ADAPTATION FUND

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Adaptation Fund Board
Project and Programme Review Committee
Thirty-Fourth meeting
Bonn, Germany, 8-9 October 2024

Agenda Item 14

EXPLORING OPTIONS ON THE FURTHER USE OF ADAPTATION FUND RESOURCES TO FUND INNOVATION

Background

1. At the thirty-third meeting of Project and Programme Review Committee (PPRC) of the Adaptation Fund Board (the Board), the secretariat presented the document AFB/PPRC.33/42 “Options on the further use of Adaptation Fund resources to fund innovation” that presented tools and guidance for national implementing entities of the Adaptation Fund (the Fund) with a view to supporting project design and faster access to small grant innovation funding on the basis of the project design elements, as well as how to consider further how the Fund’s resources could be used to fund innovation.

2. Following the discussion that took place at the 42nd meeting of the Board around the potential of innovation to fill the adaptation gap but also the challenge of the adaptation finance gap, and having considered the recommendation of the PPRC, the Board decided:

(a) To request the secretariat to further explore opportunities to fund innovation;

(b) To request the secretariat to present its report for consideration by the PPRC at its thirty-fourth meeting.

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(Decision B.42/39)

Context

3. The Innovation Facility under the Fund’s innovation pillar was approved at the Board´s thirty-first meeting (Decision B.31/32). The Facility offers small and large grants through three different windows. It builds on the Fund’s core strengths and comparative advantage as a highly functioning and innovative fund established to finance concrete adaptation projects in developing countries that are particularly vulnerable to climate change.

4. The Adaptation Funds’ Medium-Term Strategy (MTS), for the period of 2018-2022, and its Implementation Plan (IP) introduced windows that may also be served by leveraging non-public resources, namely under the Innovation Pillar of the MTS. The innovation window is therefore especially useful for attracting private sector and other investments in adaptation. The IP of MTS II (2023-2027), adopted at thirty-ninth meeting of the Board, mentions the AFB/PPRC.33/42 - 3 - delivery method under its expected result two (ER2), to “Enhance support for scaling up innovation projects through exploring establishment or use of additional innovative financial instruments to enable blended finance arrangements”.

5. Under the innovation window, the Fund seeks to “accelerate, encourage and enable innovation for effective, long-term adaptation to climate change”. Under the Medium-term Strategy II (2023-2027), the innovation pillar outlines four expected results (ER) at the strategy level, as follows:

*1. **New innovations and risk-taking encouraged and accelerated**: Development of innovative adaptation practices, tools and technologies encouraged and accelerated, including solutions with high impact potential even if it comes with a higher risk of failure.*

*2. **Successful innovations replicated and scaled up**: Innovative adaptation practices, tools technologies that have demonstrated success in one country spread to new countries/regions or are scaled up from smaller to larger scales.*

*3. **Access and capacities enhanced for designing and implementing innovation**: Access and capacities enhanced, knowledge generated, and awareness raised, for implementing entities and non-accredited actors to design and implement innovative adaptation solutions.*

*4. **Evidence base generated and shared (linkage with learning and sharing pillar)**: Evidence on the conditions that lead to successful innovation generated and shared, and partnerships, iteration, learning and adaptive management encouraged. Evidence of effective, efficient adaptation practices, products and technologies generated as a basis for implementing entities and other funds to assess scaling up.*

6. There are many public and private sector funding instruments in use today that are commonly used at the different stages of the innovation cycle (i.e. research & development, demonstration, deployment, diffusion). In the context of the Fund's innovation projects, the assumption is that with successful innovations generated or supported (through namely scaling up and replication) by the Fund, it is expected that they would gradually progress to the subsequent stages in the innovation cycle. However, various obstacles, such as lack of affordable finance, public support or innovation-friendly policies, among others, may obscure the pathway between the Fund's support and opportunities beyond the Fund.

7. The above-described challenges and opportunities also drive several items in the Implementation Plan for the Innovation Pillar under MTS-II, where a need has been identified to explore options of additional and external finance and other support as to specifically underpin and support ER 2 (Successful innovations replicated and scaled up).

8. This document presents opportunities to fund innovation, identified with the support of the implementing entities who provided inputs based on their experiences and needs, with the purpose of supporting the discussions of the PPRC and the Board on advancing the innovation work at the Fund.

Analytical Approach

9. To continue to further explore opportunities to fund innovation as requested under decision B.42/39, the secretariat consulted its implementing entities with the aim to identify the challenges and opportunities for supporting innovation in adaptation from the perspective of the Fund's implementation partners specifically.

10. This was done mainly through a survey that asked for IEs perspectives regarding support for innovation and proposing options, complemented by targeted interviews towards a

more complete the analysis. The questions were aimed at eliciting insights regarding how the Fund could better support innovation, especially in terms of funding opportunities, but not necessarily limited to financial support only. In other words, the aim was to identify direct support needs for projects and scaling up, as well as enabling environment more broadly, such as support for strengthening the innovation ecosystem[1] and readiness-building activities. The intent was that these insights would be helpful in furthering the discussions at the Board and informing its decision on how the Fund can better support innovation in adaptation. See survey questions in Annex I.

11. The survey was distributed through an online survey platform targeting eleven of Adaptation Fund's implementing entities including four NIEs, one RIE and six MIEs. The IEs were selected based on whether they had demonstrated an active involvement or interest in innovation by at least attempting to access innovation funding from the Fund. All provided responses, and, furthermore, two of the MIEs had two respondents each. Responses were treated confidentially. Any statement associated with any responding entity has been approved by the respondent. See survey responses in Annex II.

12. The survey complements a series of interviews and discussions with other funders of innovation. See Annex III for the list of actors that the innovation team has on-going dialogues with.

Findings

13. Below follows a summary of the survey findings. Respondents highlighted several issues, namely around challenges in funding innovation for adaptation, as well as promising opportunities to fund innovation, some concrete examples, need for external funding sources, need for generating revenue post-project, and beneficiaries' access to additional finance. The respondents also provided suggestions around Adaptation Fund's potential role and actions related to these issues.

Finding 1: Challenges in Funding Innovation

14. The main challenges in funding innovation were identified as:

(a) Limited Risk Appetite: Innovation projects are perceived as high-risk, leading to lacking stakeholder buy-in and funding hesitancy despite potential benefits.

(b) Limited Access to Affordable Capital: A general lack of sustainable public and private funding and financing sources for adaptation and innovation is noted. MSMEs, startups and smaller local innovators in developing countries lack access to concessional capital, especially grants needed in early stages but also capital to scale. Hard currency financing poses affordability risks.

[1] An innovation ecosystem comprises enabling policies and regulations, accessibility of finance, informed human capital, supportive research markets, energy, transport and communications infrastructure, a culture supportive of innovation and entrepreneurship (IDIA, 2021).

(c) Capacity Building: There is limited capacity among local actors to source, ideate and identify innovation solutions for adaptation. Developing human capital and innovation expertise within local enterprises and unconventional actors (including communities), regulatory bodies, and investors is crucial for viable innovation. Lacking innovation capacity leads to difficulties in advancing local innovation, hinders project applications and increase the risk of low-quality proposals.

(d) Limited Enabling Environment: Inconsistent or unclear regulatory frameworks and policies, and presence of institutional support deficiencies hinder innovation deployment and scaling.

(e) Small maximum project size at the Fund: A higher threshold would allow projects to achieve higher impact in promoting and de-risking innovation in developing countries, whose innovation ecosystems are often at nascent or very early stages.

Finding 2: Promising Opportunities to Fund Innovation

15. Respondents identified various promising opportunities to fund innovation for adaptation:

(a) Early-Stage Support: Incubators, accelerators, seed funding, grants, crowdfunding platforms, competitions, and prizes provide crucial early-stage support.

(b) Public-Private Partnerships: Collaboration between governments, private sector, and research institutions fosters innovation and resource mobilization.

