

26th September 2024

“Climate Adaptation Bonds for Agriculture Resilience”

An agricultural PDBs specialized event



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ARIC | UNEP FI



About the Instructor: Alexander Wiese



Alexander Wiese

Close to 20 years of experience in structuring nature and climate related financial solutions and mechanisms across the globe. Advisor to Ministries of Economy and Finance around Nature & SDG Finance and climate change adaptation projects.

Thematic Bond Experience

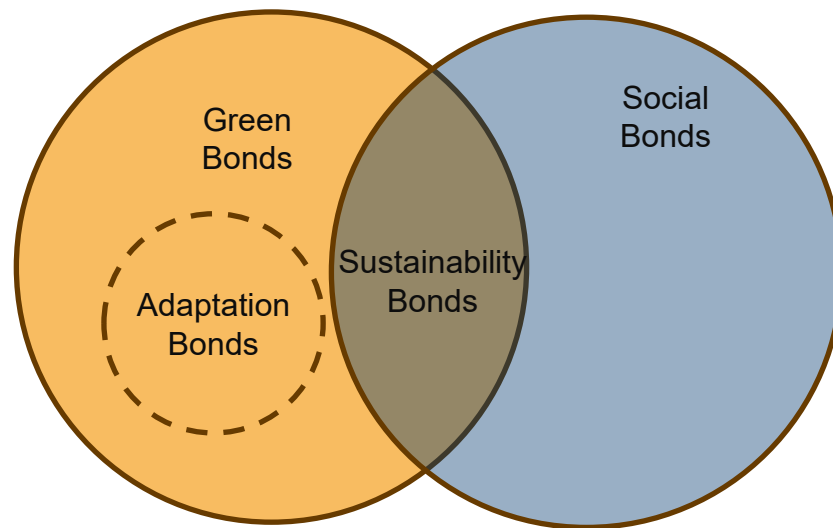
- **Uzbekistan's first SDG Bond**
- **Mongolia's SDG Bond**
- **Fiji's Blue Bond**
- **Vanuatu's Blue Bond**
- **Technical ADB's Blue Bond Accelerator**

Services

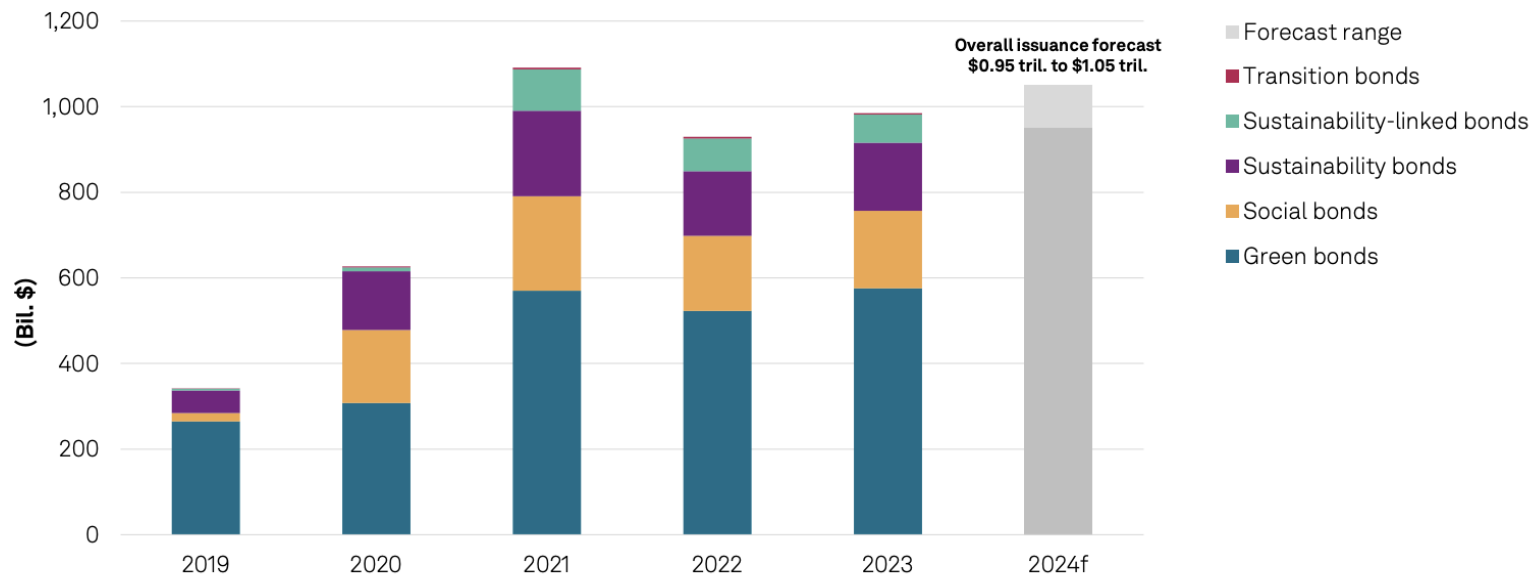
- **Thematic Bond Structuring**
- **Development of Bond Framework and SPO support**
- **Project evaluation and selection**
- **Issuance process support and outreach to underwriters**
- **Pricing negotiation support**
- **Allocation and Impact Reporting**

