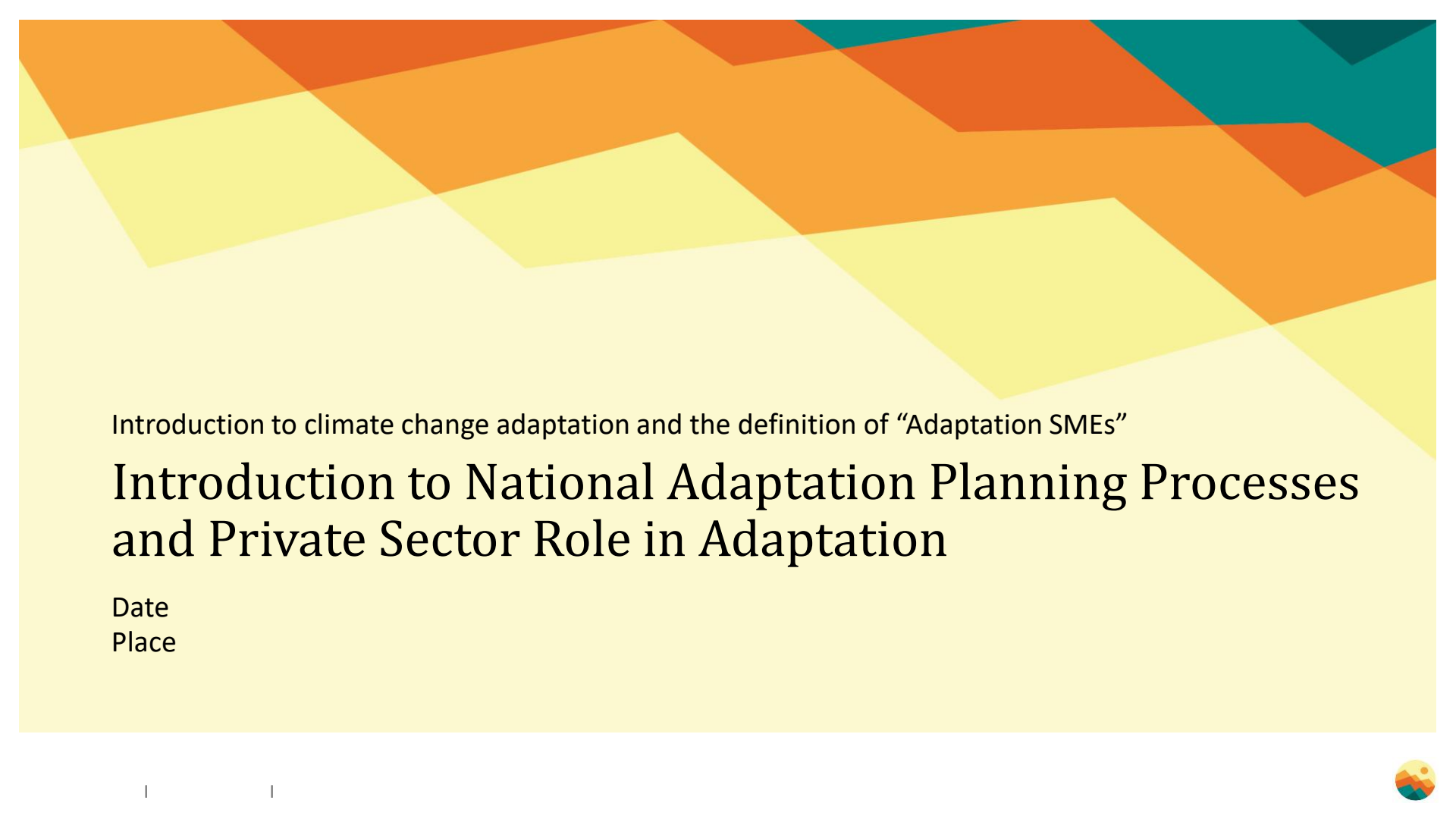
- There is progress, and awareness is increasing.
- Progress is uneven, gaps remain, and the feasibility of implementing adaptation options varies.
- Adaptation to water-related risks and impacts makes up the majority of documented adaptation actions.
- Adaptation can have many co-benefits.
- Enabling conditions are key for implementation, acceleration, and sustaining adaptation.
- Information and knowledge matter.
- With increasing global warming, adaptation options decrease, and loss and damage increase.



Discussion

1. What do climate change impacts and risks look like where you operate?
2. What key factors determine vulnerability, resilience, and coping capacity?
3. What are the main adaptation needs of your (potential) clients and customers?
4. What adaptation solutions are needed and what will it take to make them available, especially to those who need them most?





Introduction to climate change adaptation and the definition of “Adaptation SMEs”

Introduction to National Adaptation Planning Processes and Private Sector Role in Adaptation

Date

Place



Global Frameworks to address climate change



United Nations Framework Convention on Climate Change (UNFCCC) – 1992

- **General framework** with broad principles, general obligations, basic institutional arrangements, and an **intergovernmental process** for agreeing to specific actions over time
- **Objective:** “stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”

Paris Agreement (2015)

- Limit global warming to **well below 2°C**, pursue efforts to limit it to 1.5°C
- **All countries** obliged to take action
- Countries make individual pledges (**Nationally Determined Contributions, NDCs**) to communicate their targets
- Countries develop **National Adaptation Plans (NAPs)**

2030 Agenda for Sustainable Development (2015)

- “a shared blueprint for peace and prosperity for people and the planet, now and into the future”
- **17 Sustainable Development Goals (SDGs)** to guide action

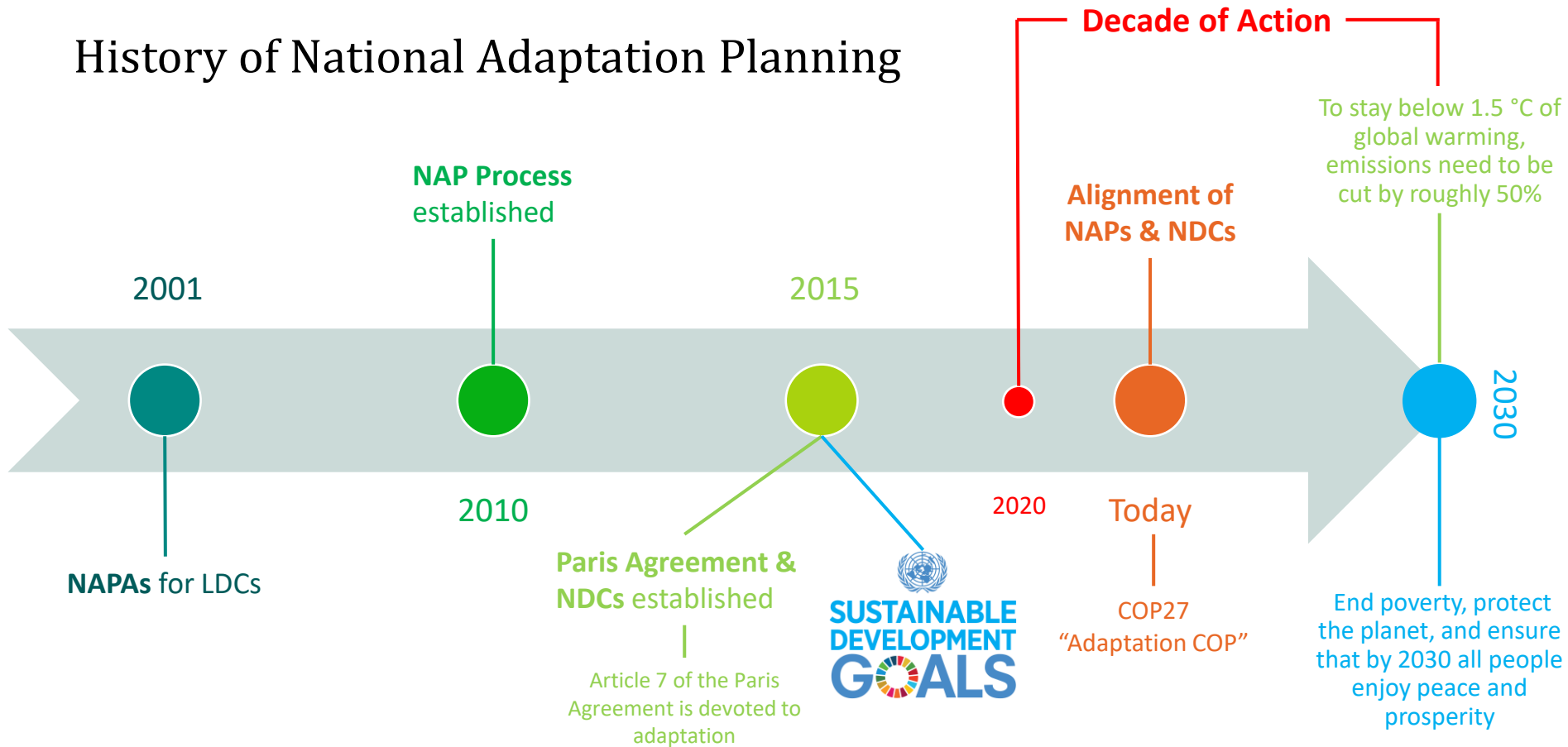


Why is this important?

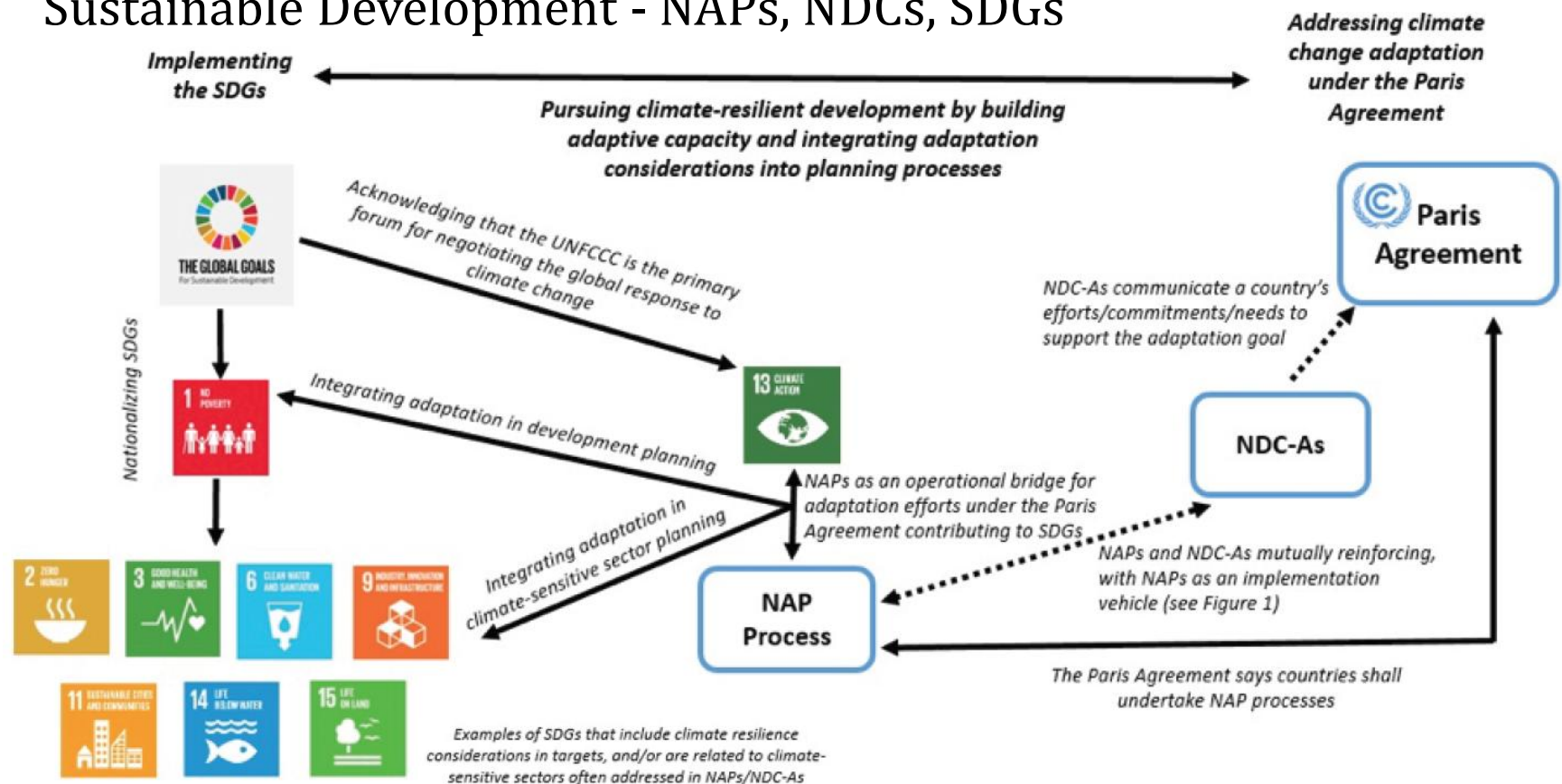
- ✓ What is the institutional and political framework for adaptation planning at the national level?
- ✓ **How are national policies, strategies and plans regarding climate action in your country relevant for your business? Can you give examples?**



History of National Adaptation Planning



Sustainable Development - NAPs, NDCs, SDGs

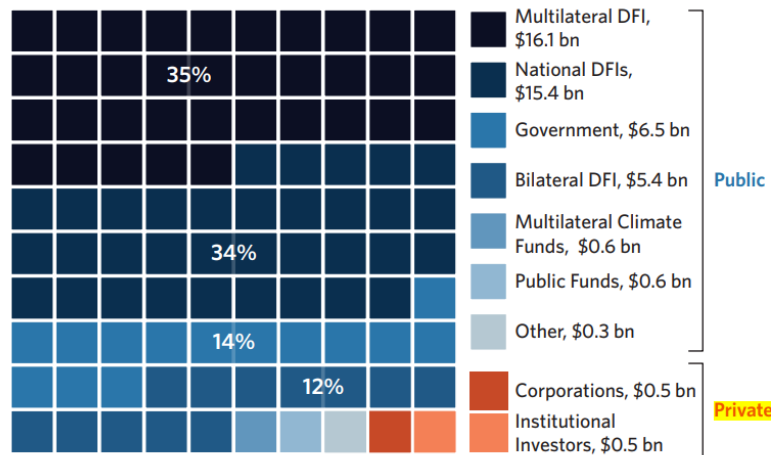


Private Sector Role in Adaptation



The challenge: The adaptation finance gap

Private sector investment in adaptation has remained minimal. Of the total US\$46 billion spent on adaptation in 2019–2020, **less than 2% came from private adaptation spending.**



Source: *Global Landscape of Climate Finance 2021*.