(c) Impact Investment Funds: Funds focused on social and environmental impact invest in early-stage companies addressing climate resilience.

(d) Corporate Venture Capital: Corporations invest in startups developing innovative solutions, including those enhancing climate resilience.

(e) Innovation Challenges and Hackathons: Competitions and hackathons incentivize the development of innovative solutions, often leading to early-stage support.

(f) Corporate Incubators and Accelerators: Corporations support startups working on sustainable and resilient solutions, providing funding, mentorship, and market access.

(g) Blended Finance Initiatives: Combining public and private funds mobilizes private sector investment for climate adaptation projects.

(h) Corporate Social Responsibility (CSR) Initiatives: Corporations fund community projects that improve water security and climate resilience.

(i) Insurance and Risk Management Innovations: Innovative insurance products help vulnerable communities manage climate risks.

(j) Innovation sectors: Agriculture, renewable energy, human security, and research and academia among others hold potential to fund innovation for adaptation.

(k) Demand-driven approach: Often innovation is supply-driven. A more demand-driven approach could be applied which is promoting locally lead adaptation while connecting value chains to potential customers (e.g., communities).

(l) AF financing and capacity building can crowd-in new sources of finance: AF beneficiaries are believed to improve their creditworthiness and increase accessibility to external public and private sources. Under the Fund's AFCIA portfolio some grantees have found new sources of finance post project.

Finding 3: Outcomes and Impacts of Concrete Examples

16. Respondents shared examples of successful innovation funding. Some of those include:

(a) The Adaptation Innovation Marketplace connects entrepreneurs with capital and research, supporting innovation scaling in the areas of resilient housing, ecosystem-based adaptation etc. The ecosystem of support helped many innovations to make their way into capital infusion.

(b) A project in the Nexus of child nutrition and food security increased yields from school gardens which improved school attendance and interest in the environment and agriculture and increased the nutritional food offering from canteens and reduced food bills for the schools.

(c) A Fund's Small Innovation Grant Project in Armenia fostered digital environmental education for schoolchildren, increasing their knowledge, motivation and ideation for climate action.

(d) The WMO HydroHub Innovation Calls funded five projects that operationalized innovative technologies for hydrological monitoring, increasing monitoring capacity and improving data reliability to benefit climate change adaptation and resilient livelihoods.

(e) The AFCIA portfolio includes successful projects in water management, agriculture, and early warning systems, as well as forging new partnerships while connecting MBA and Master students with local NGOs/CSOs provides local actors with access to new information, capacity building, and research guidance. Some grantees have been successful in raising grant-based finance after their AFCIA experience as well as exploring the option of low-rate debt finance in local currency.

Finding 4: Need for External Financial Sources

17. Respondents identified a need for external financial sources to enhance impact or scale of projects. Various types of external sources and partners that could be beneficial to engage with include:

(a) Impact Investment Funds: Engaging with impact investors specializing in climate challenges in developing countries.

(b) Corporate Partnerships: Collaborating with corporations investing in innovative energy and sustainability solutions.

(c) Finance Institutions (DFIs): Partnering with DFIs and local financial institutions to explore and access tailored loan products and services, guarantees, and risk mitigation instruments while exploring options for tailored lending products.

(d) Philanthropic Foundations: Seeking support from foundations funding environmental resilience and climate adaptation strategies.

(e) Crowdfunding Platforms: Utilizing platforms to raise funds from a broad audience interested in supporting climate adaptation innovations.

(f) Multilateral Climate Funds: Explore synergies and complementarities among the main climate finance mechanisms.

Finding 5: Generating Revenue Post-Project

18. Respondents identified a need for setting up ways to generate revenue post-project to ensure sustainability. Various potential schemes, sources, and approaches to generate such revenue were exemplified:

(a) Technology Transfer and Licensing: Licensing developed solutions to local and international partners.

(b) Fee-for-Service Models: Providing ongoing use and maintenance services for adaptation technologies.

(c) Public-Private Partnerships (PPPs): Joint deployment and revenue-sharing arrangements.

(d) Monetizing Project Outcomes: Accessing climate finance mechanisms, offering training and capacity-building services, developing resilience tourism initiatives,

providing value-added services and shared benefits across value chains and actors, and seeking philanthropic and corporate sponsorship.

(e) Plan for revenue generation: Strategically plan for revenue generation post-project and integrate project outcomes into local economies. Explore government and public support options early on.

Finding 6: Beneficiary Access to Additional Finances

19. Respondents highlighted the need for beneficiary access to additional finances directly, post-project, and identified various sources of finance for this purpose:

(a) Microfinance and SME Loans: Tailored loans to meet the needs of beneficiaries, and low-rate debt finance such as accessing carbon credits. Connect beneficiaries and results with financial institutions and markets.

(b) Impact Investment Funds: Funds focusing on climate adaptation challenges.

(c) Climate Funds: Accessing funds through specialized programmes.

(d) Grants: Support from philanthropic foundations and development agencies, crowdfunding, and budgetary support.

(e) Revenue Generation: Service provision, ecosystem services payments, and corporate CSR initiatives.

(f) Community-Based Financing Mechanisms: Community savings groups and revolving funds to empower local communities to invest in adaptation measures.

Finding 7: Proposed role and actions by the Adaptation Fund

20. The Adaptation Fund is encouraged to play a more active role in supporting innovation for climate adaptation through various measures:

(a) Funding

(i) Increase Funding Thresholds: Raise the limit for innovation window financing to allow for projects with greater impact.

(ii) Maintain Risk Appetite: Continue to support high-risk innovation projects, acknowledging the potential for failure but also the potential for learning.

(iii) Maintain Full Cost of Adaptation Reasoning: This approach simplifies project structures and enables greater access to funding for innovation projects.

(iv) Increase Flexibility in Funding Terms: Offer more flexible funding terms to accommodate the unique needs of innovation projects.

(v) Develop Innovative Financing Mechanisms: Explore new ways to finance innovation, such as blended finance initiatives and impact investment funds.

(vi) Support Inclusive Funding Practices: Ensure that a broad range of innovators, including marginalized communities, benefit from funding opportunities.

(vii) Bridging capital needs: Enable systematic connection of entrepreneurs, ventures, and projects with financial partners.

(viii) Transition in between programmes: Promote a smooth transition in between the Fund's programmes and pair projects with current or previous initiatives via horizontal collaboration.

(ix) Multilateral Climate Funds: Support from the Multilateral Climate Funds in coordinating and aligning project development and approval processes for increased impact and scale-up of projects.

(b) Capacity Building:

(x) Increase Focus on Capacity-Building Programs: Develop tailored training modules and mentorship programs specifically for MSMEs and startups in developing countries.

(xi) Support Capacity Building within Local Enterprises, Regulatory Bodies, Policy Makers, and Investors: Help develop viable and innovative business models, effective policies and regulations, and financial instruments.

(xii) Training for implementers: Provide training sessions for project implementers on pitching to investors, project financing models, and navigating the financial landscape for climate adaptation projects.

(xiii) Capacity building enables access to finance: Projects (and beneficiaries) do become more credit worthy which helps to crowd in additional financing. In this way AF grants and projects can be used as a de-risking factor.

(c) Partnerships, Platforms, Events and Knowledge Sharing:

(xiv) Facilitate Partnerships: Organize networking events and create online platforms to connect local enterprises with international organizations, private investors, and other stakeholders.

(xv) Support Knowledge Sharing: Systematically learn from innovation projects, synthesize lessons learned, and disseminate them with partners and the broader ecosystem which will contribute to reduce risks associated with innovation for adaptation.

(xvi) Networking Platforms: Create online platforms or forums for project implementers, private investors, international organizations, and other stakeholders to connect, share knowledge, and explore collaboration opportunities.