What are Adaptation Bonds

- Green, social, sustainability and SDG bonds so called thematic bonds are bond instruments where the proceeds are used for eligible projects with positive environmental and/or social outcomes.
- Thematic bonds usually carry the same rating as the issuer, as the responsibility of debt repayment lies with the issuer (and not the project).
- Adaptation Bonds are covered by ICMA's Green Bond Principles and can be seen as part of Green Bonds



High Investor Demand for Sustainable Bonds



Excludes structured finance issuance. f--S&P Global Ratings forecast. GSSSB--Green, social, sustainability, and sustainability-linked bonds. Sources: Environmental Finance Bond Database. S&P Global Ratings. Copyright © 2024 by Standard and Poor's Financial Services LLC. All rights reserved.

Adaptation Finance is Underrepresented

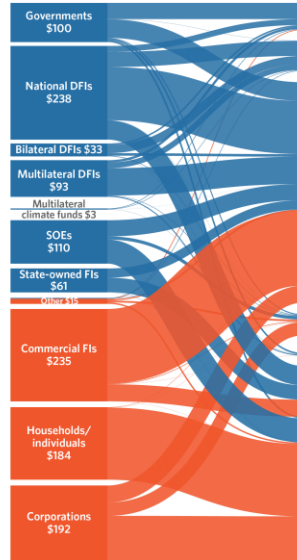
Figure ES1: Global climate finance flows in 2021/2022

LANDSCAPE OF CLIMATE FINANCE IN 2021/2022

Global climate finance flows along their life cycle in 2021 and 2022. Values are averages of two years' data to smooth out fluctuations, in USD billions.

SOURCES AND INTERMEDIARIES

Which type of organizations are sources or intermediaries of capital for climate finance?



Public Private

INSTRUMENTS

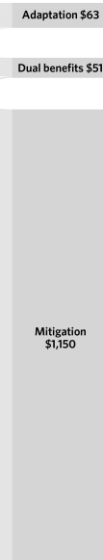
What mix of financial instruments is used?



1.27 TRILLION USD ANNUAL AVERAGE

USES

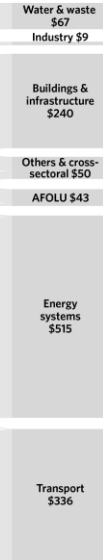
What types of activities are financed?



CLIMATE POLICY INITIATIVE

SECTORS

What is the finance used for?