The adaptation market could be worth \$2 trillion per year by 2026, and the Global South stands to benefit from much of this.

Why?

- Even if mitigation efforts do manage to stabilise the climate, **humanity will have to live for a long time with some effects of climate change.**
- Climate adaptation, therefore, is essential — and the **private sector's first movers on the market will enjoy a distinct advantage.**

Climate risks will impact virtually every industry:

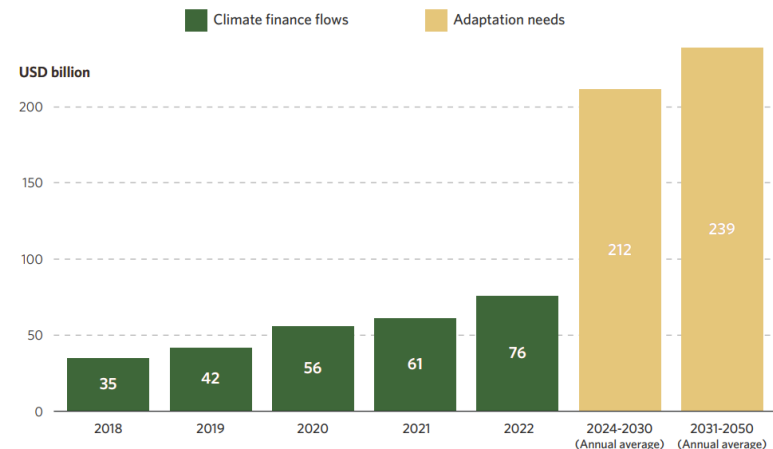
- **real estate assets** will be damaged;
- **agricultural productivity** will decline;
- **financial institutions** will have to grapple with higher risk and even access to the internet could be in danger.



The challenge: The adaptation finance gap

- Adaptation finance **more than doubled** between 2018 and 2022. However, flows continue to fall short of estimated needs. Adaptation finance grew from **USD 35 billion in 2018 to USD 76 billion by 2022**, with a CAGR of **21%**. This compares to a CAGR of 20% for mitigation over the same period.
- At least **USD 6.3 trillion** in annual climate finance will be needed from 2024 through to 2030 to avoid the worst impacts of climate change. The gap to the lowest needs scenario—**currently USD 4.4 trillion**— is narrowing with stronger policy action and increased investment, but not quickly enough.
- Private actors** play an increasingly important role in delivering goods and services for adaptation and resilience, as well as in climate-proofing supply chains. However, **limited data on private adaptation** finance has, to date, obscured any progress on addressing climate vulnerabilities.

Figure 2.3: Global adaptation finance flows vs. needs



Note: Measuring the adaptation gap is challenging both conceptually and quantitatively. These figures are likely underestimates as they only account for EMDEs' needs, and many adaptation investment needs cannot be accurately measured. From 2018 to 2022, EMDEs accounted for 92% of adaptation finance.

Source: Global Landscape of Climate Finance 2024.



Climate Adaptation: The \$2 trillion market the private sector cannot ignore

The adaptation market could be worth \$2 trillion per year by 2026, and the Global South stands to benefit from much of this.

Why?

- Even if mitigation efforts do manage to stabilise the climate, humanity will have to live for a long time with some effects of climate change.
- Climate adaptation, therefore, is essential — and the private sector's first movers on the market will enjoy a distinct advantage.

Sectoral **Risks** & **Opportunities**

Climate risks will impact virtually every industry: real estate assets will be damaged; agricultural productivity will decline; financial institutions will have to grapple with higher risk, and even access to the internet could be in danger.



Why Businesses Should Focus on Adaptation

Climate change impacts businesses and their value chains across geographies; this has implications for **financial performance**



By adapting to and building resilience to climate change, businesses can mitigate risks to the operations and value chains and **avoid economic losses** due to climate impacts

Climate change adaptation presents **opportunities** for business growth, innovation, efficiency, and sustainability



Businesses can capitalize on opportunities by investing in climate change adaptation solutions, thereby gaining from **increased revenue and cost savings**

As climate change is a systemic issue with cascading impacts, global adaptation efforts require **multi-stakeholder collaboration** to succeed

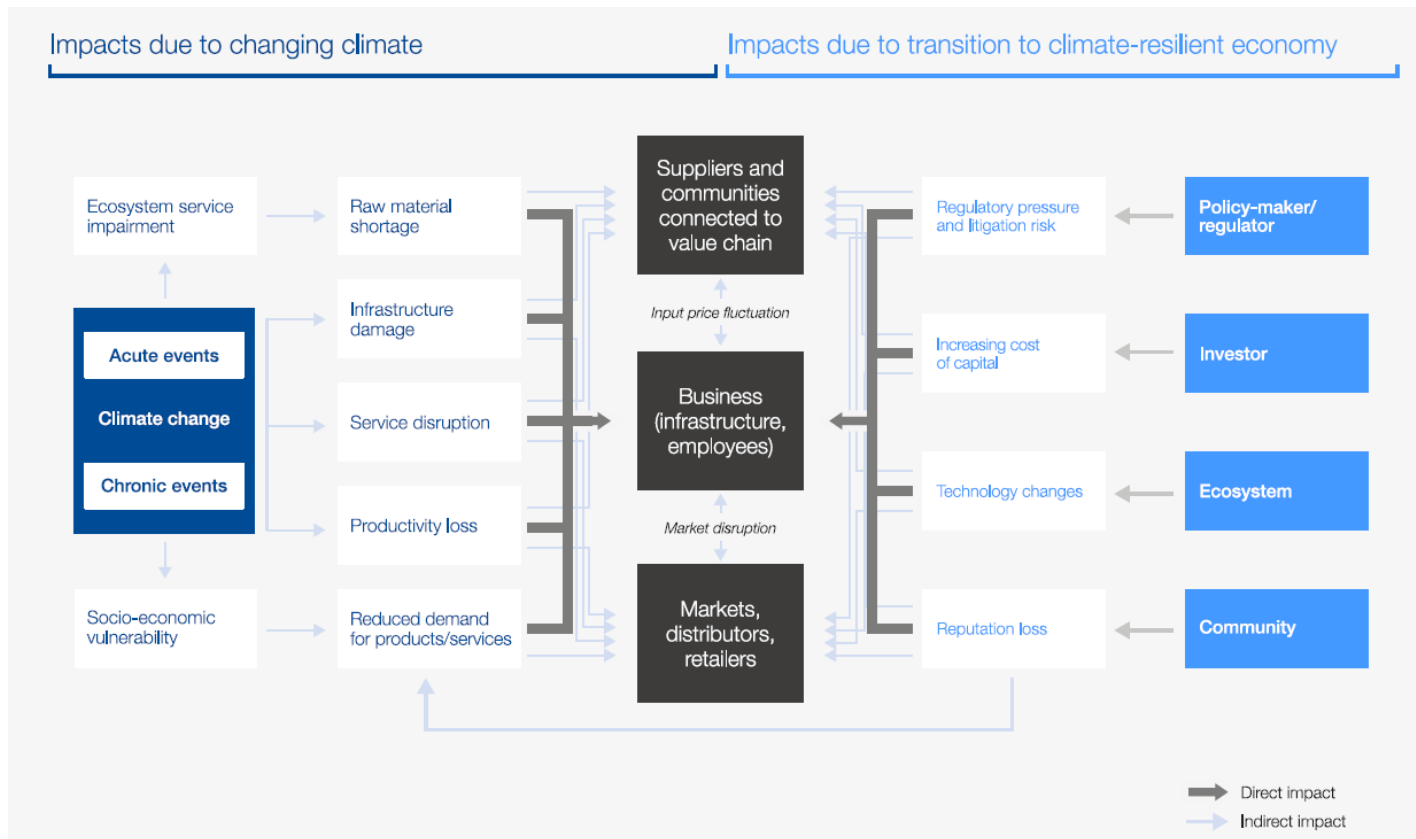


By complementing government and public sector efforts, businesses can **contribute to protecting communities and ecosystems** and gain from mutually beneficial outcomes

By investing in adaptation, companies can lead and help galvanize a system response, while protecting their business



Climate Change Impacts on businesses



What Role does the Private Sector play in Adaptation?

Private sector investment is **widely recognized to supplement** public resources and essential to close the adaptation finance gap.

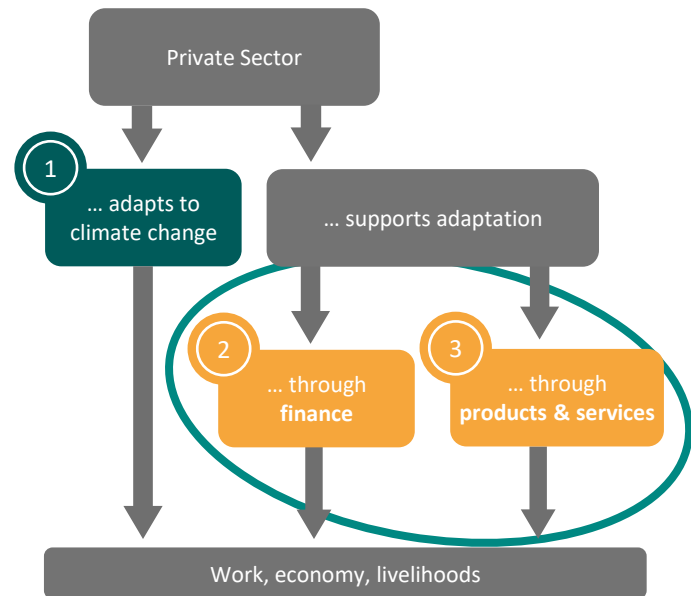
The private sector investment in adaptation fall into three broad categories:

- 1) investing in their own supply chain resilience,
- 2) investing in the adaptation of others
- 3) providing climate adaptation goods and services,

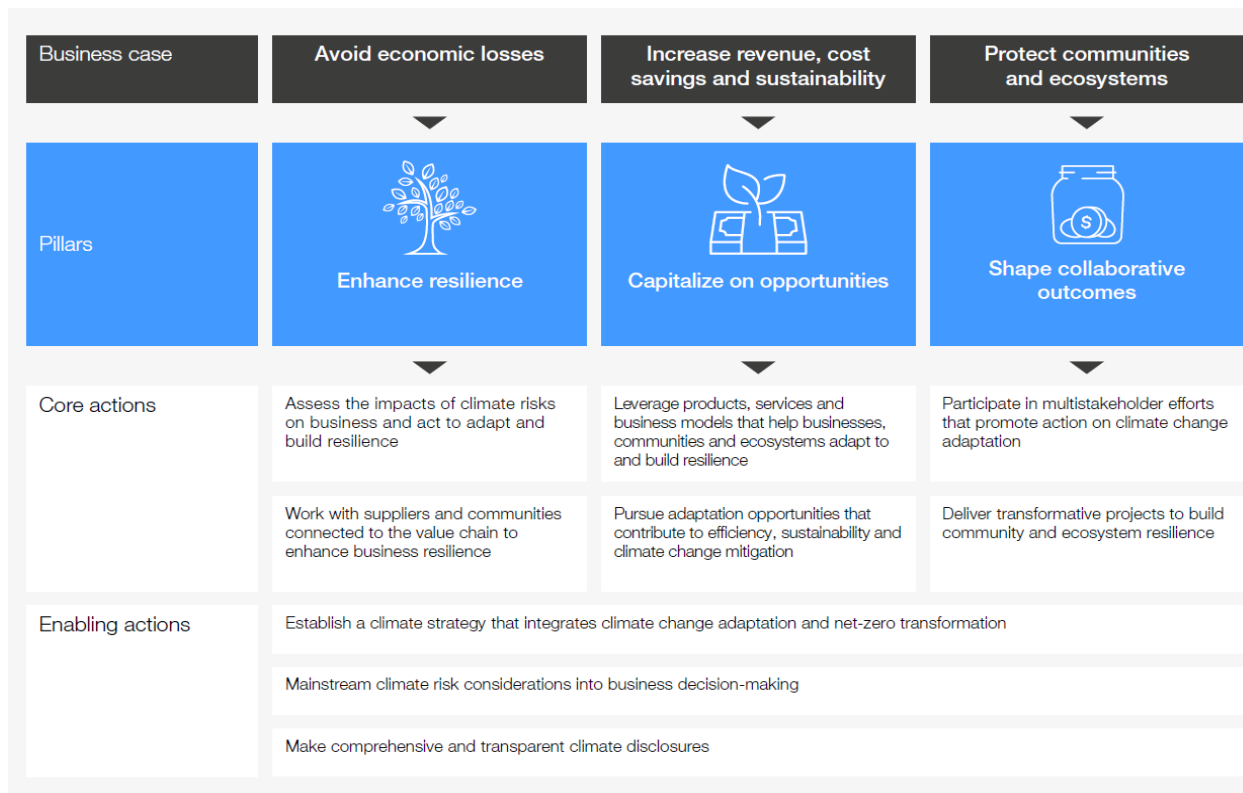
Why?

New revenue streams, gain competitive advantages, and diversification of risk in portfolios.

Functions of the private sector in adaptation
(adapted from Byiers and Rosengren 2012)



Framework for business action on adaptation



The role of the Private Sector through **financing**

Mobilize investments into adaptation solutions, to close the adaptation finance gap and **accelerate existing solutions** to respond to current and oncoming climate risks.

Private adaptation finance challenges: adaptation business models **can often be unidentified** by capital providers due to both insufficient communication and awareness of the adaptation relevance from solution providers.