(xvii) Matchmaking Events: Host events that bring together AF-funded projects and potential investors or partners to facilitate networking, partnership building, and the exchange of innovative ideas.

(xviii) Fund raising events: Arrange fund raising to reach out to donors and philanthropy.

(d) Policy Advocacy:

(xix) Enhance Policy Advocacy Efforts: Work closely with governments to create enabling environments for innovation, including providing technical assistance to develop supportive policies and regulatory frameworks.

(e) Post-Project Sustainability:

(xx) Support Revenue Generation: Help beneficiaries develop sustainable business models and access additional sources of finance to ensure the long-term viability of projects.

(xxi) Connect Beneficiaries to Value Chains and Markets: Facilitate connections with market actors, financial institutions, and government agencies to support post-project revenue generation and sustainability. The AF financing can be used to create assets, productivity, livelihoods, and jobs to pave way for value-chain and market development.

Conclusion

21. The findings illustrate how the Adaptation Fund can take a more proactive role in supporting innovation for climate adaptation in various areas. They survey has contributed to nuance and enrich the understanding of how the Fund based on the needs of the IEs more effectively and relevantly could use its resources to fund innovation for adaptation including:

(a) Building innovation capacity:

(i) Building innovation capacity and the enabling environment for innovations are high on the list of needs which suggests that it should remain a main area of focus for the Fund going forward.

(ii) The recent annual IE seminar in September 2024 was dedicated, in focus, to innovation as a start to other potentially interesting tracks to strengthen the country innovation ecosystems and local innovation capacities in service of adaptation. Overall, the event was well received by participants and encourage a similar setup on an on-going basis in collaboration with the Fund's Readiness Team

(iii) In order to continue the support and fostering of innovation ecosystem at regional and national levels, the already on-going efforts at the Fund to forge partnerships with innovation expert organizations as co-facilitators could prove to be important for future innovation events and seminars.

(iv) Continued readiness building and training for innovation could potentially in focused workshops respond to identified challenges in terms of sourcing ideas for innovation and generating proposals that meet the requirements of the Fund, as well as train IEs in some of the suggested ideas including new resilient business models, to assist them in navigating the financial landscape as well as to develop financially sustainable revenue models and approaches in projects.

(b) Funding:

(i) It is encouraging that the Fund's innovation beneficiaries and projects are already attracting external sources of funding such as support from philanthropic foundations and development agencies, and crowdfunding among other. Some are even exploring the more complex options, such as debt finance.

(ii) The expressed lack of finance and access to external sources of funding for innovation for adaptation also emphasize the importance of capturing the synergies and complementarities across the MCFs while supporting the complementarity and coherence of funding opportunities offered the MCFs, including in terms of scale, modalities, and process.

(iii) The Fund is already enabling scaling up generally as well specifically among its innovation windows, i.e., small innovation grants can be scaled up using the large innovation project option.

(iv) A proposed bundling pilot in-between the recently increased Learning Grant and Small Innovation projects offers enhanced access to funds in a simplified and consolidated process.

(c) Partnerships, Platforms, Events and Knowledge Sharing:

(i) The findings mention the importance of building new partnerships and networking to bridge new funding and opportunities for innovation beneficiaries and projects but also the importance of knowledge sharing as a way of reducing the associated high risk in innovation.

(ii) The Fund's on-going efforts in networking with funders and other relevant actors in innovation are intended to enhance the pipeline of higher-quality innovation ideas into the Fund's operations, as well as to bridge the Fund's successfully proven concepts and projects to other sources of funding.

(iii) The existing communities of practice (such as the CPDAE and the adaptation innovation network of experts and champions convened at Innovation Days/Adaptation Futures, etc.) could contribute to share lessons learned that could help overcome identified challenges and capture opportunities of funding innovation for adaptation.

(iv) Potentially, the Fund could facilitate participation in matchmaking and pitching events to attract external sources of funding and investments.

(d) Policy advocacy:

(i) While the Fund is strictly country-driven which may not give much room for direct policy advocacy, the innovation windows could continue to enable and encourage support of National Innovation Systems and strengthen innovation criteria and indicators under its Strategic Results Framework that could promote enhanced enabling environments for innovation for adaptation.

(e) Post-project sustainability:

(i) The emphasized finance gap for innovation for adaptation underlines the potential in supporting the Fund's project grantees to gain capacity to successfully develop financially sustainable business models, more efficient processes, generate and increase income streams, which could lead to more successful outcomes and sustainability beyond the life of a project.

(ii) The importance of Technical Assistance and ongoing support, including dedicated financial support for such assistance, are key for this, and the Fund could increase its support to the IEs, for example trainings and guidance for IEs to design projects that emphasize support in these domains.

(iii) IEs could be encouraged to use the Fund's Learning Grant funding option to help document lessons learnt in terms of exceptionally successful and

sustainable approaches which could be shared and distributed across the Fund’s innovation community.

Annex I: Survey questionnaire.

Q1	Your name
Q2	Your title
Q3	IE Name
Q4	Contact information (email)
Q5	I am willing to be contacted for further information. I understand that I will be asked for my permission to attribute any information provided in a way that could be identifying for me and/or the entity.
Q6	Are there challenges in funding innovation? What are the challenges? What could the AF do better to help overcome those challenges?
Q7	What are some promising opportunities to fund innovation for adaptation? Are there concrete examples where this has been done in practice? (They do not have to be from your organization's portfolio).
Q8	If there are such concrete examples from your organization's project portfolio, what were the outcomes and impacts?
Q9	What could the AF do better to help to connect AF-funded projects and programs to those opportunities?
Q10	Based on your experience, have you identified a need for external financial sources to enhance the impact or scale of your projects? If so, please specify what types of financial sources or external partners you believe would be beneficial to engage with? Please list them.
Q11	Based on your experience, have you identified a need for setting up ways to generate revenue post-project, in order to ensure the sustainability of the project outcomes? Can you identify potential schemes and sources to generate such revenue?
Q12	Based on your experience, have you identified a need to ensure that the beneficiaries of the project specifically can have access to additional sources of finances directly, post-project? Can you identify which sources of finance would be needed?

Annex II: Survey response.

Q6: Are there challenges in funding innovation? What are the challenges? What could the AF do better to help overcome those challenges?

MIE1
Currently, AF's large innovation window financing is limited to 5m USD. A higher threshold would allow projects to achieve higher impact in promoting and de-risking innovation in developing countries, whose innovation ecosystems are often at nascent or very early stages. Higher funding volume per project would facilitate provision of a comprehensive range of services at transformational scale, including 1) technical assistance to prepare the enabling environment around innovation for adaptation and policy and institutional levels, 2) direct support to innovators to validate the technology and business models, 3)create financing mechanisms to increase private finance to complement AF's grant, and 4) robust knowledge management and creation to communicate the learnings.