"Other" public sources include export credit agencies and unknown public funds

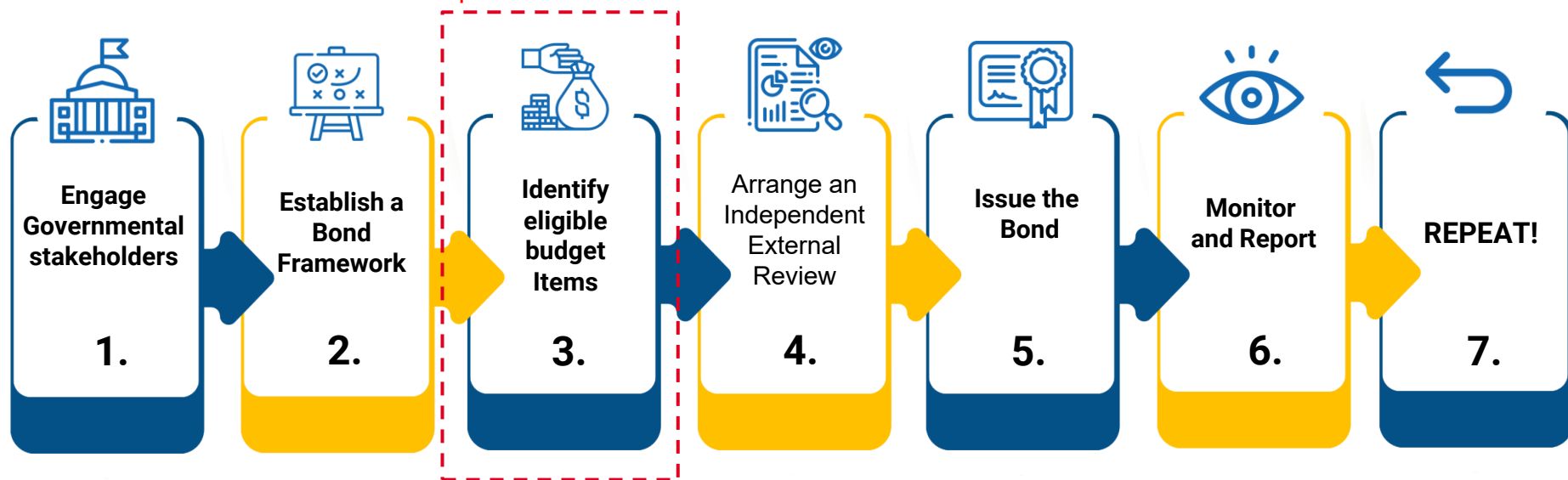
"Other" private sources include institutional investors, funds, and unknown

"AFOLU" stands for agriculture, forestry, other land use, and fisheries. "Others & cross-sectoral" includes \$66m unknown