- Difficulty to quantify the current levels of private investment in adaptation.
- Mobilizing more private sector investment in adaptation.

Entity Type		Returns Spectrum
Real sector (corporations, private companies of all sizes)		Market-rate returns
Commercial banks		
Institutional investors (e.g. pension funds, insurance companies, sovereign wealth funds, other asset managers)		
Bilateral, multilateral, national development banks (private sector arms)		Quasi- or blended returns
Impact Investors	Impact investors (seeking impacts & return)	
	Impact investors (not seeking market returns)	
Family offices/Philanthropies/ NGOs		Below market returns by design



Role of the Private Sector play through **financing** (Examples)



Fund early-stage tech startups that build the resilience in climate-vulnerable communities

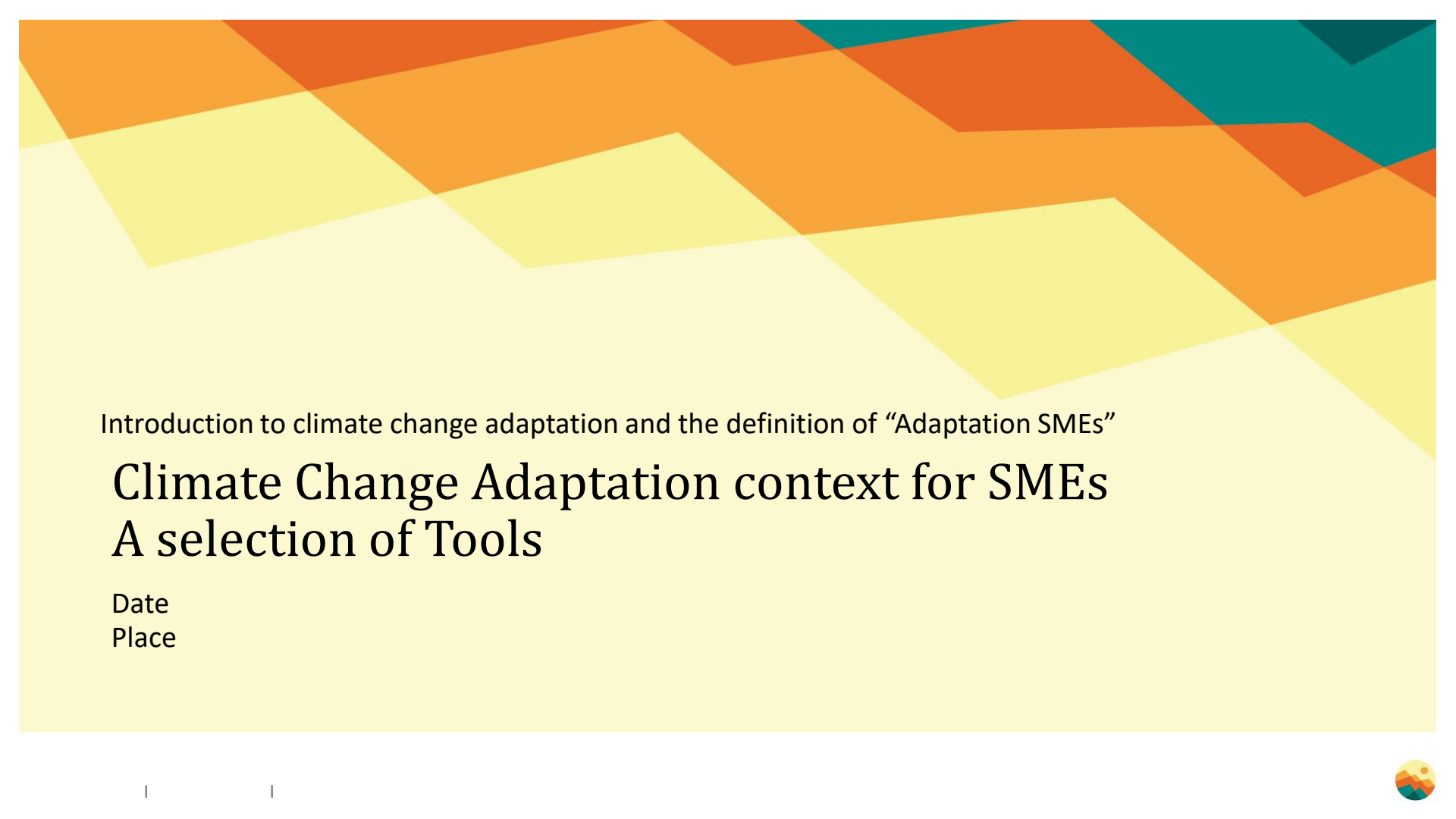


The fund that aims to mobilize USD 100 million by 2026 for climate adaptation projects



A USD 58 million impact fund and the world's first equity fund designed to build the climate resilience of smallholder farmers.





Introduction to climate change adaptation and the definition of “Adaptation SMEs”

Climate Change Adaptation context for SMEs

A selection of Tools

Date
Place





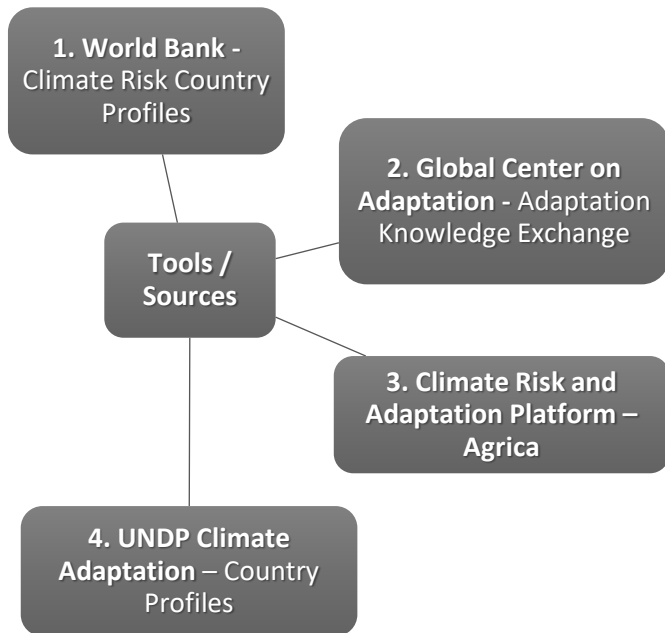
Objective

Give an overview of a selection of available tools that you can use to identify climate risks and impacts in your regions and economic sector, and to identify and understand your adaptation relevance.



Which Climate Risks and Impacts are present in my region?

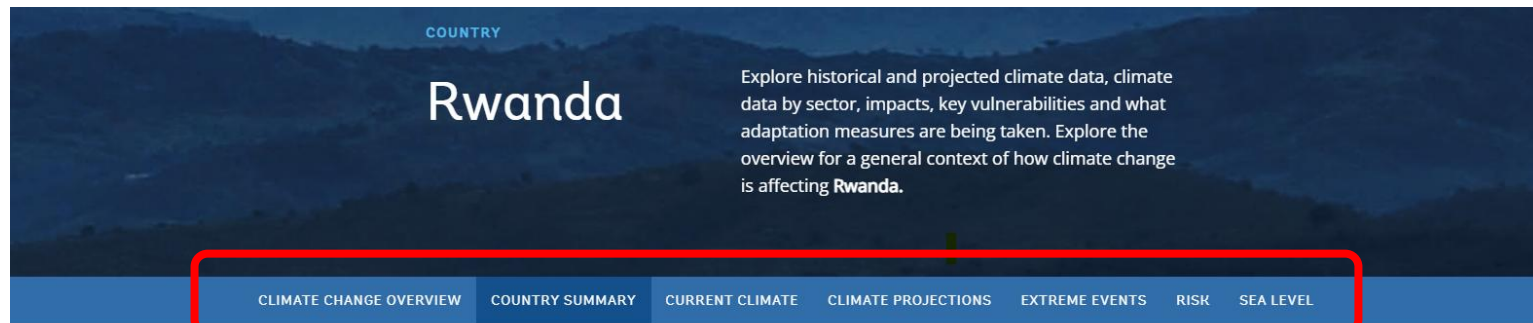
How can the SMEs identify the climate change risks relevant to their context



- **Why is this relevant for my business?**
- **What's the value-add of knowing your climate risks and impacts?**
- **Identifying** urgent and time-sensitive climate impacts and seize new opportunities.
- Identifying **new regions** and geographies where my product / service / technology can be applied.
- Marketing and **communication**.
- **Impact measurement**: where does my solution fit in the climate change context and how can I prove the benefits?



1. “Climate Risk Country Profiles”



The header of the Rwanda Climate Risk Country Profile page. It features a dark blue background with a mountain landscape. The word "Rwanda" is prominently displayed in white. To the right, a paragraph describes the page's content: "Explore historical and projected climate data, climate data by sector, impacts, key vulnerabilities and what adaptation measures are being taken. Explore the overview for a general context of how climate change is affecting Rwanda." Below this, a navigation bar contains several tabs: "CLIMATE CHANGE OVERVIEW", "COUNTRY SUMMARY", "CURRENT CLIMATE", "CLIMATE PROJECTIONS", "EXTREME EVENTS", "RISK", and "SEA LEVEL". A red rectangle highlights the "COUNTRY SUMMARY" tab.

Climate Change Overview > Country Summary

This page presents high-level information for Rwanda's climate zones and its seasonal cycle for mean temperature and precipitation for the latest climatology, 1991-2020. Climate zone classifications are derived from the **Köppen-Geiger climate classification system**, which divides climates into five main climate groups divided based on seasonal precipitation and temperature patterns. The five main groups are **A** (tropical), **B** (dry), **C** (temperate), **D** (continental), and **E** (polar). All climates except for those in the E group are assigned a seasonal precipitation subgroup (second letter). Climate classifications are identified by hovering your mouse over the legend. A narrative overview of Rwanda's country context and climate is provided following the visualizations.

Köppen-Geiger Climate Classification, 1991-2020



Monthly Climatology of Average Minimum Surface Air Temperature, Average Mean Surface Air Temperature, Average Maximum Surface Air Temperature & Precipitation 1991-2022; Rwanda

28 °C

180 mm

RWANDA - COUNTRY SPECIFIC INFORMATION

[Rwanda Climate Risk Country Profile \(New\)](#)

[First Biennial Update Report \(2021\)](#)

[Updated Nationally Determined Contribution \(2020\)](#)

[Rwanda Climate Change Data](#)

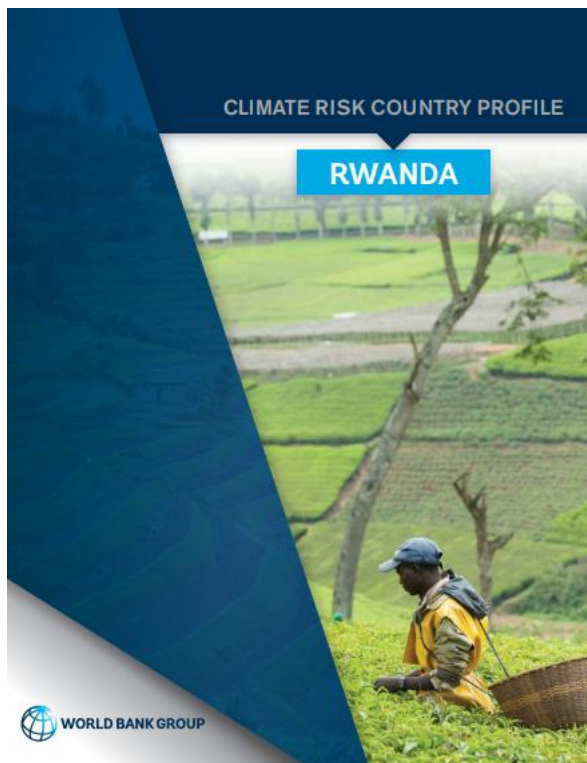


1. “Climate Risk Country Profiles”



WORLD BANK GROUP

Climate Change Knowledge Portal
For Development Practitioners and Policy Makers



[Rwanda Climate Change Data](#)

CLIMATE RELATED NATURAL HAZARDS	.11
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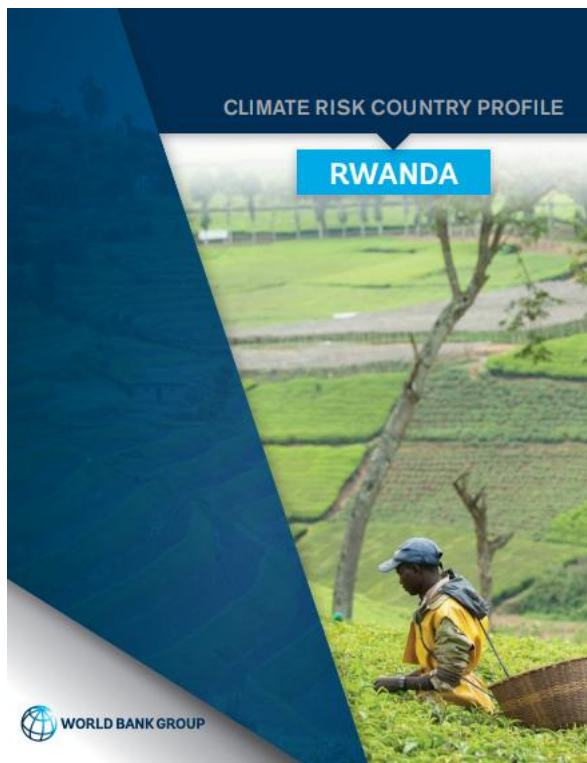


1. “Climate Risk Country Profiles”



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Climate Change Knowledge Portal
For Development Practitioners and Policy Makers



[Rwanda Climate Change Data](#)

CLIMATE CHANGE IMPACTS TO KEY SECTORS .