MIE1
The adaptation financing needs are ever-increasing by the day. In developing countries, the governments are forced to finance adaptation from very limited public resources. Therefore, there is a huge opportunity to strategically deploy the little available international public resources to unlock the ingenuity and creativity of the private sector to recognize the business potential in financing adaptation and scale-up. In this vein, the Adaptation Fund can support carefully selected initiatives that would unlock innovation and help the private sector to systematically invest in climate adaptation. This would to a significant extend address the adaptation financing gap. Challenges to innovation: 1. Limited Risk Appetite: Innovation projects are associated with higher risk, which inevitably entails higher failure rates. The association of elevated risk and failure rates with innovation is often underappreciated and misunderstood within the funding community. 2. Limited Access to Affordable Capital: Many MSMEs and startups in developing countries lack access to sufficiently concessional capital to develop and scale innovative solutions, especially grants that are needed at a very early stage in the innovation value chain. Finance is often provided in hard currency which represents a major affordability risk for innovation project proponents. Grant and equity-type instruments, which are more suited to funding innovation are limited in availability. 3. Capacity Building: There is a need to develop the human capital / capacity within local enterprises, regulatory bodies, policy makers and investors to develop viable and innovative business models, effective policies and regulation, and financial instruments. Capacity building also requires 4. Limited enabling environment: Inconsistent or unclear regulatory frameworks can hinder the deployment and scaling of innovative solutions. While the Adaptation Fund is already engaged in several initiatives to support these areas, there are potential opportunities for enhancement: Maintain Risk Appetite: The AF is encouraged to continue its risk-taking approach with regards to innovation; fully cognizant of the higher failure rates but also the greater potential to harness lessons learned. Maintain Full Cost of Adaptation Reasoning: The approach enables greater access to funding for innovation projects and simplifies project structures. This enables more accountability and transparency, which are important in the context of innovation. Support Capacity Building: The AF could increase its focus on capacity-building programs that specifically target the needs of MSMEs and startups in developing countries. This might include developing tailored training modules and mentorship programs. Facilitate Partnerships and Knowledge Sharing: The AF could play a more active role in facilitating partnerships by organizing networking events and creating online platforms that connect local enterprises with international organizations, private investors, and other stakeholders. Given the higher failure rates associated with innovation projects, it is important that the lessons are systematically learned, synthesized, disseminated with partners and with the broader ecosystem. It will be

important for the AF’s structure and processes to ensure the lessons learned inform the design of new innovation projects. Policy Advocacy: The AF could enhance its policy advocacy efforts by working closely with governments to create enabling environments for innovation. This could involve providing technical assistance to develop supportive policies and regulatory frameworks. Innovation Plurality: Maintain an open approach to innovation including policy, financial, institutional, regulatory, business model and technological innovation.

MIE2
We are seeing the following challenges: > Lack of funding and financing sources from public sector, private sector, funds, etc. > Lack of financial sustainability of many social impact ventures which are thus not able to meet the requirements of the venture capital market.

MIE3
Key challenges are related to sourcing of ideas/projects given that often climate risks and impacts screening is not used as a departure point for innovations. Capacity building and feasibility study support would help curate adaptation specific innovations. Another challenge is lack of technical capacity to implement ideas and innovations that will continue to incorporate risks as they evolve.

RIE1
- private sector involving - lack of capacity building on innovation funding mechanism - areas of interest.

MIE4
Calls are too tight in scope and unpredictable timing.

NIE1
Funding innovation faces several significant challenges, such as high risk and uncertainty, long time horizons, scalability issues, and limited EE/IE expertise. These factors make traditional donors hesitant to support innovative projects, particularly in fields like climate adaptation. Regulatory barriers and institutional support deficiencies further complicate the landscape, while smaller innovators in developing regions often struggle to access necessary funding. The Adaptation Fund can address these challenges by increasing flexibility in funding terms, offering comprehensive technical assistance, and fostering partnerships with diverse stakeholders. Developing innovative financing mechanisms and supporting knowledge sharing can also enhance the ecosystem for innovation. Focusing on inclusive funding practices ensures that a broad range of innovators, including marginalized communities, benefit from these initiatives. By implementing these strategies, the AF can significantly contribute to advancing sustainable development and climate resilience.

NIE2
Our recent experience shows that the most difficult part is to define and profoundly represent the linkages of proposed innovative idea/solution to climate adaptation. A specific technical assistance for the assessment of the potential of innovative idea/solution and further for the elaboration of its climate rationale could be of help.

NIE3
Yes there are challenges. From a public service point of view, the resources are inadequate to meet the country's existing adaptation needs while adaptation is not an attractive investment option for the private sector. At the community level, communities often lack either the financial resources or the technical know-how to advance adaptation innovation. -Increase resources available to countries -Further expand the number of Direct Access Entities -Incentivize

innovation initiatives (eg give Brownie Points for innovation in project proposals or as stand alone proposals).

NIE4
The main challenges in financing innovation are: - The consistency of this innovation using Hi-Tech means and methodologies; - The cost of this innovation; And - Stakeholder buy-in. To remedy this, the FA can make human and material resources available to innovative projects to better reduce innovation shortcomings, create an accessible innovation fund and encourage stakeholder involvement.

MIE5
Yes. Innovation process includes risks and potential failures. Outcomes from innovation projects are often unknown so one must acknowledge that failures can occur. Additionally, achieving long-term impact requires solid sustainability plans and financial resources. More flexibility is needed in developing innovation-related project proposals, especially when it comes to justifying USPs. Furthermore, innovation funding needs to take into account IP rights and business opportunities for private sector.

MIE6
Challenges include the following: - Low capacity at local level to apply for funding (great majority of applications remains of low quality making them ineligible for funding). Some external support is needed to build strong applications - Ideation process often remains with conventional players including governments, big NGOs... It is harder to reach non-conventional stakeholders including universities, local authorities, civil society org, community groups... additional support will be needed to reach out to non-conventional stakeholders, identify local innovations and support applications - innovation funded are often isolated rather than the full innovation ecosystem. Integration of single, pilot technologies into the broader systems for innovation is necessary.

MIE3
There are many challenges: 1. Definition of innovation and how to assess the degree of innovation, coming up with criteria to fund innovation; 2. Finding the innovation, as many local actors might not know what they are doing is innovative, or can articulate their solution to meet the innovation criteria; 3. A balance between local-led and national-owned processes. [redacted] has experienced both of these models (GEF SGP and AFCIA); AFCIA is a truly locally led process, very well received by the CSO/NGO and local actor community, but not so well received by the national government. I think AF could support the locally led process further, creating a protection buffer for local actors to access innovation funding. With the learning from the first phase of AFCIA, we hope to work together with other AEs/IEs to better refine the definition of innovation and articulate what are some good practices to evaluate innovation.

Q7: What are some promising opportunities to fund innovation for adaptation? Are there concrete examples where this has been done in practice? (They do not have to be from your organization's portfolio).

MIE1
A) Supporting the private sector, especially MSMEs in developing countries, as developers and providers of adaptation innovations, leads to the creation of new and climate resilient business models and job creation. B. Ongoing interventions mostly focus on identifying and enhancing supply of adaptation innovations. This approach is important in strengthening innovative capacities of countries, and in creating a pipeline of innovations for investment. In parallel to

creating a solid and steady supply of innovations, principles of locally-led adaptation can be strengthened through a demand driven approach – ie. identifying the demand for innovation with a potential customer upfront. For example, climate risk assessments within a value chain can be conducted with key stakeholders within the value chain to determine the needs for innovative solutions, based on which stakeholders can confirm commitment to adopt identified solutions. Such a demand-driven approach would increase ownership and market creation for innovations, and also ensure that the process fully engages communities and beneficiaries.