Source: Climate Policy Initiative

Seven Steps To Issue A Thematic Bonds

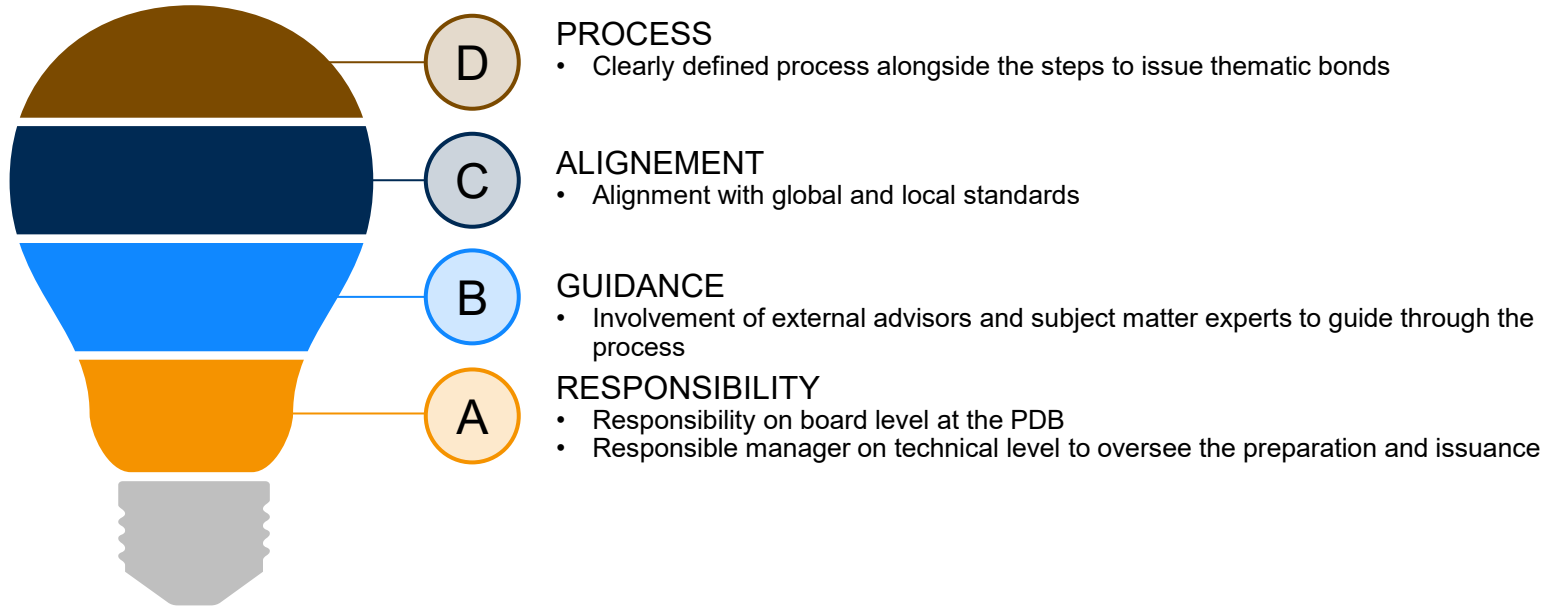
Focus of this presentation



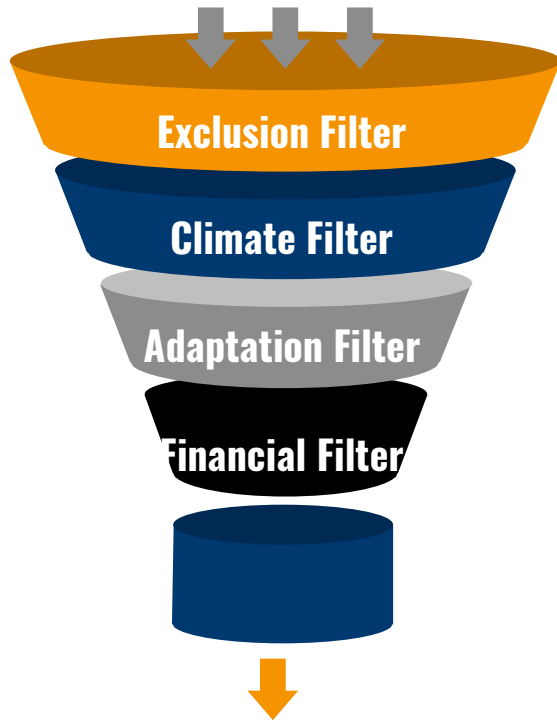
Challenges in Project Selection and Evaluation

- Adaptation and Resilience are under-researched compared to mitigation
- Difficulty in measuring climate risks and potential impacts on agriculture.
- Difficulty in selecting the right adaptation related sustainability performance targets and key performance indicators
- Unpredictable long-term climate models complicate project viability forecasts including challenges in estimating costs and benefits over time.
- Differences in local adaptation needs vs. global climate objectives.
- PDBs may struggle to align small-scale projects with broader climate bond standards.

Solutions to Overcome the Challenges



Schematic showcase of Project Selection



1. The process starts with a longlist of various projects to be financed by the bond
2. The first filter is the “exclusion filter”, which filters out any projects which have harmful effects on climate or society
3. The second filter is the “climate filter” which filters out non-climate related projects
4. The third filter is an “adaptation filter” which filters out any project which is not related to adaptation and resilience
5. Last filter is a financial filter which ranks all remaining projects according to the expected revenues

Adaptation Impact Assessment

Steps	Guidance
Assess the eligibility A&R solution(s)	<ul style="list-style-type: none"> Determine whether a project, product, service and/or practice enables to: <ul style="list-style-type: none"> Directly reducing the risks driven by climate-related events, or their associated adverse impacts on people, nature, assets, or other economic activities and/or Address systemic barriers to adaptation by removing information, technological, capacity and/or financial barriers to adaptation by others
Check 'do no harm' of the A&R solution(s)	<ul style="list-style-type: none"> Evaluate both the A&R solution(s) offered through the project itself to evaluate that they do not <ul style="list-style-type: none"> Undermine the achievement of the 1.5°C goal of the Paris Agreement. Preference should be for A&R solution(s) minimally GHG-emissions intensive within a specific context and for those solutions simultaneously delivering on adaptation and mitigation goals. (Through active engagement, investors can support the decarbonisation of A&R solutions). Cause adverse effects on social, environmental, and economic systems. Determine the expected positive A&R impacts over the life of the investment, based on actual data where available given the stage of a project business maturity)
Measure A&R impact results	<ul style="list-style-type: none"> Measure, monitor and manage positive adaptation impacts using qualitative and/or quantitative metrics over the holding period.