Agriculture

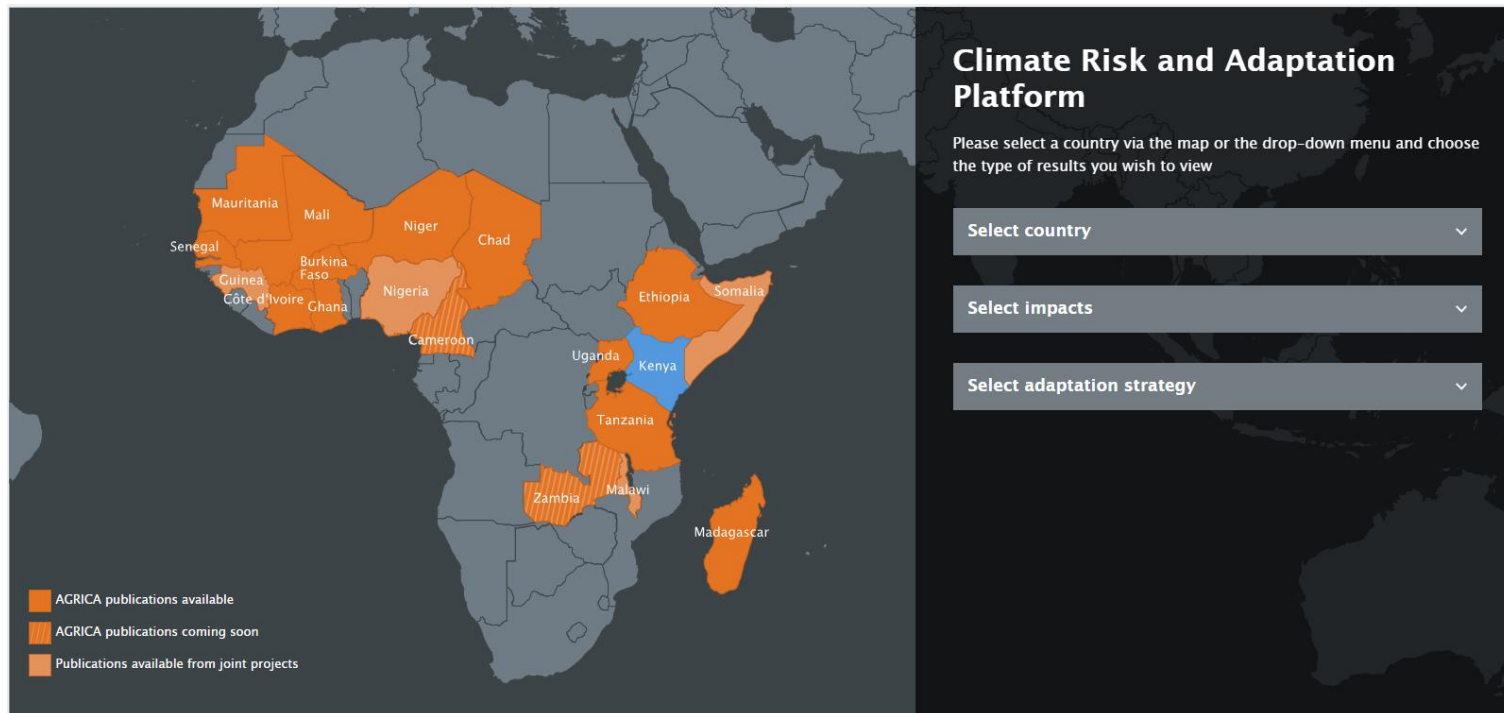
- **Rising temperatures** threaten to compromise the quality and productivity of highly lucrative, temperature-sensitive crops such as tea and coffee
- Bean production (22–30% of cultivated land) is expected to significantly decrease because **they require cooler temperatures** (14–18°C)
- **Heavy rainfall events** may lead to landslides and further exacerbate soil erosion and degrade cultivated lands

Adaptation Options

- Reuse of both organic waste and wastewater in order to restore and maintain soil fertility.
- District irrigation master plans



2. Climate Risk and Adaptation Platform - Agrica



[Agrica](#)



2. Climate Risk and Adaptation Platform - Agrica



KENYA

> Introduction

Impacts

▼ Climate

Kenya: Climate

How to read the line plots:

— historical — best estimate
— RCP2.6 — likely range
— RCP6.0 — very likely range

Lines and shaded areas show multi-model percentiles of 31-year running mean values under RCP2.6 (blue) and RCP6.0 (red). In particular, lines represent the best estimate (multi-model median) and shaded areas the likely range (central 66 %) and the very likely range (central 90 %) of all model projections.

How to read the map plots:

Colours show multi-model medians of 31-year mean values under RCP2.6 (top row) and RCP6.0 (bottom row) for different 31-year periods (central year indicated above each column). Colours in the leftmost column show these values for a baseline period (colour bar on the left). Colours in the other columns show differences relative to this baseline period (colour bar on the right). The presence (absence) of a dot in the other columns indicates that at least (less than) 75 % of all models agree on the sign of the difference. For further guidance and background information about the figures and analyses presented in this profile kindly refer to the supplemental information on how to read the climate risk profile.

DOWNLOADS



Climate Risk Profile Kenya

PDF, 3 MB



2. Climate Risk and Adaptation Platform - Agrica

Climate Risk Profile: Kenya



Summary

	<p>This profile provides an overview of projected climate parameters and related impacts on different sectors in Kenya until 2080 under different climate change scenarios (called Representative Concentration Pathways, RCPs). RCP2.6 represents the low emissions scenario in line with the Paris Agreement; RCP6.0 represents a medium to high emissions scenario. Model projections do not account for effects of future socioeconomic impacts.</p>	<p>Agro-ecological zones might shift, affecting ecosystems, biodiversity and crop production. Models project regionally varying changes in species richness and an increase in tree cover in response to climate change.</p>	<p>Precipitation trends are highly uncertain: Model projections vary between indicating almost no change and an annual average precipitation increase of up to 53 mm by 2080, within the same climate scenario. Future dry and wet periods are likely to become more extreme.</p>
	<p>Agriculture, biodiversity, health, infrastructure and water are highly vulnerable to climate change. German development cooperation is committed to addressing these challenges by seeking to mainstream climate change adaptation into its cooperation portfolio.</p>	<p>Per capita water availability will decline by 2080 mostly due to population growth. Model projections indicate that water saving measures are expected to become particularly important after 2030.</p>	<p>Under RCP6.0, the sea level is expected to rise by 40 cm until 2080. This threatens Kenya's coastal communities and may cause saline intrusion in coastal waterways and groundwater reservoirs.</p>
	<p>Depending on the scenario, temperature in Kenya is projected to rise by between 1.2 and 3.2 °C by 2080, compared to pre-industrial levels, with higher temperatures and more temperature extremes projected for the north and east of Kenya.</p>	<p>The population affected by at least one heatwave per year is projected to rise from 0.6 % in 2000 to 6.0 % in 2080. This is related to 59 more very hot days per year over this period. As a consequence, heat-related mortality is estimated to increase by a factor of five by 2080.</p>	<p>The models project a possibility of an increase in crop land exposure to drought. Yields of millet and sorghum are projected to decline, while yields of cassava and cow peas are projected to benefit from CO₂ fertilisation. Farmers will need to adapt to these changing conditions.</p>



3. The Knowledge Exchange platform from The Global Center on Adaptation



State Climate Vulnerabilities and Adaptation Contributions – Nigeria country profile

Climate Hazards

- Agriculture is heavily impacted by flooding and drought.
- 25% of the population (41 million people) living in high climate exposure areas, with the highest exposure in coastal states; 27–53 million people at risk from relocation from 0.5m sea level rise.
- Coastal erosion, rising seas & oil pollution destroying mangrove forests, which buffer against sea storm surges.
- Disasters result in land & infrastructure degradation from erosion, direct crop failure from floods and heavy rains, and nutrient leaching, and fungal growth from humidity.
- Heavy rainfall can trigger riverine & flash floods, common in hill areas, triggering landslides & mudslides and consequently gully erosion in sedimentary terrains.
- Climate change (CC), deforestation, watershed degradation, land use, urbanization have exacerbated impacts from flooding & droughts and have increased the risk of wildfires.
- Water stress is likely to be exacerbated by competing demands from households, industrial consumption, and agriculture.

Climate hazards from 1991–2020 (2)

Hazard	Subtype	Events	Deaths	Affected	Affected per capita per decade
Flood	Unstated	20	587	2,268,267	2.75%
	Riverine	26	980	9,411,491	
	Flash	6	330	98,565	
Storm	Unstated	2	-	-	0.00%
	Tropical	-	54	16,000	
	Convective	3	100	-	
Extreme Temperatures	Cold	1	18	-	0.00%
	Heat	1	60	-	
Landslides		2	37	-	0.00%
Total		61	2,151	11,794,323	2.76%

Urban flood (3)



Water scarcity (4)



Sectoral Adaptation Planning

Agriculture

24.4% of GDP (2016)

- 78% of total land (708,000km²) is cultivated: 48% arable lands, 42.8% permanent meadows, 9.2% permanent crop production.
- Significant imports: wheat, fish, rice, sugar, second-largest rice importer & one of the largest producers of cassava in the world.

Main climate change impacts

- High CO₂ levels may lead to nutrient declines in rice of 17%; cassava is well adapted to hot, dry conditions, but is susceptible to waterlogging/production yields from heavy rainfall.
- In southern zones, flooding, erosion, and soil loss are likely; in the north, a traditional livestock production zone, decreasing precipitation, and increased temperatures are likely.
- Trends are likely to adversely impact livestock productivity in arid & semi-arid regions, affect ecosystems due to over-stressed grazing lands, and the direct impacts of heat on livestock.
- Shortened growing seasons are likely due to higher temperatures, impacting rice production.

Water

- 214km³ of freshwater covering a surface area of over 20M ha.
- Water resources include 200 dams storing 31B m³.
- In rural areas, 88% of households use surface water, with 83% of those being among the poorest households in the country.

Main climate change impacts

Proposed adaptation strategies

- Empowering agencies under the Ministry of Water Resources to focus on strategies to optimize the use of Nigeria's water resources.
- Ongoing adaptation strategies include reducing water loss from dams such as Kainji, Challawa, Tiga, and Bakolori, like the use of biodegradable suppressants.
- Implement more irrigation and enhance storage of reservoirs.
- Recycle wastewater to improve agriculture in peri-urban areas.
- Water transfers to redistribute freshwater.
- Improve water management strategies and domestic/industrial.

Adaptation Exchange



4. “UNDP Climate Change Adaptation Portal – Country Profiles”



Pakistan



Natural hazards

Frequent earthquakes, occasionally severe, especially in the north and the west; flooding along the Indus after heavy rains (July and August)

Major environmental issues

Water pollution from raw sewage, industrial wastes, and agricultural runoff; limited natural fresh water resources; most of the population does not have access to potable water; deforestation; soil erosion; desertification.

National Level Policies and Strategic Documents

- Prime Minister's Committee on Climate Change
- National Conservation Strategy
- National Environmental Policy
- National Water Policy
- National Forest Policy

Current Adaptation Actions

Water is the sector most represented in Pakistan's current adaptation initiatives, followed by risk reduction, policy formulation, agriculture, energy, forestry, coastal zones, and nature.

Proposed Adaptation Action

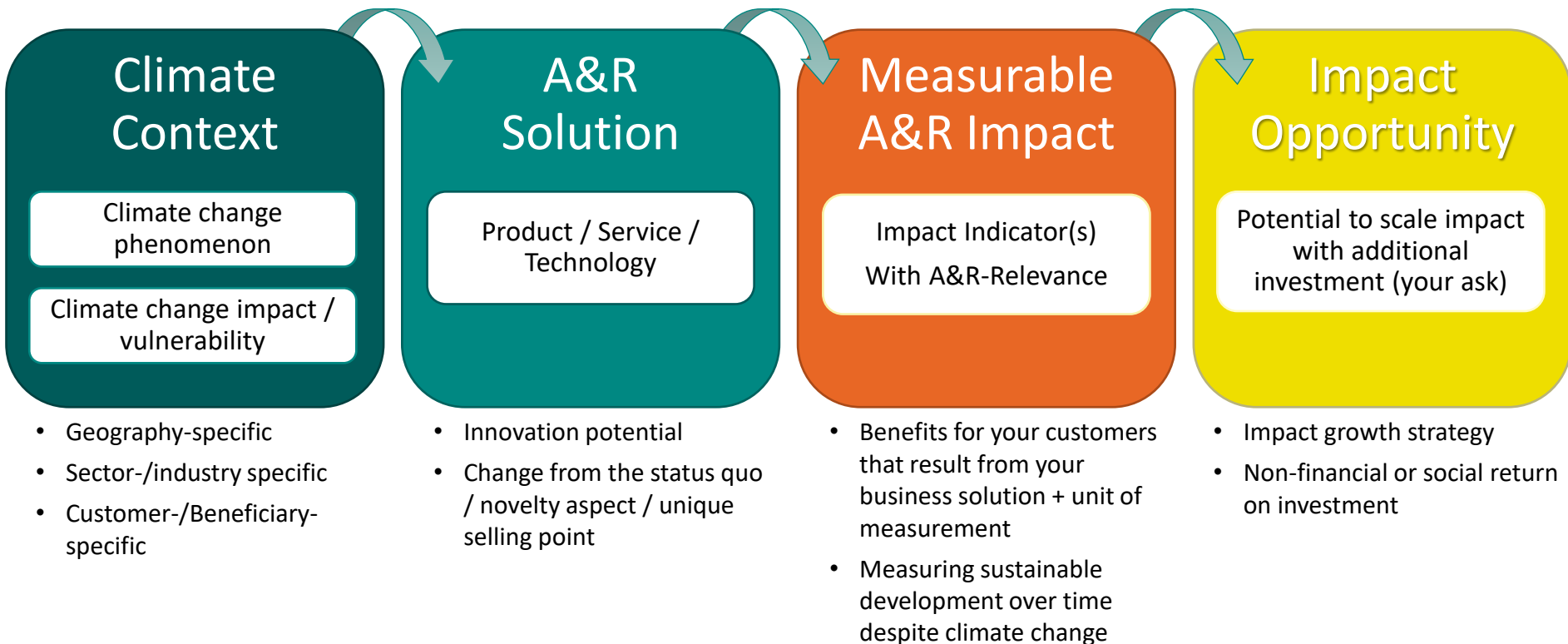
Pakistan is expected to participate in a few national and regional projects that are presently being developed, as described below:

- **Technical Assistance Loan** for the Implementation of the National Environment Policy. Objectives include (1) a Multi-sector project with opportunities for climate resilient agriculture, (2) drinking water and sanitation, (3) water and disaster management, and (4) better governance.
- **Information Sharing System** to enhance the coping capacities of communities in dealing effectively with climate variability and climate change.
- Building Climate Resiliency for **Irrigation Infrastructure** and Agro-Business.