MIE1

Promising opportunities for early-stage support of adaptation innovation include: Incubators and Accelerators: The Climate Innovation Centre Kenya (CIC), which supports startups through funding, mentorship, and networking opportunities to develop and scale climate adaptation solutions. The Global Cleantech Innovation Programme (GCIP) also plays a significant role in early-stage support through competitive acceleration programs for startups. Seed Funding and Grants: The Adaptation Fund's Innovation Grants provide initial funding to develop and test innovative adaptation business and project models, financial instruments (results-based payments, reimbursable grants, etc.) and technologies. Additionally, the Global Environment Facility's (GEF) Small Grants Programme (SGP) offers seed funding to local communities and NGOs to implement innovative environmental projects. Crowdfunding Platforms: Platforms like Kickstarter and Indiegogo allow innovators to raise initial funds from a broad audience, providing the capital needed to develop early-stage adaptation technologies. The Water Project, for instance, has used crowdfunding to finance small-scale water projects in Africa. Competitions and Prizes: The XPRIZE Foundation runs competitions that incentivize the development of breakthrough solutions to global challenges, including climate adaptation. The MIT Climate CoLab also hosts contests for innovative adaptation ideas, offering funding and support to winners. Public-Private Partnerships: The Rockefeller Foundation and the US Agency for International Development (USAID) launched the Global Resilience Partnership, which provides funding and resources to early-stage projects that build resilience in vulnerable communities. University and Research Institution Programs: Programs such as the Resilience and Adaptation Program at the University of Alaska Fairbanks provide research funding and support to students and researchers working on innovative adaptation projects. Innovation Labs: The UNDP Accelerator Labs support the testing and scaling of innovative solutions to address complex development challenges, including climate adaptation. They collaborate with local innovators to prototype and scale successful solutions. Impact Investment Funds: DBL Partners: Invests in early-stage companies that aim to deliver both financial returns and social/environmental benefits, including climate resilience. Acumen: Provides patient capital to early-stage social enterprises addressing poverty and climate challenges, such as agricultural startups enhancing resilience to climate change. Corporate Venture Capital: Engie New Ventures: Invests in startups developing innovative energy solutions, including those that enhance climate resilience. Schneider Electric Ventures: Funds early-stage companies focused on sustainability and energy management, promoting technologies that improve resilience to climate impacts. Innovation Challenges and Hackathons: Techstars Sustainability Accelerator: In partnership with The Nature Conservancy, this accelerator supports startups addressing environmental challenges, including climate adaptation. Climathon: A global hackathon organized by EIT Climate-KIC that brings together innovators to develop solutions for local climate challenges, often resulting in early-stage support for viable projects. Corporate Incubators and Accelerators: Unilever Foundry: Supports startups working on sustainable and resilient solutions, providing funding, mentorship, and market access. Microsoft AI for Earth: Offers grants and support to early-stage projects using AI to solve environmental challenges, including climate adaptation. Blended Finance Initiatives: Blended Finance Taskforce: Mobilizes private sector investment for sustainable development projects, including climate adaptation, by combining public and private funds. Convergence: Facilitates blended finance transactions that leverage private investment for early-stage climate resilience projects. Corporate Social Responsibility (CSR) Initiatives:

Coca-Cola Foundation: Funds community projects that improve water security and climate resilience, often supporting early-stage initiatives. Patagonia Action Works: Provides grants and support to grassroots organizations working on environmental issues, including climate adaptation. Insurance and Risk Management Innovations: Climate Risk Insurance: Companies like Munich Re and Swiss Re offer innovative insurance products that help vulnerable communities manage climate risks. The Nature Conservancy's Reef Insurance: Provides funding for coral reef restoration after storm damage, enhancing coastal resilience. Concrete examples of early-stage adaptation innovation support include: The Adaptation Fund's Climate Innovation Accelerator (AFCIA): A program that provides small grants to developing countries to pilot innovative adaptation technologies and practices. The Climate Investment Platform (CIP): Initiated by the International Renewable Energy Agency (IRENA), SEforALL, and UNDP, CIP helps countries attract and structure private sector investments in clean energy and climate resilience projects at early stages. The Global Innovation Lab for Climate Finance: Identifies, develops, and launches innovative finance instruments that can drive private investment in climate adaptation and resilience projects.

MIE2
Seed funding and financing mechanism of: > UN Agencies e.g. IFAD or Bridge Fund of UNCDF/WFP > Development banks e.g. ADB, AfDB, World Bank.

MIE3
An approach that is working well is to enable integrated system of support that entails origination, screening, technical assistance, financing, and networking. Adaptation Innovation marketplace ofUNDP has been showing promising results that could be replicated and scaled. Another approach is to support MSME development under projects alongside blended finance to transition to market solutions for innovations within regular AF projects.

RIE1
- reducing social and economical vulnerabilities - climate warning information.

MIE4
For agricultural adaptation in Yemen and Iraq, i believe regenerative agriculture, agro-ecology, watershed management and modern/advanced technologies are most promising.

NIE1
Chile has significant expertise in renewable energies, particularly in solar, wind, and geothermal power. This expertise presents promising opportunities to fund innovation for climate adaptation. For instance, investing in renewable energy projects that incorporate innovative technologies for energy storage and grid management can enhance climate resilience by ensuring a reliable and sustainable energy supply. Additionally, supporting the development of decentralized renewable energy systems in remote and vulnerable communities can improve energy access and reduce the impact of climate-related disruptions. A concrete example of successful innovation funding for adaptation in Chile is the Cerro Pabellón geothermal power plant. As the first geothermal plant in South America, it utilizes advanced technology to harness geothermal energy efficiently. This project not only provides a stable and renewable energy source but also showcases the potential for geothermal energy in reducing greenhouse gas emissions and enhancing energy security. Such initiatives demonstrate how targeted funding for innovative renewable energy solutions can drive climate adaptation and improve sustainability outcomes.

NIE2
A promising example is the GSMA Innovation Fund for Climate Resilience and Adaptation which is designed to help accelerate not only the adoption and scalability of digital innovations that

enable the world's most vulnerable populations to adapt, anticipate and absorb the negative impacts of climate change, or strengthen biodiversity, but also to test the innovative ideas and their potential despite the possibility of failure, which is a trigger for the majority of funding sources.

NIE3
Explore use of Sargassum for animal feed; fertilizers; fuel; - Use solar technology to pump water upland for irrigation to reduce cost while improving yield -Develop tourism/livelihoods -Rain water harvesting -school garden- school attendance child nutrition-food security nexus -Soil conservation/slope stabilization through use of live barriers, ballasted waterways, check-dams - Climate change incubators -Coral gardening.

NIE4
There are many opportunities to finance innovation for adaptation in: - Research and popularization of resilient seeds; - Artificial insemination ; - Greenhouse crops for more yield; - Mechanization with new intelligent machines; - Renewable energy ; - The development of innovative financial products; - Conservation of agricultural products with remote sensing; - Online marketing.

MIE5
To advance the operational use of innovative technologies by National Hydrological and Meteorological Services (NMHSs) in the world, the [redacted] HydroHub created Innovation Calls to invite businesses to submit new sustainable solutions that can be upscaled around the world. Five innovation projects have been selected and funded between 2018 and 2023 in the framework of [redacted] HydroHub Innovation Calls. During the projects, an initial proof of concept period was performed, during which the technology was deployed in pilot countries. However, one aspect that requires utmost attention and improvements is the long-term viability and operationalization potential of the projects after this initial proof of concept period, to ensure that these solutions can be upscaled. This effort requires dedicated funding.

MIE6
Good examples have been coming out of the AFCIA [redacted] portfolio: Water management – SLAMDAM (flood mitigation barrier) in Burundi Agriculture: SPIS in Liberia Early Warning Systems (EWS) – Agri-meteorology system in Nepal.

MIE3
One opportunity (that [redacted] is exploring) is to better connect with the academic sector. Many innovations are fo,stered by universities. How to better link local solutions with proper research and guidance from the academic world has been a key focus of [redacted] AFCIA window. This was not in the original project design, but has shown tremendous potential. Currently, we are working with six top universities' environmental science department and MBA schools. Yearly, we are connecting MBA and Master students directly with local NGOs/CSOs that are working on innovative adaptation solutions to provide these local actors access to new information, capacity building and research guidance. We hope to work with AF to scale up this opportunity, especially for global south universities as they are often facing constrains of funding to collaborate on development issues like this one.

Q8: If there such concrete examples from your organization’s project portfolio, what were the outcomes and impacts?

MIE1

The demand-driven innovation approach is novel to the adaptation landscape in developing countries. [redacted] climate mitigation portfolio has a few examples of demand-driven innovation, including the Facility for Low Carbon Technology Deployment https://www.low-carbon-innovation.org/about-innovation-challenge.html. The expected outcomes and impacts of the demand driven approach are: - Locally led identification of adaptation needs - Early commitment by the “customer” (community or value chain actors) to investment in and adopt the identified needs - Full localization of the adaptation innovation to each context, as the demand is analysed at the onset.