Checklist for Assessing Adaptation Investment Opportunities

This checklist guides VC and PE investors in:

1. Identifying and assessing companies offering A&R solutions and;
2. Quantifying the proportion of the investment qualifying as climate adaptation finance

In meeting the checklist's requirements, investors can ensure investments deliver a positive climate impact and align with climate finance qualifying criteria.



Climate Finance Qualification

- How much of your investment qualifies as climate finance?
- Use a 'use of proceeds' approach to quantify the proportion.



Screening



Evaluate the A&R solution(s) provided by the target project:



Does the solution(s) help prepare, prevent, respond, and recover from climate-related shocks and stressors (e.g., floods, droughts, extreme heat)?



Ensure the A&R solution(s) aligns with the investment strategy:



Does the solution(s) align with the A&R objectives set out in the investment strategy?

Due Diligence

Ensure the target project and A&R solution do not cause harm:

- Does the project manager have the capacity and track record for identifying and managing relevant climate and ESG risks? Is it compliant with relevant regulations and industry standards?
- If not, define a plan of action to address the identified gaps.

Evaluate potential unintended consequences:

- Could the undermine the achievement of the Paris Agreement's 1.5°C goal or lock in GHG emissions? Could it increase social vulnerability or worsen conditions for marginalized groups?
- If so, define a plan of action to address these issues (maladaptation).



Expected A&R Impact

Define and assess the expected A&R impact:



Have you assessed the expected A&R impact against the Five Dimensions of Impact?

What: What impact is the project's A&R solution contributing to, and how?

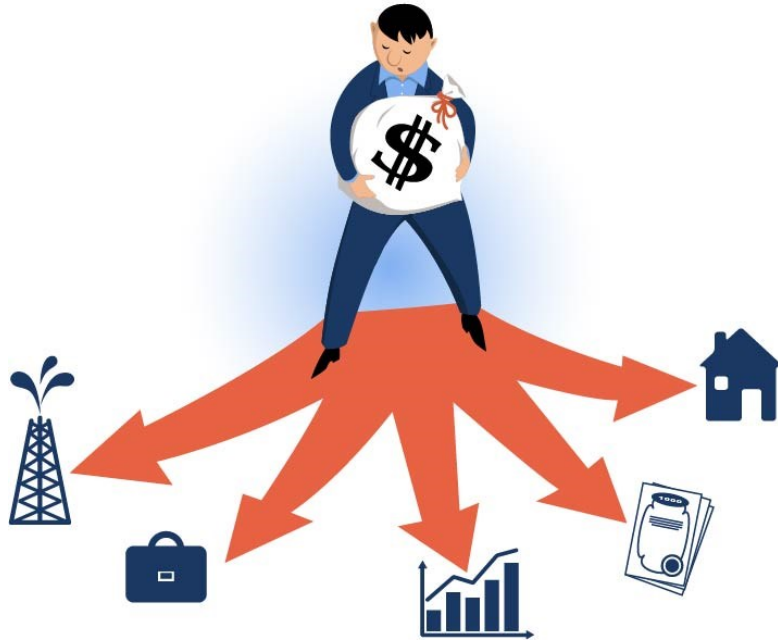
Who: Which stakeholders are experiencing the impact (people, planet, economy)?

How much: How many stakeholders experience the impact, and what is the degree of change?

Contribution: How could the investor support the achievement of the intended impact?

Risk: What is the likelihood that the impact will differ from expectations, and how are the risks mitigated?

Investment Decision



Investment decision-making:

- Is the A&R impact case, along with the climate finance qualification and quantification, integrated into the memo submitted to the Investment Committee?

Preparation for Allocation and Impact Reporting



Integrating A&R impact metrics:



Have you included the requirement to report on A&R impact metrics in the shareholder agreement?