Pakistan



Developing Your Adaptation Narrative



Case example

African Venture Philanthropy Alliance: AVPA

Report: Priming Private Sector Investment in Climate Adaptation Innovations in East Africa

Stable Foods: Building low-cost irrigation-as-a-service for smallholder farmers



The adaptation challenge	Increased rainfall disruption, the breakdown of normal rain patterns, at the same time as greater drought, soil drying and runoff are increasing crop vulnerability to rainfall gaps, and hampering planning and investment.
The enterprise solution	Stable Foods has launched collective irrigation systems in western Kenya, developing boreholes and installing pumps and distribution piping to subscribers who access the irrigation as a service on a pay-as-you-go metering system. The subscribers are also provided with agricultural extension and market linkages.
Finance and sustainability	The business was founded by a group of entrepreneurs in partnership with venture studio Pyramid Ventures, and has been built with seed investment from Acumen Resilient Agriculture Fund (ARAF) and Mercy Corps Ventures. The subscribed irrigation infrastructure has demonstrated sustainability in western Kenya and Stable Foods is now seeking new investments to provide the CapEx for expansion.
The impact	Increases yields by 5-8 times, provides irrigation that is affordable for 90 percent of smallholder farmers compared with 4 percent who can afford the current solutions, and secures an estimated 8-fold increase in earnings for subscribing farmers by allowing them to move to three harvests a year, supported by training in growing irrigated off-season crops that earn higher prices, and making sales via Stable Foods' food stores.

Source: AVPA & Lemelson Foundation



Climate context & Adaptation Relevance?

- Why is this relevant for my business?
- What's the value-add of knowing your climate risks and impacts?
- And for pitching my business?

➤ Problem Statement and current scenario

- Explain the nature and quantum of loss/problem
- Charts/Statistics/Pictures to explain the same
- What is the gap in the current offerings

➤ Market Opportunity

- Potential market size of the solution

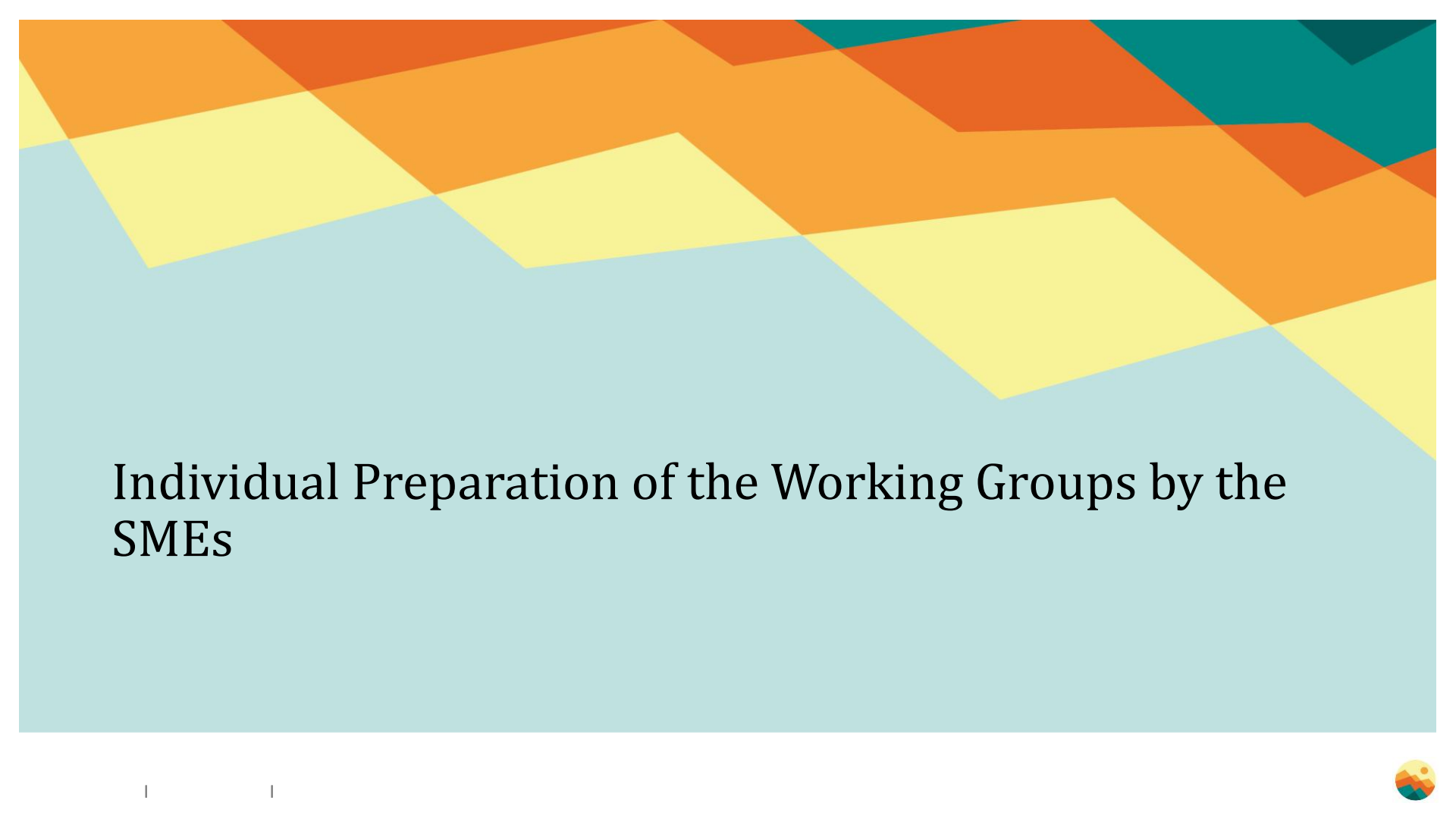
➤ Impact



Lunch

1 hour





Individual Preparation of the Working Groups by the SMEs

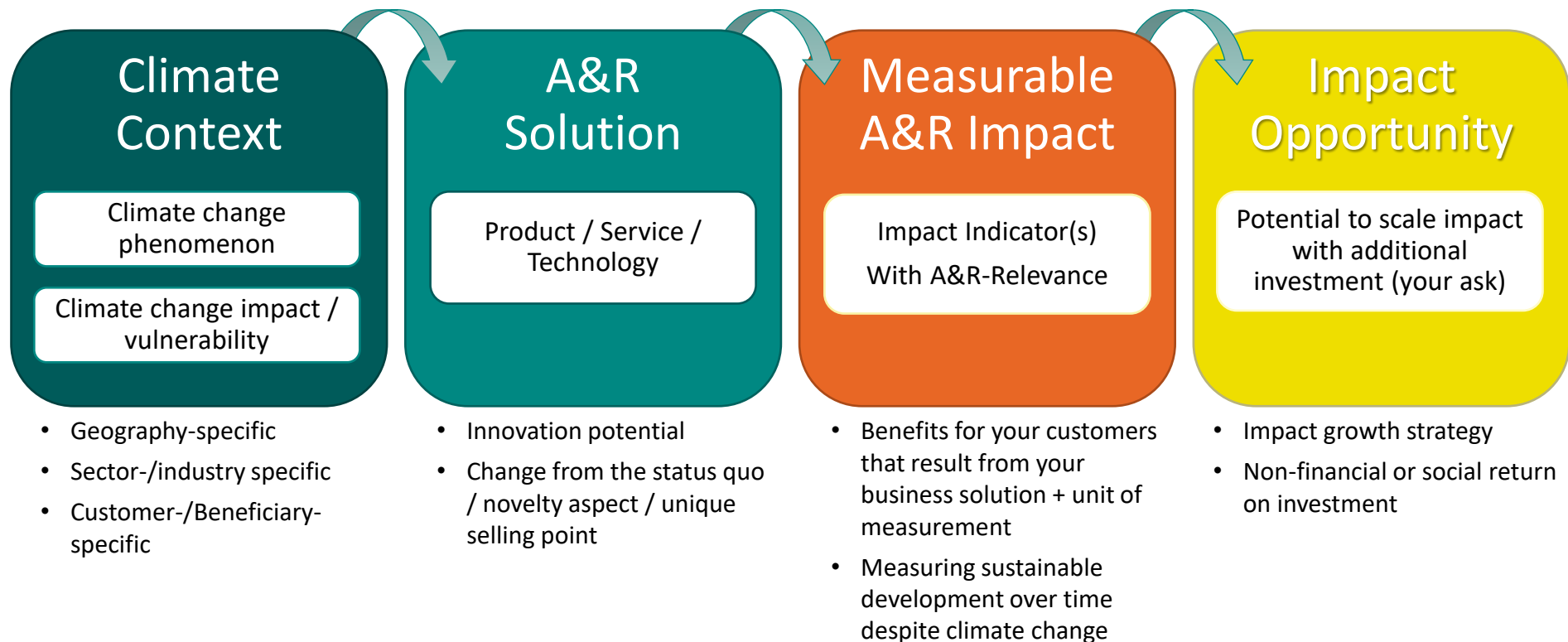


Working phase: Developing Your Adaptation Narrative

- Each SME has time to reflect on their own climate change context and how their business contributes to the resilience of their clients.
- Each SME **prepares one poster** presenting the current and future climate change impacts in their region, their business case, and how their solutions contribute to the adaptation and resilience of their clients.
- What are the key factors that determine vulnerability, resilience, and coping capacity?



Developing Your Adaptation Narrative



Working groups

A (Name of the facilitator) Room	B (Name) Room	C (Name) Room	D (Name) Room
Name of the company	Name of the company	Name of the company	Name of the company
Name of the company	Name of the company	Name of the company	Name of the company
Name of the company	Name of the company	Name of the company	Name of the company
Name of the company	Name of the company	Name of the company	Name of the company
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Day review & Closing

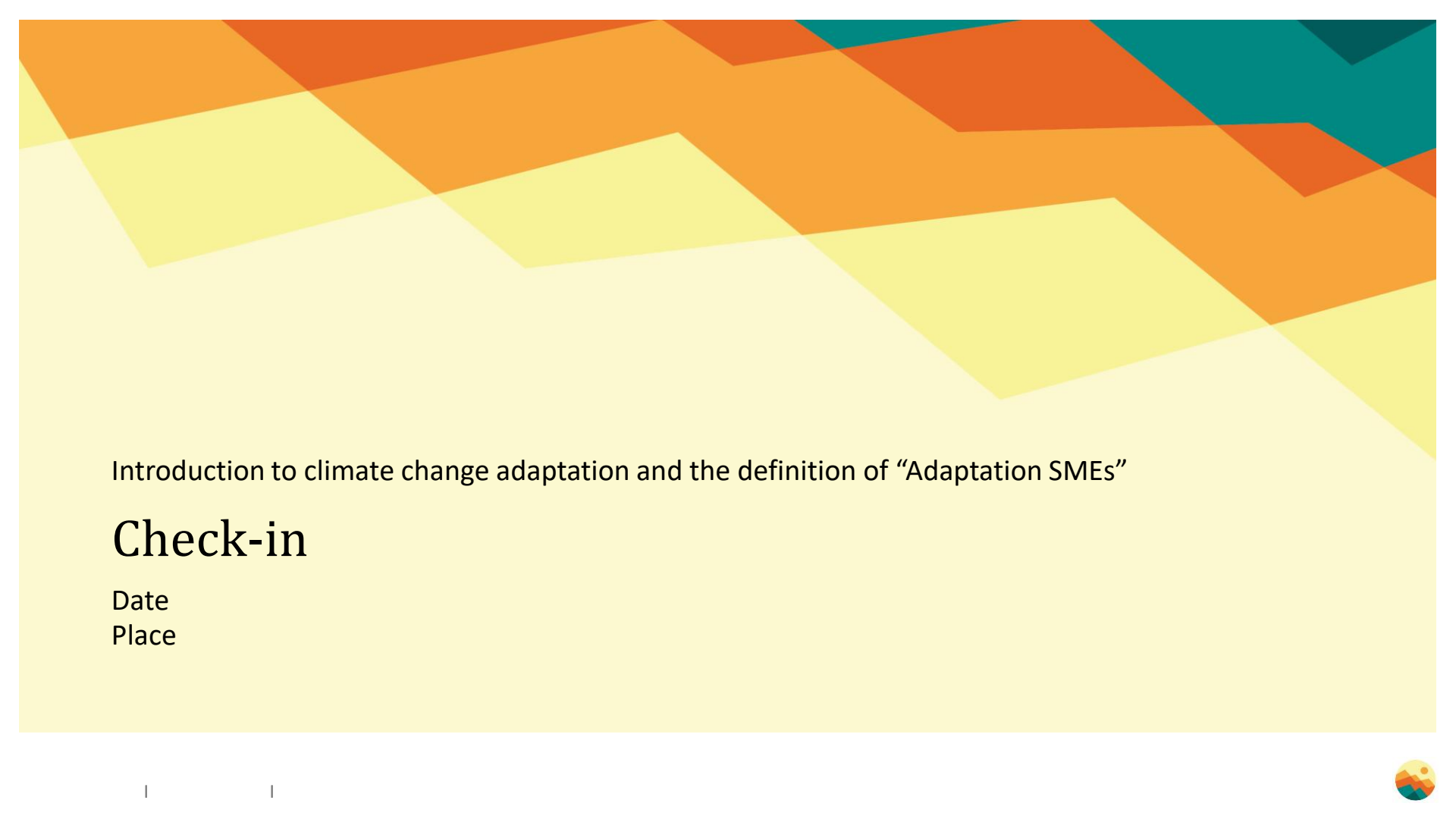


Introduction to climate change adaptation and the definition of “Adaptation SMEs” – **DAY 2**