MIE1
By 2030, the estimated impact of the Global Cleantech Innovation Program (GCIP) includes supporting over 2100 SMEs in cycle 2, with 40% of these being women-led enterprises. The program aims to achieve direct and indirect emission savings amounting to 11 million metric tons of CO2e. Additionally, GCIP is projected to benefit more than 12,000 individuals involved in cleantech and related sectors. With a total budget exceeding $30 million, the program is positioned to make a significant contribution to climate adaptation and resilience through innovation and entrepreneurship. Launched in 2013, the Switch-Med initiative aims to accelerate the adoption of sustainable consumption and production patterns in the Southern Mediterranean through circular economy approaches. In phase-1 (2013-2018), the project engaged 8 Southern Mediterranean countries and developing 8 National Action Plans for sustainable production and consumption. The initiative implemented 20 policy pilots and identified 1,830 Resource Efficient and Cleaner Production measures across 125 industries, resulting in the avoidance of 197,525 tonnes of CO_2 emissions and €41.7 million in annual production cost savings. Moreover, the project incubated 48 green entrepreneurs, facilitated the creation of over 200 green companies, and generated more than 1,000 green jobs. It also supported the establishment of 14 civil society initiatives and channeled €106,000 through the SwitchersFund to green entrepreneurs.

MIE2
Bridge Fund of UNCDF & [redacted] which is a loan/guarantee model. Financial sustainability has to be proven but interest rates are below market prices.

MIE3
For example, AIM has reached over 22 grantees supporting innovations across resilient housing, EbA and products, aquaponics etc. and the ecosystem of support has helped many innovations make their way into capital infusion.

RIE1
More adaptation and cross cutting adaptation - mitigation projects.

NIE1
The Cerro Pabellón geothermal power plant is a project led by Enel Green Power, in collaboration with Chile's national oil company, ENAP. This project, located in the Atacama Desert, stands as the first geothermal plant in South America, leveraging the region's rich geothermal resources. Enel Green Power's innovative approach involves using advanced technology to harness geothermal energy efficiently, demonstrating the feasibility and benefits of geothermal power in the region. The outcomes and impacts of the Cerro Pabellón project have been significant. The plant provides a stable and renewable energy source, contributing to Chile's energy security and reducing greenhouse gas emissions. By showcasing the potential of geothermal energy, this project has paved the way for further investments in renewable energy technologies in Chile. Additionally, the success of Cerro Pabellón has spurred local economic

development and job creation, highlighting the broader socio-economic benefits of investing in innovative renewable energy projects.

NIE2
In our organization's portfolio there is one Small Innovation Grant Project aimed at fostering digital environmental education for the young generation of potential future key actors in the context of combating climate change negative impacts. As you know, the project impacted a large number of schoolchildren in the whole territory of Armenia building their knowledge on climate change itself and the adaptation measure that can be implemented. One of the key deliverables that proves the success of the innovative solution of educating the younger generation with a gamified module (further developed into a mobile application) was a competition of climate adaptation ideas held among the schoolchildren, which showed the increased motivation to be a proactive figure in climate context. Moreover, the mentored sessions on improvement of proposed ideas helped the pupils to build on their project ideation capacities.

NIE3
1)Rain water harvesting -school garden- school attendance child nutrition-food security nexus: Increased yields from the school gardens; improved attendance, increased interest in environmental and agricultural clubs and groups; improved nutritional offering from school canteens and reduced food input bills for the schools. 2. Soil conservation/slope stabilization through use of live barriers, ballasted waterways, check-dams: Reduced incidence of landslides and slippages, crop losses/livelihood diminution; nature-based-low tech-scalable solution.

NIE4
Our bank [redacted] already has in its portfolio these types of projects financed in particular in: - Solar energy with own funds and 500,000,000 FCFA from NESAP (Electrification Project), - Greenhouse crops with own funds , 200,000,000 of LUXDEV and 3,000,000,000 FCFA from BIDC/ECOWAS, - The conservation of agricultural products with own funds and with subsidies from partners and - Online marketing using own funds and PIMELAN's 100,000,000.

MIE5
The outcomes of the five innovation calls implemented in the framework of the [redacted] HydroHub are outlined below: First [redacted] HydroHub Innovation Call - implemented in Bhutan by Northern Widget LLC - Designed and operationalized a set of low-cost and open-source hydrological monitoring equipment; - Helped to mitigate human safety concerns for deployments in hard-to-reach remote locations. Second [redacted] HydroHub Innovation Call Implemented in the Himalayan Region by the Indian Institute of Technology Roorkee: - Operationalized innovative lidar-based sensors for near-real-time water level measurements; - Increased monitoring capacity of the Central Water Commission (CWC) of India. Implemented in Belize by Elligence Solucoes em Tecnologia - Developed a new module of CDMS "Surface" for performing automatic QC based on AI; - Improved the reliability of measurements of hydrometeorological data of Belize's NMS. Implemented in Tanzania by TAHMO - Developed low-cost and open-source hardware and web-software stack with API to establish and maintain river rating curves; - Implemented through co-design with users in Tanzania and The Netherlands. Third [redacted] HydroHub Innovation Call - implemented in Fiji by NIWA - Developed novel stage triggered stereoscopic camera stations for capturing flash floods. - Deployed camera stations in Fiji with FMS and SPC to test their efficacy for Pacific rivers. All five projects require dedicated funding to be scaled up. The Lidar project (IIT Roorkey) was scaled up in Peru and would require further funding to expand to other countries and regions.

MIE6

Specific [redacted]CTCN AFCIA successes include the following countries for which stories have been published over the last year: Burundi https://www.unep.org/news-and-stories/story/can-portable-dam-help-africa-counter-rising-waters Liberia https://www.ctc-n.org/news/solar-farm-table-liberia-improved-solar-powered-irrigation-practices-are-securing-lowland-rice and Saint Kitts https://www.ctc-n.org/news/drought-risk-modelling-strengthening-st-kitts-and-nevis-water-supply-resilience

MIE3
We are connecting MBA and Master students directly with local NGOs/CSOs that are working on innovative adaptation solutions, to provide these local actors access to new information, capacity building and research guidance. MBA students' focus is on sustainability and business models to improve the continuity of the local actors and support them in scaling and expanding their innovative solutions. Master of science students is tasked to focus on impact research and research on adaptation linkage to other SDGs, including ground trying some of the solutions (scientifically examining whether the solution is truly beneficial to build resilience; it is not an easy thing to do). From all the TA UNDP has provided to the local actors, this engagement with academics is by far the most well-received activity.

Q9: What could the AF do better to help to connect AF-funded projects and programs to those opportunities?

MIE1
Success of the demand-driven innovation approach rests on the partnership with the “customer” - from conducting risk and vulnerability assessments, designing the call and terms of reference for the innovation in demand, preparing the terms of piloting/deployment of the solution, as well as its sustainability and exit planning. Also it is important to engage the customer when working with the selected innovation to further refine and validate the technology/solution, and verify its climate rationale and adaptation impact. In many cases the customer of adaptation innovations will be communities and groups of stakeholders within a value chain. Therefore, the consultation and engagement with the customers are expected to be a lengthy process, also requiring support at local government levels and collaboration with municipalities. AF’s support in creating higher funding windows with a longer project timeline would be very beneficial.

MIE1
The Adaptation Fund (AF) could enhance its support in several ways to better connect AF-funded projects and programs to opportunities: Networking Platforms: Establish dedicated online platforms or forums where project implementers, private investors, international organizations, and other stakeholders can connect, share knowledge, and explore collaboration opportunities. Matchmaking Events: Organize periodic matchmaking events or conferences that bring together AF-funded projects and potential investors or partners. These events could facilitate networking, partnership building, and the exchange of innovative ideas. Capacity Building: Offer capacity-building workshops or training sessions for project implementers on pitching to investors, project financing models, and navigating the financial landscape for climate adaptation projects.