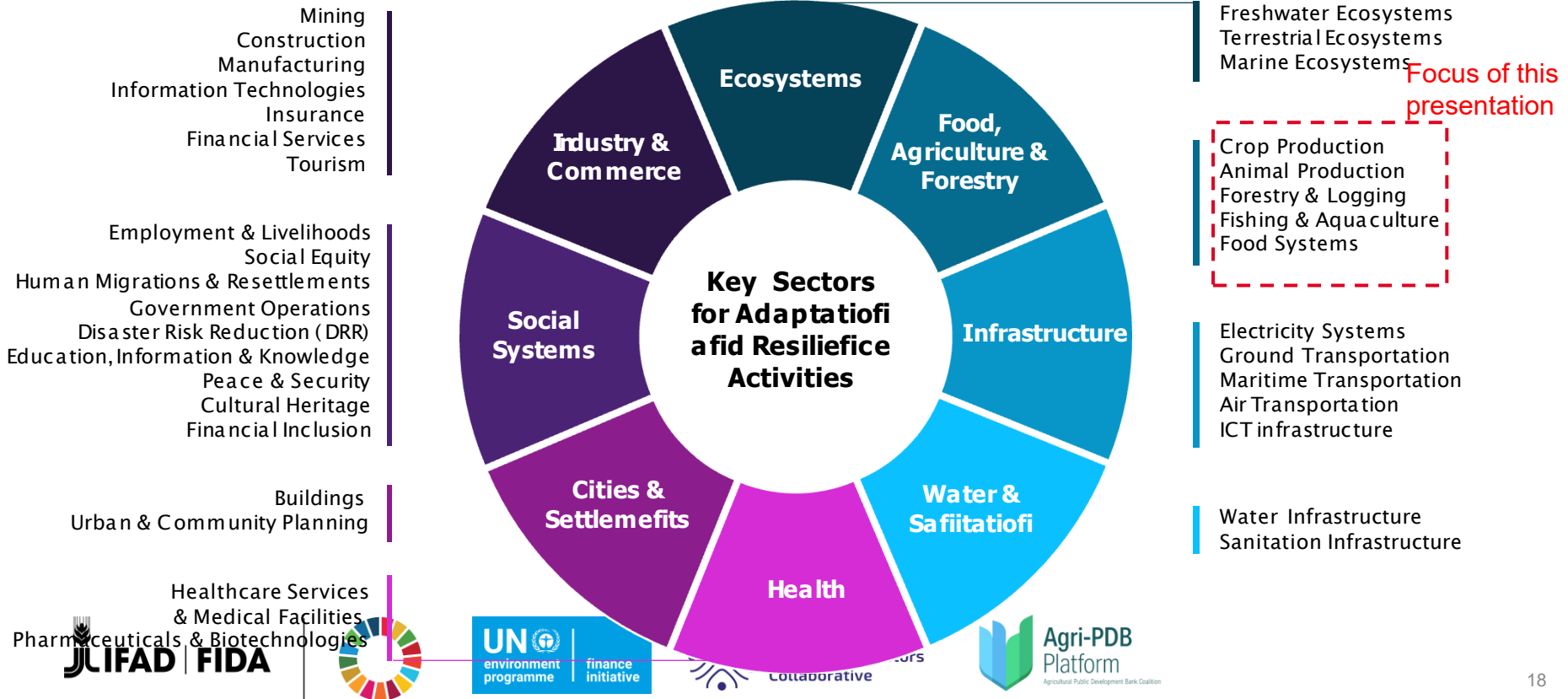


Developing an ESG action plan:



Have you included requirements to report on progress against relevant climate, ESG, and GHG mitigation actions in the legal agreement?

Overview of Adaptation Thematic Sectors



Eligible Adaptation Criteria for Agriculture

Example A&R solutions	Climate-driven impacts	Examples of physical risk drivers
<ul style="list-style-type: none"> Drought-resistant crop variants to increase the ability of crops to survive drought periods. Water-efficient irrigation technologies e.g., drip irrigation to optimize water use in drought-prone contexts. 	Decline in yields quality and/or quantity	Flooding Droughts
<ul style="list-style-type: none"> Weather forecasting analytics to enable farmers and agribusinesses to prepare for extreme weather conditions. 	Crop loss	Flooding Wildfires Extreme storms Hailstorms Extreme heat
<ul style="list-style-type: none"> AI-powered pest monitoring and forecasting to help prepare for pest outbreaks 	Increased pest and disease occurrence	Rising temperatures Changes in precipitations patterns
<ul style="list-style-type: none"> Energy efficient cold storage facilities to safeguard perishable food from extreme temperatures avoid supply chain disruptions 	Post-harvest losses	Extreme heat
<ul style="list-style-type: none"> Climate insurance to help farmers recover from the impacts of adverse climate events. 	Crop loss	Flooding Wildfires Extreme storms Hailstorms Extreme heat

Thank You

Contact

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