Objectives:

- (Re-)introducing the concept of an Adaptation SMEs and discussing open questions/challenges
- Participants advance their positioning and profile as an Adaptation SME
- Participants develop concrete action plans for using the PrivABoo process to further develop/sharpen their profile as an Adaptation SME to gain access to new networks and funding sources





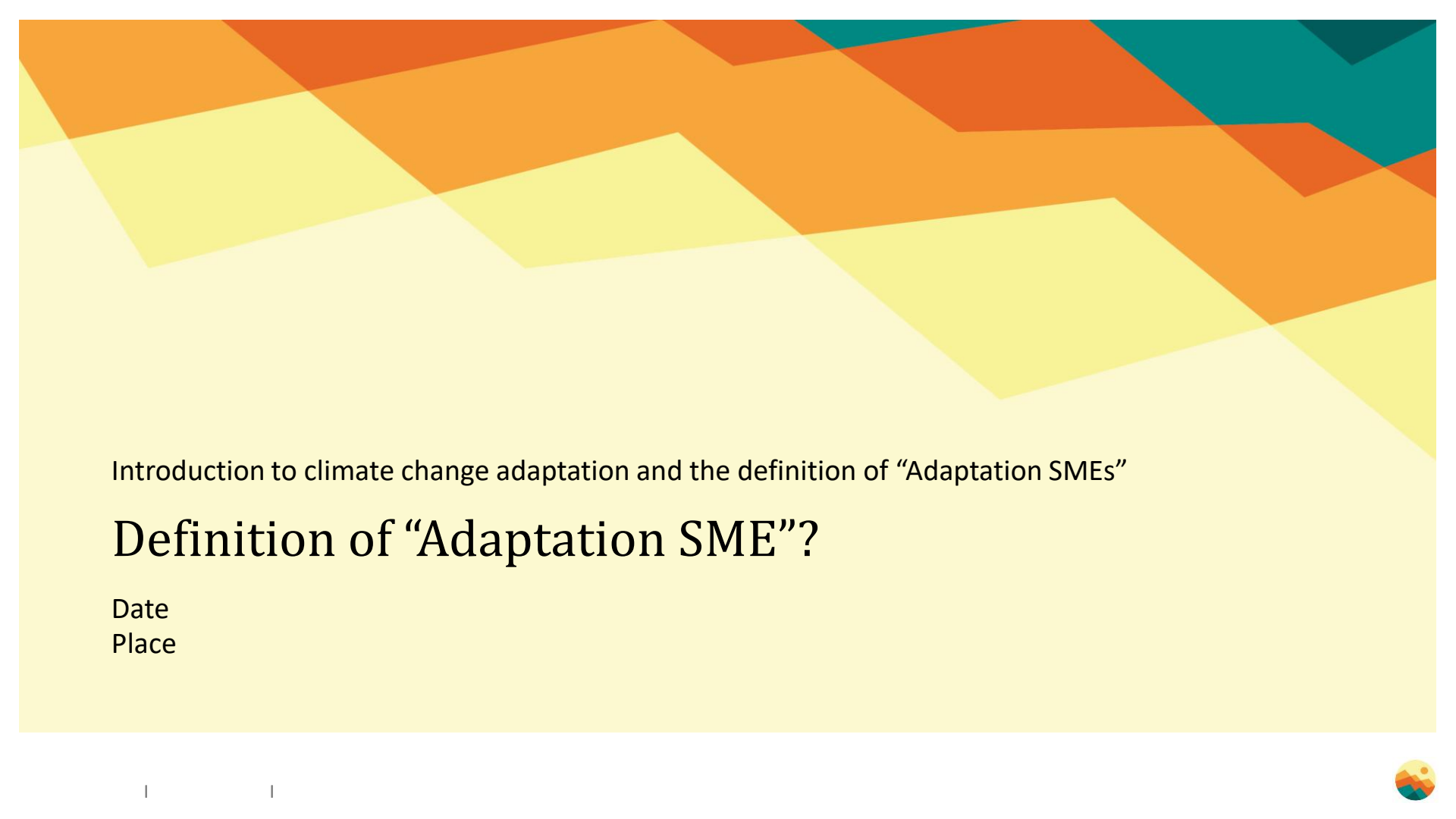
Introduction to climate change adaptation and the definition of “Adaptation SMEs”

Check-in

Date

Place





Introduction to climate change adaptation and the definition of “Adaptation SMEs”

Definition of “Adaptation SME”?

Date

Place



Adaptation SME Accelerator Project



TAXONOMY: DEFINITION

An "Adaptation SME" is a company providing technologies, products, or services that:

- Address systemic barriers to adaptation by strengthening users' ability to understand and respond to physical climate risks and impacts.

AND / OR

- Prevent or reduce physical climate risk or impacts on assets, economic activities, people, or nature.

QUALIFICATION

To qualify as an Adaptation SME, an SME's technology, product, or service offering must:

- Enable a user to identify, evaluate, manage or monitor physical climate risks and impacts, preventing and reducing contextual and location-specific climate risk or adverse impacts

AND / OR

- Enable a user to address systemic barriers to adaptation, such as access to information, capacity, technology or finance

AND

- Be offered in developing countries

AND / OR

- Measurable and defined contribution to adaptation outcomes



The GSMA Innovation Fund for Climate Resilience and Adaptation

Climate resilience and adaptation solutions are defined as those that help build individual, community, or institutional capacities to:



- **Adapt** to multiple, long-term, and future climate change risks;

OR

- **Anticipate** and reduce the impact of climate variability and extremes through preparedness and planning;

AND/OR

- **Absorb** (i.e., face and manage) adverse conditions, emergencies, or disasters.

[\(The 3As: Tracking resilience across BRACED\)](#)



Application Form

Are you currently working on/offering a fintech solution?

☒ Yes ☐ No

If yes, please describe your fintech solution and how it builds customers' resilience?

Explain how it works

Are you currently working on/offering a climate resilience solution?

☒ Yes ☐ No

If yes, please describe your climate solution and how it builds customers' resilience?

Explain how it works

Eligibility Criteria



01. Impact

Companies designing products for climate vulnerable and underserved communities



02. Product

Company has a fintech product or climate adaptation product that builds customers' resilience

...

3 Investment Areas

Financial Resilience



- Insurance
- Disaster proofing
- Emergency payments
- Data for pricing risk

Climate-smart livelihoods



- Climate-smart agricultural practice
- Recycling
- Carbon credits
- Fishery management

Sustainable Utilities



- Water management
- Cooling / Cold storage
- Sustainable energy access
- Ventilation



PrivABoo Call for Adaptation SMEs

Question		Scoring Criteria	Scoring Metric
Climate Context	Which climate phenomenon does your business's technology, product, or service tackle?	Solution must address a clearly identifiable, physical climate risk, can be multiple.	YES / NO
	If you can, please specify the harmful impact(s) that result from the climate phenomenon	Solution must address a clearly identifiable harmful impact that results from a climate phenomenon.	YES / NO
	Your business's technology, product or service can best be categorized as ...: <ul style="list-style-type: none"> • Climate Adaptation Intelligence • Climate Adaptation Product/Service 	Solution must be classifiable	YES / NO
Measurable Impact	What are the improved outcomes for your customers that result from using your business solution?	Guiding Question: To what extent is the business solution focused on adaptation and resilience? <ul style="list-style-type: none"> • 7-10 points: The main focus or core of the business solution is climate change adaptation. • 4-6 points: A significant part of the business solution is focused on adaptation. • 1-3 points: There are some limited adaptation benefits from the business solution • 0 points: Only indirect adaptation benefits or co-benefits. 	Point Score from 0 – 10
	Is your company able to track, document and prove the improved outcomes for your clients?	<ul style="list-style-type: none"> • 7-10 points: Quantifiable client benefits are currently being tracked with an in-house impact measurement system or similar • 1-6 points: Benefits are, in theory, measurable with quantifiable indicators/metrics, but the company is not currently doing so/not equipped to do so. • 0 points: No benefits measurable at the level of clients 	Point Score from 0 – 10
	If yes, please describe to what extent your company is able to track the improved outcomes for your customers.		
	Please indicate the unit of measurement or the metric used to track the improved outcomes.		



Defining "Adaptation SMEs"

Combination of

Eligibility or screening criteria



Classification/categorization



measurable contribution to adaptation &
resilience

Often proprietary, depending on
the stakeholder (fund, investor)

Adaptation M&E,
Impact Measurement



Some Investor Insights

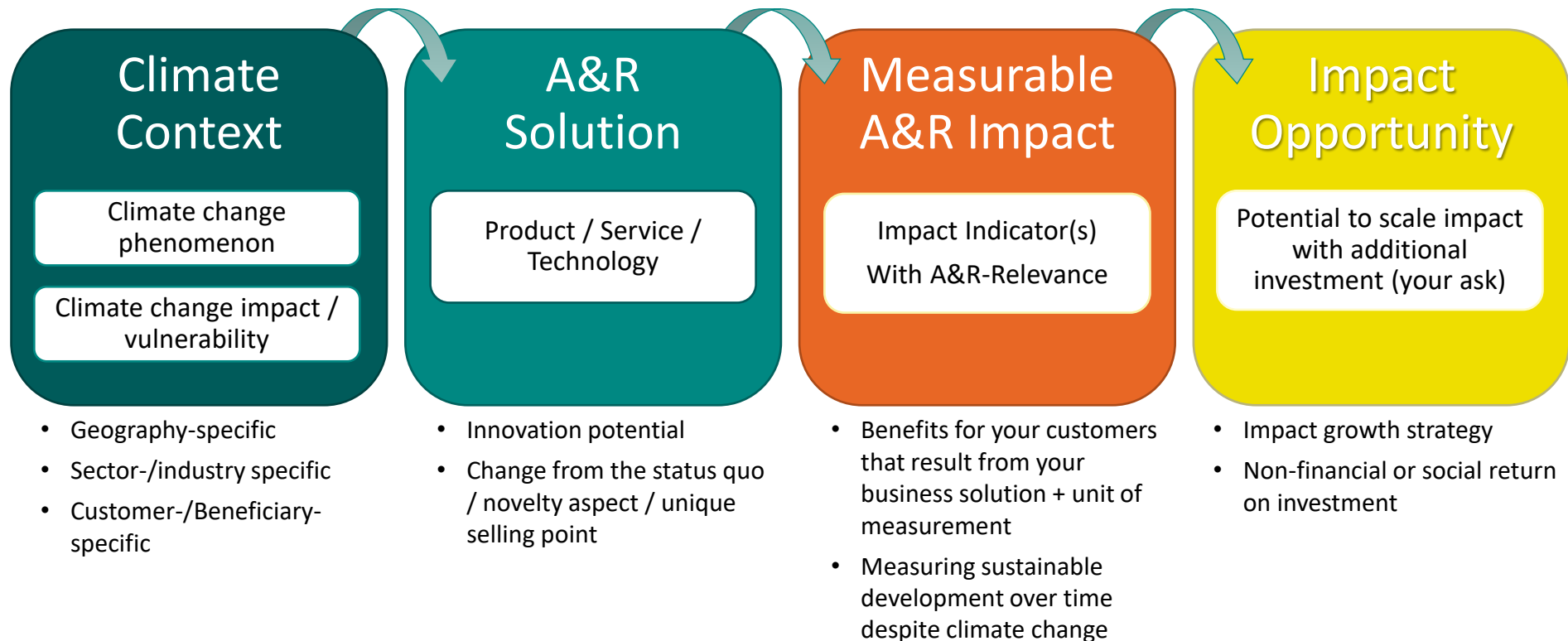
- Mindful of the fact that SMEs have limited expertise and resources
- Most have an internally developed framework aligning with their impact goals
- Most will give support to report impact in their customized format, once SME is part of the portfolio



Basic **Adaptation & Resilience Narrative** and identification of **impact indicators** will suffice for most for the first conversations