MIE2
- Systematic connection of ventures with financial partners - Public visibility (virtual and in person) - Smooth transition between different AF programs e.g. Small & Large Scale Programmes.

MIE3

Bridging entrepreneurs to capital, research to application, and helping create a system of technical assistance can support advance innovation.

RIE3
private sector involving - lack of capacity building on innovation funding mechanism.

NIE1
The Adaptation Fund (AF) could enhance its impact by establishing stronger connections between AF-funded projects and opportunities in renewable energy innovation, like those demonstrated by the Cerro Pabellón project. One approach could be to create dedicated platforms for knowledge exchange and collaboration, bringing together project implementers, experts in renewable energy, and other stakeholders. These platforms could facilitate the sharing of best practices, lessons learned, and technological advancements, thereby fostering a more cohesive and informed community working towards climate resilience. Additionally, the AF could develop targeted funding mechanisms that specifically support the integration of renewable energy innovations into adaptation projects. By offering grants for projects that incorporate cutting-edge renewable technologies, the AF can incentivize the adoption of sustainable energy solutions. Strengthening partnerships with organizations experienced in renewable energy, such as ENAP, can also provide valuable technical assistance and mentorship to project implementers. These strategies would help maximize the effectiveness of AF-funded projects, driving broader adoption of renewable energy solutions and enhancing overall climate resilience.

NIE2
Our position is that the willingness to help better should not be limited only to the efforts to connect only AF-funded projects/programs to the existing opportunities. We think that it could be helpful to have designated innovation team members who could permanently observe the existing climate adaptation innovation funding opportunities and for example advise even on the possibilities of funding of the submitted ideas that do not match with the funding requirements of AF.

NIE3
1.Assist in funding climate change incubators/local adaptation funds for NGOs and CBOs 2. Pair projects with previous or current initiatives through horizontal cooperation.

NIE4
To connect projects and programs financed by the AF to these opportunities, the AF will be able to support financial institutions with accessible and long-term financial resources in order to meet the needs of agribusiness.

MIE5
Outreach should be broader and establish new platforms to spread the word.

MIE6
could support in organizing pitching event to new investors especially private sector.

MIE3
We hope to work with AF together to raise funding for this type of engagement. [redacted] was grateful that this part of the activities is supported by the co-finance of the EU; it was not in the original project design, and we are not sure if these types of activities can be funded by AF. We hope for AFCIA phase two, to reach out to donors/philanthropy organizations to co-finance AF funding (which largely are used as grants to the local actors).

Q10: Based on your experience, have you identified a need for external financial sources to enhance the impact or scale of your projects? If so, please specify what types of financial sources or external partners you believe would be beneficial to engage with? Please list them.

MIE1

[redacted] is keen to explore synergies and complementarities with the three main climate finance mechanisms, namely the Adaptation Fund, the Green Climate Fund and the Global Environment Facility. Support in coordinating and aligning the project development and approval cycles among the three entities would be crucial for increased impact and scale-up of the projects.

MIE1

Key types of financial sources and partners that have proven beneficial include: Impact Investment Funds: Engaging with impact investors like Mercy Corps Ventures and Acumen, which specialize in providing patient capital to early-stage enterprises addressing climate challenges specifically in developing countries. Corporate Partnerships: Collaborating with corporations like Engie New Ventures, Prudential, Schneider Electric Ventures that invest in innovative energy and sustainability solutions tailored to climate adaptation needs in developing regions. Development Finance Institutions (DFIs): Partnering with DFIs such as the International Finance Corporation (IFC), Asian Development Bank (ADB), African Development Bank (AfDB), World Bank (WB), Inter-American Development Bank, European Investment Bank (EIB) to access loans, guarantees, and risk mitigation instruments designed for climate adaptation and resilience projects in emerging economies. Philanthropic Foundations: Seeking support from foundations such as the Rockefeller Foundation, Packhard foundation, Ford Foundation, Patagonia Action Works,etc which fund initiatives aimed at promoting environmental resilience and climate adaptation strategies specifically in developing countries. Crowdfunding Platforms: Utilizing platforms like Kickstarter or Indiegogo to raise initial funds from a broad audience interested in supporting early-stage climate adaptation innovations in less developed regions, thereby mobilizing public support for impactful initiatives.

MIE2

We will try to introduce promising ventures to a portfolio of financial partners: - Development banks e.g. ADB, AfDB, IFAD - Bridge Fund of UNCDF & [redacted] - Selected venture capitalists focused on social impact startups - Public donors e.g. USAID, GIZ.

MIE3

yes, often while there is initial need for public/common good financing, projects (and beneficiaries) do become more credit worthy and assets and capacities supported can form the basis from crowding in additional financing. Using AF financing as de-risking capital can help attract external public (for instance municipal finance) and private capital.

NIE1

Based on our experience, there is indeed a significant need for external financial sources to enhance the impact and scale of our projects. While internal funding provides a strong foundation, external financial sources can offer the additional capital necessary for scaling innovative solutions and reaching a broader audience. Engaging with multilateral development banks, such as the World Bank and the Inter-American Development Bank, can provide substantial funding and technical support. These institutions have extensive experience in large-scale project financing and can bring valuable expertise and resources to our initiatives.

NIE2
For scaling up the impact of the only innovation project in our portfolio we try to engage partners from the local innovation ecosystem, thus it will be hard to advise on this topic.

NIE3
Yes, grant funding.

NIE4
Yes, we have identified internal and external funding sources to finance these innovations. The most suitable partners are the AF, NESAP, BIDC, ANSI and financial institutions working in development.

MIE5
The [redacted] HydroHub is specifically focusing on increasing the sustainability and impact of its Innovation Calls. A Concept Note on Scaling up Innovation Calls is under development and will be shared with private sector/Innovation Funds that are interested in the scaling up of innovation. The AF would also be a target funding source.

MIE6
What would be beneficial would be to move from grant to private sector finance in order to ensure long term sustainability but this would imply strengthening the enabling environment and attracting private sector investment in a sector that is not usually attractive due to the nature of the innovation that often targets the most vulnerable groups in a high risk context and imply low returns and high risks.

MIE3
Given the local actors that were supported by [redacted] AFCIA, we have reached out to philanthropy organizations, impact funds (with high impact), and other public funders to support the scale-up of the AFCIA grantees. So far, the AFCIA grantees have been very successful at raising grant-based finance after their AFCIA experience. There is a few grantees that are now at the stage of looking at $200,000-$500,000 debt finance (at a reasonable rate, preferably local currency), which is an extremely challenging area of finance. [redacted] has been in discussion with UNCDF, on opportunities to support these grantees.

Q11: Based on your experience, have you identified a need for setting up ways to generate revenue post-project, in order to ensure the sustainability of the project outcomes? Can you identify potential schemes and sources to generate such revenue?

MIE1
One option under consideration to enhance the sustainability of supported innovations is to work with beneficiary communities to create other business models with the deployed adaptation solution, which can lead to further climate resilience. For example, a cold-storage solution from a MSME deployed in a cocoa value chain to reduce post-harvest losses can also be used to create another business model within the beneficiary community – such as cold-storage for street food vendors that will not only reduce food waste, but also maintain freshness preventing food poisoning and pathogens leading to climate resilience of the community.

MIE1
In the context of adaptation and resilience building solutions' technology emergence, development, and deployment in developing countries, post-project revenue generation strategies can include technology transfer and licensing of developed solutions to local and

international partners, fee-for-service models for ongoing use and maintenance of adaptation and resilience building technologies, and public-private partnerships (PPPs) for joint deployment and revenue-sharing arrangements. Additional avenues include monetizing project outcomes by accessing climate finance mechanisms, offering training and capacity-building services on adaptation technologies, developing resilience tourism initiatives, providing value-added services like consultancy and impact assessments, partnering with local financial institutions as well as DFIs for financial support, exploring ecosystem services payments, and seeking philanthropic and corporate sponsorship. These approaches aim to ensure sustainability, scalability, and local economic benefits while addressing climate challenges effectively.