Build an Adaptation & Resilience "Narrative" for your Business



Examples: Climate Risks Requiring Business Adaptation Action

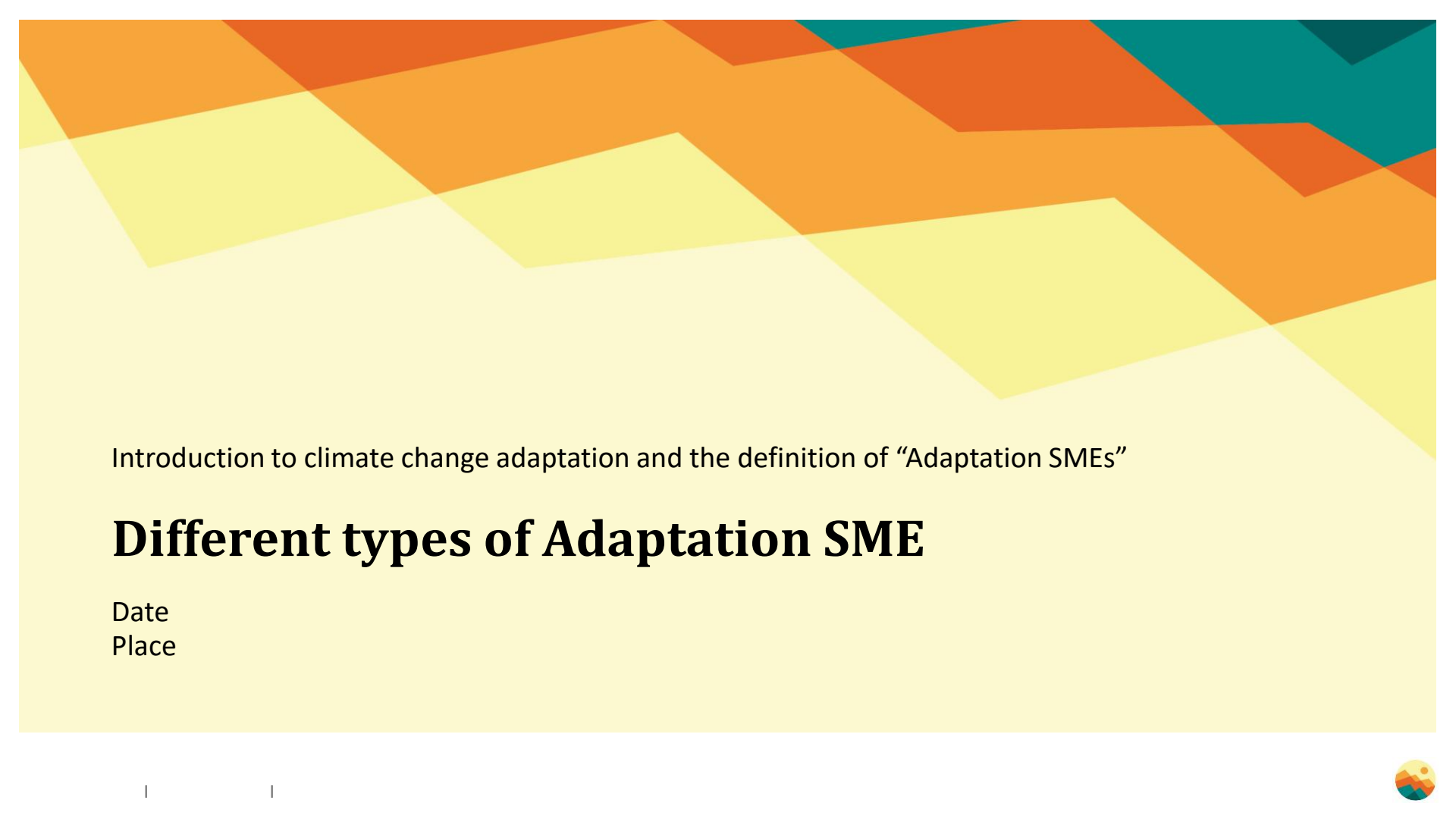
Impacts of Climate Change	Knock on Impacts on Business
Temperature change	Requirement for cooling equipment for employees and to maintain stable temperatures for climate sensitive industrial processes.
Precipitation change impacting agricultural yields	Change in availability and quality of climate-sensitive natural resources as input materials for production, increased competition and cost for resources.
Sea Level rise and extreme weather events including flooding	Risk of damage of assets (buildings and equipment), business interruption to water and energy supplies, supply chain and logistics, increased costs to weatherproof buildings and storage facilities and higher costs of insurance policies.
Water stress	Increased competition and cost for water resources.
Biodiversity loss	Change in availability of natural resources as input materials.
Human health and increase in incidence of disease	The health of employees and workers in the supply chain is compromised, and rising costs of healthcare.
Regulation to encourage mitigation	Increased cost for energy resources and cost for compliance.
Changing socio-cultural preferences	Changes in consumer behaviour and demand for specific products and services.





[Climate Collective Foundation](#) (CCF) and the [Aspen Network for Development Entrepreneurs](#) (ANDE) recently published a [Climate Metrics Guide](#) to provide SGBs, impact investors, and ESOs with a consolidated list of available tools and frameworks for climate impact measurement, along with guidance on how to select best-fit resources based on their sector and impact goals.





Introduction to climate change adaptation and the definition of “Adaptation SMEs”

Different types of Adaptation SME

Date

Place



Overview of different types of Adaptation SME in different sectors

Different perspectives



Enabling Private Investment in Climate Adaptation & Resilience

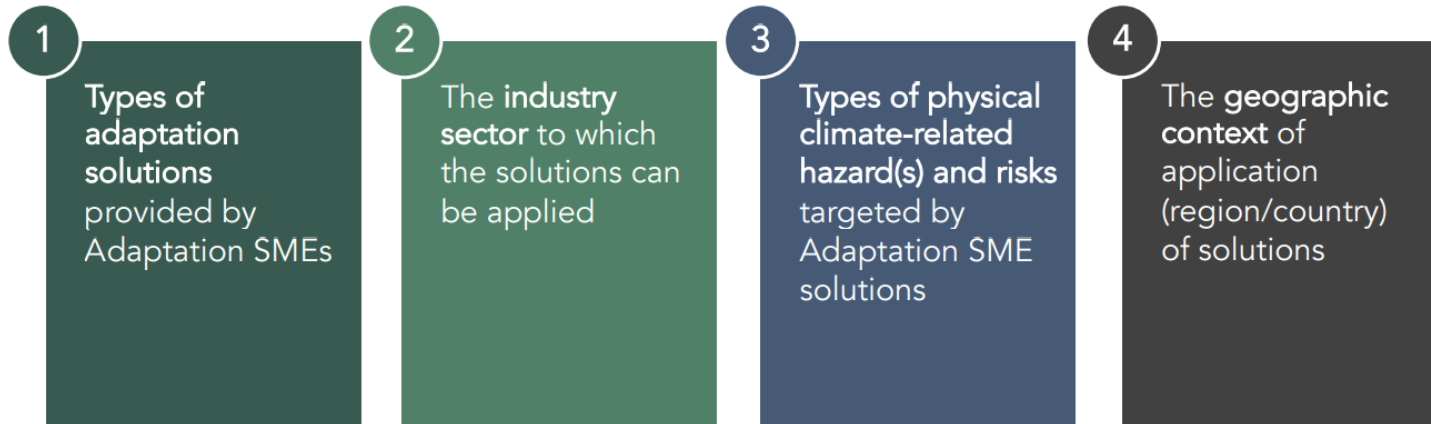


Overview of different types of Adaptation SME in different sectors



Investors Challenge: adaptation business models can often not be identified by capital providers due to both insufficient communication and awareness of the adaptation relevance from solution providers.

If I'm commercializing adaptation relevant products, services or technologies, how can I build my narrative?



Overview of different types of Adaptation SME in different sectors



1

Types of
adaptation
solutions
provided by
Adaptation SMEs

By Adaptation solution type ¹	
Climate Adaptation Intelligence	Advisory services for e.g. climate risk exposure and vulnerability identification & assessment
	Data management and operations (e.g. provision of calibrated/validated data sets; collection and provision of raw data for global weather, and climate change applications)
	Decision-support tools (e.g. early warning systems, software performing cost/benefit analysis of adaptation solutions)
Climate Adaptation Products and Services	Physical climate risk identification and impact assessment (e.g. spatial hazard and vulnerability mapping analysis, disaster risk assessment tools, systematic monitoring & remote sensing climate impact analysis)
	Physical climate risk management (incl. e.g., water efficient irrigation technology, rainwater harvesting; crop storage, geosynthetics; etc.)
	Physical climate risk transfer (e.g. parametric insurance)



Overview of different types of Adaptation SME in different sectors



3

Types of physical climate-related hazard(s) and risks targeted by Adaptation SME solutions

By targeted climate hazard and related risks

	Key climate-related hazards ¹	Key risks on physical and biological systems ¹	Key risks on human and managed systems ²
Temperature-related	<ul style="list-style-type: none"> + Temperature variability* + Changing temperature (air, freshwater, marine water)* 	<ul style="list-style-type: none"> + Heat stress* + Heat wave** + Cold wave/frost** + Wildfires** 	
Wind-related	<ul style="list-style-type: none"> + Changing wind patterns* + Cyclone, hurricane, typhoon** + Storm** + Tornado** 		<ul style="list-style-type: none"> + Reduced agricultural productivity and food security + Damages to physical infrastructure, property, and critical services
Water-Related	<ul style="list-style-type: none"> + Changing precipitation patterns and types (rain, hail, snow/ice)* + Precipitation variability* + Heavy precipitation** 	<ul style="list-style-type: none"> + Ocean acidification* + Saline intrusion* + Sea level rise* + Water stress* + Drought** + Flood** + Glacial lake outburst** 	<ul style="list-style-type: none"> + Reduction in water availability, quality and security + Business disruptions + Spread of pests, and vector-borne and water-borne diseases
Solid-Mass Related		<ul style="list-style-type: none"> + Glacial retreat, changes in ice, snow cover, permafrost thawing* + Coastal erosion* + Soil degradation & erosion* + Solifluction* + Ecosystem & biodiversity loss* + Avalanche** + Landslide** 	<ul style="list-style-type: none"> + Impacts to human health, and loss of livelihoods

* Chronic ** Acute

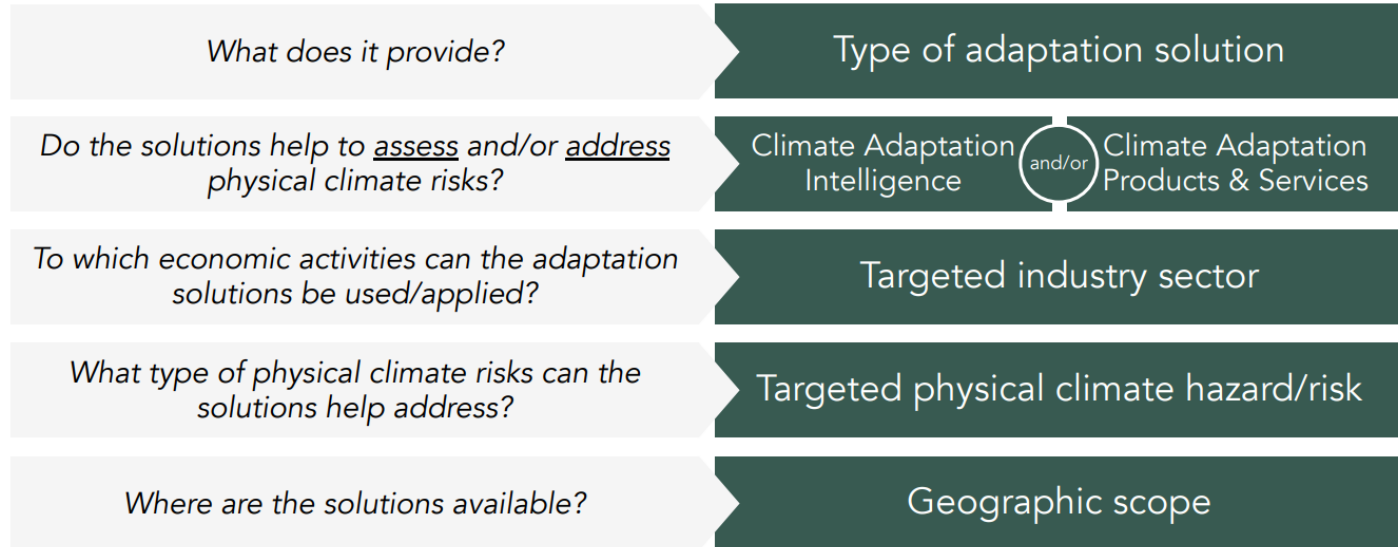


Overview of different types of Adaptation SME in different sectors



The **Lightsmith** Group

Building the Adaptation SMEs narrative according the different classifications



Overview of different types of Adaptation SME in different sectors



Example:

Data analysis and weather monitoring technologies and services company for farming in Asia

Application of Adaptation Solutions Taxonomy and Classifications

Adaptation SME Eligibility Screening

Criteria	Rationale
✓ Enables a user to address systemic barriers to climate adaptation relevant for the context	Field data and more precise weather analytics provide information (e.g., soil moisture, live weather conditions) that can help farmers make better decisions in the face of increased weather volatility, drought risk, etc.
✓ Solution is offered in developing countries	SME is based in South Asia and serves customers in South Asia
✓ Adaptation-related outcomes can be defined and measured	Sample impact KPIs might include: hectares of farmland covered, # of farmers served; liters of water saved; \$ of agricultural loans originated

Classification of Adaptation SME Solution

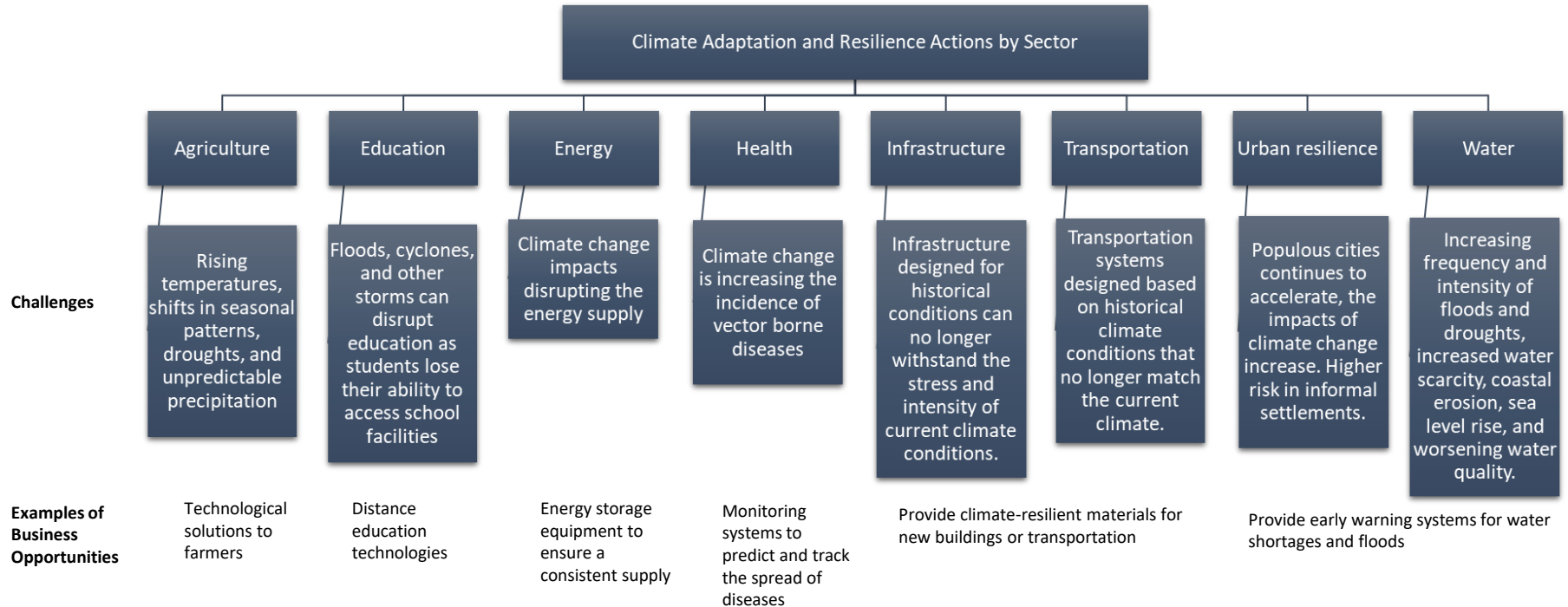
Type of adaptation solution	Climate Adaptation Intelligence → Decision-support tool
Targeted industry sector	A. Agriculture, Forestry and Fishing 0.1 Crop and animal production
Targeted physical climate hazard	+ Temperature-related + Water-related
Geographic scope	SME based in South Asia offering its solutions in South Asia



Overview of different types of Adaptation SME in different sectors



Enabling Private Investment in Climate Adaptation & Resilience



Case Example: Cold❄️Hubs

Which kind of option or solution are they offering? What's their narrative?