MIE2
A solid financial business model is a key prerequisite to get long term funding or financing. Solid revenue streams and cash flows from a B2B, B2C or B2G model are critical to cover the costs.

MIE3
Yes, based on the sector, using the AF financing to create assets, productivity, livelihoods, and jobs paves the way for value-chain and market development. These pathways can entail inclusion of stakeholders (market actors, FIs, govt agencies) that can help sustain interventions and revenue generation post project.

NIE1
Based on our experience, ensuring the sustainability of project outcomes often requires setting up mechanisms to generate revenue post-project. This approach helps maintain project benefits and activities beyond initial funding periods. One effective scheme involves establishing fee-for-service models or user fees for ongoing project services. For instance, projects focused on renewable energy could sell excess power generated to local utilities or communities, thereby generating revenue to sustain operations and expand impact. Another approach is leveraging project assets, such as infrastructure or intellectual property, to create income streams through licensing agreements or partnerships with private sector entities. Additionally, integrating project outcomes into local economies can foster sustainability. This includes supporting local entrepreneurship and creating job opportunities through skills development programs initiated during project implementation. Furthermore, establishing community-based enterprises that capitalize on project-related knowledge or resources can provide ongoing revenue sources while empowering local communities. By strategically planning for revenue generation post-project, organizations can enhance the long-term viability and scalability of their initiatives, ensuring sustained benefits for communities and stakeholders involved.

NIE2
In the specific case of our project indeed there is an identified need to secure post-project revenue to ensure the sustainability of the project results. We believe this is the case for the majority of innovative ideas. We have identified a need to invest in maintaining the level of pupil's interest in the game by enabling new levels/worlds in the game, in maintaining the game itself (future server costs, etc.). We think in the direction of the monetization of the game, the idea currently undergoes a round of careful discussions.

NIE3
1.Formally organize and register groups (WUGs) as legal entities - Friendly Societies and Cooperatives- 2. One water project was able to consistently generate revenue from surplus supplies to alleviate water shortage in neighboring communities. Other examples included increased revenue from increased yields arising from technical assistance, training and inputs provided under the projects.

NIE4
Obviously like the sources of financing, the financing resources for the sustainability of these projects are twins to the latter. In most of our funding partnerships, we always provide resources for the monitoring and sustainability of the funded projects.

MIE5
The [redacted] HydroHub Think Tank is developing a sustainability plan for Innovation Calls that includes aspects such as creating revenue streams for NMHSs in view of sustaining the use of innovative technologies.

MIE6
This is one of the main challenges. Those can be linked to value chain support and avoiding loss due to climate change impacts such as crops in terms of drought or floods but they are often difficult to quantify and remain quite marginal.

MIE3
Yes, one key element of the [redacted] AFCIA is financial sustainability. For AFCIA cohort one grantees (22 in total), 2-3 have achieved financial sustainability independently. Around 7-10 have proven they can continue to work and operate with grants and are getting much better at security public funding. We will share a catalogue with AF, highlighting all the grantees, and financial sustainability (and revenue potential) is a section of the catalogue.

Q12: Based on your experience, have you identified a need to ensure that the beneficiaries of the project specifically can have access to additional sources of finances directly, post-project? Can you identify which sources of finance would be needed?

MIE1
The projected volume of adaptation financing needed by developing countries cannot be met without private sector financing. In the case of [redacted] projects promoting adaptation innovation, this is done through enhancing the investment readiness of the innovations as a de-risking measure for private financing, so that ultimately these innovations can enter the market and continue as businesses on a commercial basis.

MIE2
Ensuring post-project financial access for beneficiaries is crucial for sustaining impacts. Beneficiaries often require ongoing financial support to scale and maintain adaptation technologies and businesses. Sources of finance include microfinance and SME loans tailored to their needs, impact investment funds like Acumen and Mercy Corps Ventures focusing on climate adaptation challenges, and accessing climate funds such as the Green Climate Fund (GCF). Grants from philanthropic foundations and development agencies also support ongoing innovation. Revenue generation through service provision, ecosystem services payments, and corporate CSR initiatives further sustains projects. Community-based financing mechanisms like revolving funds empower local communities to invest in adaptation measures independently. These diverse financial sources enable continued resilience-building and economic empowerment long after project completion.

MIE2
As we have experienced that financing mechanism are not available to many beneficiaries, particularly women, [redacted] is piloting and testing a micro loan model for beneficiaries to cover the costs of setting up or investing into businesses.

MIE3
As part of an exit strategy for a project, it is critical to connect the beneficiaries and the results to value-chains, markets, FIs and other PS actors such as insurance to ensure there is continued access to finance post-project. Government budgetary support should also be seen as an important source that helps continue investments into climate-adaptive interventions.

NIE1
In our experience, ensuring that project beneficiaries have continued access to additional sources of finance post-project is crucial for sustaining project impacts. However, it's important to note that this aspect is not within [redacted] competencies. Facilitating access to microfinance, small business loans, and community savings groups can empower beneficiaries to scale project activities and diversify livelihoods. Partnerships with local financial institutions can expand access to formal financial services, developing tailored products that meet the needs of rural and marginalized communities. Exploring grant opportunities from philanthropic organizations and development agencies can also provide non-repayable funds for community-led initiatives and capacity-building, enhancing long-term resilience and sustainability of project outcomes. By fostering direct access to diversified financial sources, we aim to empower beneficiaries and strengthen local economies beyond the initial project phases.

NIE2
For our project this was not the case, however, for sure this is a good idea for innovative solutions overall, since they often are very similar to startups and need to be given a thought regarding the post-project development scenarios.

NIE3
Yes resources are needed for technical assistance and related inputs on a more ongoing basis. This is necessary as there is a need to change culture and practices to foster sustainability of adaptation initiatives. Responsible agencies therefore need dedicated funding to give this assistance.

NIE4
In accordance with the prerogatives of [redacted], we work for the autonomy of our customers. At the end of the projects, [redacted]always manages to continue its relationships and meet the needs of the promoters.

MIE5
This is the challenge that is encountered i.e. at the end of the projects, the NMHSs who are the beneficiaries of the projects do not have the financial resources to sustain the use of the innovative technologies in the operations.

MIE6
Yes in all small grant projects additional sources of funding will be required to take the innovation or technology forward and ensure its wide dissemination / adoption in the country and beyond. This remains a main challenge as adaptation is still highly dependent on grant support which by definition is limited both in amount and time. the need is to switch toward attracting more private sector investments but this will mean finding ways to generate revenues and returns and limiting risks as well as working on the wider enabling environment (also called national systems of innovation) to provide the right incentives. Looking at public private partnership could also be a good way forward. To date successful examples and good practices of such schemes remain to rare for adaptation.

MIE3

As mentioned above, all [redacted] AFCIA grantees are NGOs/CSOs. 2-3 has fully realised its potential and is setting up the for-profit arm of its NGO to ensure sustainability due to its innovative solutions. These organizations require low-rate debt finance, one is accessing carbon credit. Others will continue to work with grant-based public finance and crowdfunding, which AFCIA experience and TA from UNDP have significantly strengthened their capacity and experience operating in this space.

Annex III: List of organizations that the innovation team has on-going dialogues with.

- Afrilabs,
- Climate-KIC,
- Earth-shot Prize,
- Enterprise Neurosystem,
- Global Green Growth Institute (GGGI),
- GSMA Climate Tech,
- International Trade Center (ITC),
- Uplink (World Economic Forum),
- World Intellectual Property Organization (WIPO)
- VITO (G-STIC) - Vision on technology for a better world