Problem: In developing countries, 45% of food spoils mainly due to lack of cold storage

Their solution: Solar Powered Cold Storage

Business Model: Pay-as-you-store subscription model. Farmers pay a daily flat fee for each crate they store.



Type of Adaptation SME

1. Adaptation solution type

Does the solution help to assess and/or address physical climate risks?

Physical Climate Risk Management: Crops storage in cold rooms

2. Targeted climate hazard and risks

What type of physical climate risks can the solutions help address?

Key risk: Heat Stress / reduced agricultural productivity

3. Sector

To which economic activities can the adaptation solution be used/applied?

Agriculture

Business opportunity: Provide technological solutions to farmers to adapt to heat stress, improving their income and resilience



Is it relevant for my business to position itself as an Adaptation SME?

- Recent climate-driven disasters such as catastrophic floods in Pakistan, Nigeria, and Chad, and the prolonged drought and famine in the Horn of Africa, highlight the urgent need for investment in adaptation.
- COP26 in Glasgow urged for a **doubling of adaptation funding** to developing countries from 2019 levels to \$40.6 billion by 2025.
- Emphasized at COP27, the **amount of adaptation finance** to developing countries needs to **increase by 5 to 10 times**.
- Adaptation business models **can often not be identified by investors due to both insufficient communication and awareness** of the adaptation relevance from solution providers.

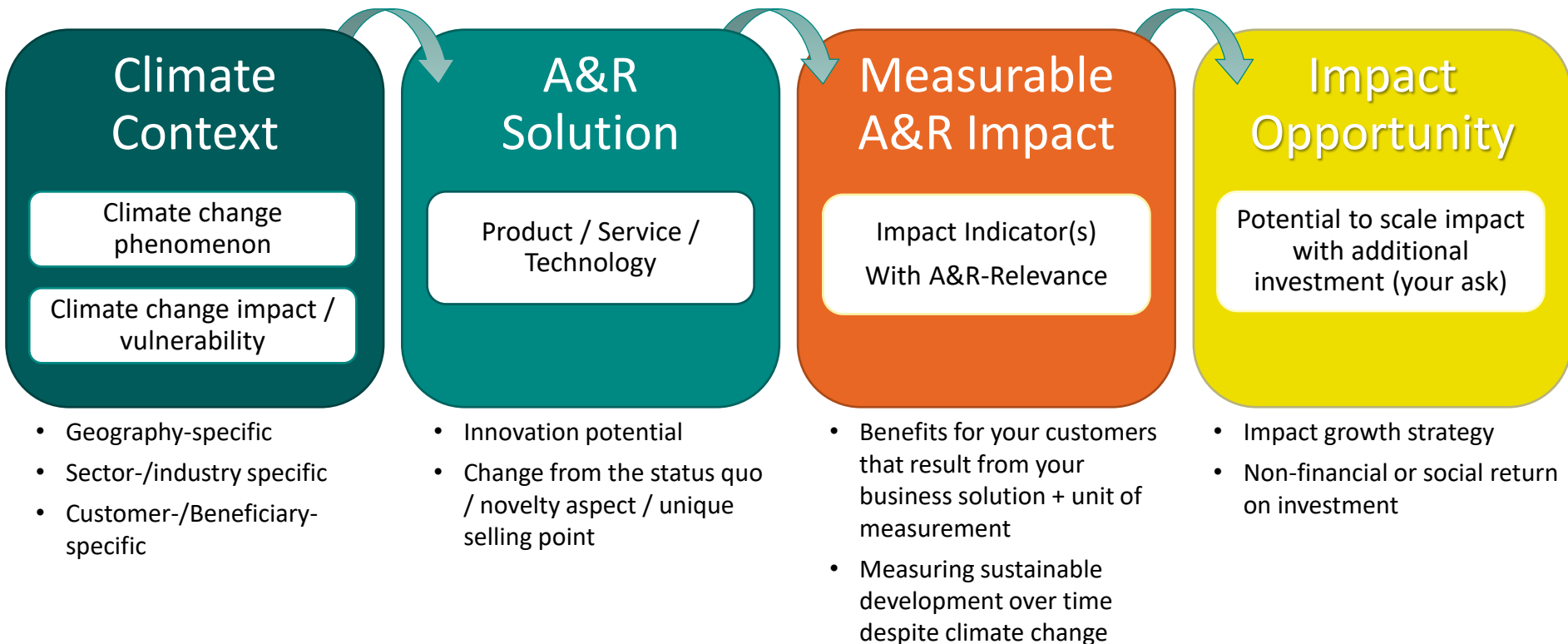


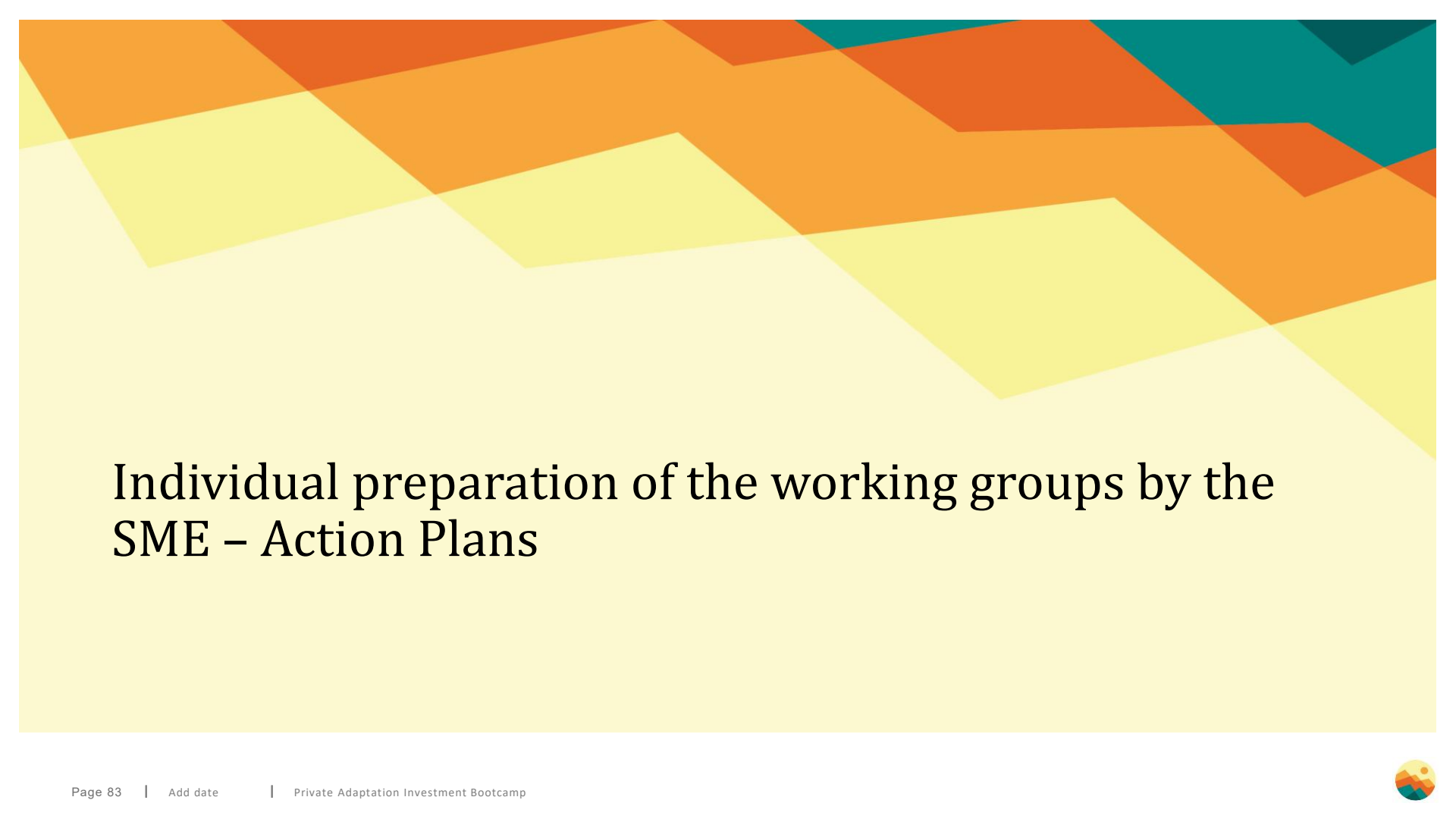


Group photo
Coffee Break & Dialogue Walk



Build an Adaptation & Resilience „Narrative“ for your Business





Individual preparation of the working groups by the SME – Action Plans



Company Action Plans

This company action plan is meant to document the steps or tasks you need to complete in order to

- ✓ Increase the adaptation relevance, narrative, and impact of your business;
- ✓ Increase your capacities for measuring adaptation impacts;
- ✓ Increase your capacities for strategic communication of your adaptation relevance and impact.

Purpose:

- ✓ Serve as a checklist to be updated and revised on a regular basis to
- ✓ Keep track of your progress towards your objectives
- ✓ Revisit and update the document before and after every PrivABoo SME core group meeting



Part 1) Adaptation Business Model Canvas

- ✓ visualize, assess, and adapt your business model's adaptation & resilience value-add in a clear and structured way.
- ✓ the canvas reflects the changes and characteristics of a business and of the context it operates in
- ✓ **a living document** which is subject to change and should undergo continuous revision, maintenance, and updates.



Adapted from the Impact Business Model Canvas which is a tool that supports the development of an idea into a viable business model!



Adaptation Business Model Canvas

Climate Context	Climate Change Phenomenon		Climate Change Vulnerability		Gender-Inequality
	Which climate change parameter does your innovation tackle? <ul style="list-style-type: none"> Country- / geography-specific 		Which harmful effects are caused by the climate change parameter for your customers? <ul style="list-style-type: none"> Pain points of your customers Sector-/industry specific Specific to your business's operating environment 		Are there harmful effects of climate change that only or disproportionately affect your <u>female</u> customers?
Business Solution	Customer Target Group	Your Business Solution	Your Value		Gender-Relevance
		Your consumer product, service, technology or other solution type that solves your customers' pain points	Core element of your solution that makes it unique and differentiated, Innovation potential, Change from the status quo / novelty aspect / unique selling point, contrast to competitors		<ul style="list-style-type: none"> Female representation among leadership & staff Female customer base and gender-specific requirements and needs that your business solution meets
Impact	Adaptation & Resilience Impact		Impact Indicator		Gender Indicator
	Social, economic or environmental benefits for your customers that result from your business solution		Indicator incl. unit of measurement that can be used to measure the benefits for your customers over time		Do you create an impact that is specific to your female customers only? Are your indicators sex-disaggregated?
Impact Opportunity	Baseline		Investment Opportunity		Gender-Impact Opportunity
	How many customers are currently benefitting from your solution and what is the accumulated impact your solution has created to date (approximate amount of the indicator before investment)?		What is your investment ask (amount) and if given, how many more customers can you reach and by how much will you increase the accumulated impact of your solutions (approximate amount of the indicator at the end of the investment period)? -> potential to scale impact with additional investment (your ask), impact growth strategy, Non-financial or social return on investment		How many more female customers can you reach and by how much will you increase the accumulated gender-specific impact of your solution?



Part 2) Action Plan

- ✓ A well-defined description of the **objective** to be achieved. Each objective should begin with an action verb, for example: *Increase, Decrease, Apply, Change, Start, Complete, Understand, Improve, etc.*

SMART Objectives should be:

- Specific: concrete, detailed, well defined
 - Measurable: numbers, quantity, comparison
 - Achievable: feasible, actionable
 - Realistic: considering resources
 - Time-Bound: a defined timeline
- ✓ **Actions/tasks/ steps** that need to be carried out to reach the objective
 - ✓ **Resources** (material, equipment, training, skills, support) needed to complete the tasks
 - ✓ **Success Indicators or Milestones** to mark completion of the actions / tasks / steps



Action Plan



Action Plan

Objective 1				
Actions / Tasks / Steps		Resources needed	Success Indicator or Milestone	Progress of Implementation
1				
2				
3				
4				

Objective 2				
Actions / Tasks / Steps		Resources needed	Success Indicator or Milestone	Progress of Implementation
1				
2				
3				
4				





Action Plans presentation and feedback


- You have 10 minutes to present your Action Plan to the group – **focus on the areas where you would most value the others' feedback!**
- 5 minutes, short Q&A for a better understanding of the Plan 🕒
- The group takes notes during the input and provides constructive feedback. Each working group member provides brief feedback.





Any questions?





Lunch 13:30

Meet at 14:30 in breakout rooms

Same groups as yesterday



Working groups

A (Name of the facilitator) Room	B (Name) Room	C (Name) Room	D (Name) Room
Name of the company	Name of the company	Name of the company	Name of the company
Name of the company	Name of the company	Name of the company	Name of the company
Name of the company	Name of the company	Name of the company	Name of the company
Name of the company	Name of the company	Name of the company	Name of the company
Name of the company	Name of the company	Name of the company	Name of the company



Coffee Break & Gallery Walk



Day review & Closing





Plenary discussion

What are your personal key learnings/findings from the workshop?

What have you learned from your peer SMEs?

How the development of a climate adaptation narrative could impact your businesses?



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Implemented by:

