Enabling Least Developed Country Universities to Contribute to and Support National Adaptation Action

Full findings from an ARA Co-Creation Space

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Contents

Introduction and setting the scene

Problem statement

Universities in Least Developed Countries (LDCs) play a critical role in advancing knowledge and providing solutions to the complex challenges facing these underresearched and underrepresented countries. One of the most pressing challenges facing LDCs is the impacts of climate change, which can exacerbate poverty and inequities and undermine sustainable development. To effectively address this, LDCs need an integrated, action-oriented climate change adaptation research and engagement programme that aligns with and contributes to government efforts to advance the Sustainable Development Goals (SDGs) and build resilience to the impacts of climate change.

Through working together, universities, government agencies, civil society and other stakeholders can design action-oriented research that brings community voices to the fore, fills knowledge gaps, and provides locally generated evidence for policy making and practice. Such evidence could support resilient and equitable adaptation to climate change, including in the areas of disaster risk reduction, sustainable land use, natural resource management and governance.

Background to this concept

The conceptualisation of this piece of work began with the Least Developed Countries Universities Consortium on Climate Change (LUCCC) and the United Nations Development Programme (UNDP).

LUCCC is a South-South, long-term, capacity-building platform comprising 10 founding member universities. Under this network of universities, faculty members and students share experiences and knowledge on climate change to build capacity through education, training, research and communication. The LUCCC is a member of the Adaptation Research Alliance (ARA). The LUCCC is working with various donors and multi-lateral partners to undertake research on knowledge generation in relation to the formulation and implementation of National Adaption Plans (NAPs) and Nationally Determined Contributions (NDCs), with a focus on the knowledge of the most vulnerable.

With funding from the Green Climate Fund Readiness window, UNDP is currently providing support to 35 countries, including 13 LDCs, to strengthen capacity to formulate and implement NAPs. Aligned with this work, in 2020-21, UNDP implemented the Climate Promise, the world's largest package of support to enhance and update NDCs, working with 120 countries. UNDP is currently developing and beginning implementation of the second phase of the Climate Promise, which will support countries on NDC implementation. Currently, this support is being provided to 50 countries globally, with additional countries likely to join the CP2 in the near future.

With its unparalleled global reach, UNDP is exploring the possibility to work with LUCCC to enhance knowledge generation and use it to inform the NAP formulation and implementation process. This enhanced knowledge could be in any area of relevance to the NAP process, including incorporating risk and vulnerability information, local and indigenous knowledge, and/or knowledge that can improve gender and social inclusion outcomes (for example, enhancing the resilience of women or other potentially marginalised and vulnerable groups). The initiative will also serve to strengthen the research capacity and impact of universities and academics in LDCs, who will take the lead in researching risk, vulnerability and the amplification of local knowledge to inform the NAP process. In addition, institutionalising long-term knowledge management through either government or university systems will ensure better integration and use beyond project funding cycles.

The Alliance has brought together LUCCC and UNDP to co-develop this concept through an ARA co-creation space. This process will ensure that the concept is further developed with ARA members expertise and knowledge, building on the collective learning of all members.

The ARA co-creation space

The ARA is co-creating a new action-oriented research programme that puts LDC Universities in the driving seat to support their country's adaptation priorities. Interfer is a social enterprise that is facilitating this ARA co-creation process.

The purpose of this co-creation space is to co-develop a new adaptation research programme, embedded within an LDC's broader knowledge system, that will provide both the enabling environment and build capacity to support national adaptation efforts. This programme will facilitate the preparation, use and enhancement of national scientific and technical capacities in LDCs and embed these going forward into national adaptation actions, processes, and development plans across scales. By taking a whole-of-society approach, the programme will ensure that the voices of the vulnerable are included and that locally-led and community-based adaptation approaches can be integrated into national systems and at scale.

Framing the co-creation space

The way adaptation knowledge in LDCs is generated and used is problematic in many ways. These issues strongly informed the way we framed the co-creation space. Issues include a lack of locally-led research, or what is being termed localised research (for example in Fitzpatrick et al., 2023)[1] and the continued dominance

1 Fitzpatrick, M., I. Cordua, T. Atim, A. Kattakuzhy, and K. Conciatori. (2023). '"Co-investigators but with different power": Local voices on the localization of humanitarian research'. Feinstein International Center, Friedman School of Nutrition Science and Policy at Tufts University and Network for Empowered Aid Response. Boston, MA.

of Global North researchers in climate change research (Gewin, 2023)[2], which is, in turn, a function of the lack of direct funding for climate change research in LDCs. Foreign researchers generally come into a country for short periods of time and do little to build local capacity, establish ongoing partnerships with communities or participate in government policy and decision-making processes. They are also often less equipped than local researchers in terms of understanding the local context and culture. In addition, the science-policy-practice gap continues to persist in LDCs (Nishikawa et al., 2022). Evidence-based policy and decision-making are not widely practised, and there are considerable hurdles or barriers that both 1) prevent the type of research that can best inform policy and practice; and 2) block opportunities to bridge the science-policy-practice divide and take new knowledge up into the policy and action arena.

Given these issues within the current adaptation research **knowledge system** and the need to shift it to better enable locally-driven research and to support the inclusion of research findings in policy and practice, we found the framework outlined by Fazey et al (2020)[3] helpful throughout the co-creation process. In particular, the concept of a knowledge system and what is needed to shift it helped to guide our thinking, and the paper provided a useful entry point for engaging with various actors. The framework was useful to capture and convey what the existing issues are, what the new programme seeks to achieve and what is needed to get there (Figure 1). Exploring ways to shift or transform the knowledge system helped to guide us in developing the various options we put forward for a new action-orientated research programme in LDCs. Throughout the co-creation process, we recognised that multiple, interlinked solutions that cut across the ecosystem of actors (such as universities or governments) and that operate at different scales, are needed if local research is going to be able to inform policy and practice and ultimately support vulnerable peoples' adaptation to climate change in LDCs.

Knowledge systems

Knowledge systems include the practices, routines, structures, mindsets, values and cultures affecting what and how knowledge is produced and used and by whom.
(Fazey et al., 2020)

Drawing of the ideal knowledge system at post-CBA17 workshop

2 Gewin, C. (2023). 'Pack up the parachute: why global north-south collaborations need to change'. Nature, 619, pp. 885-887. doi: https://doi.org/10.1038/d41586-023-02313-1

3 Fazey, I., Schapke, N., Caniglia, G., Hodgson, A., Kendrick, I., Lyon, C., Page, G., Patterson, J., Riedy, C., Strasser, T., et al (2020). Transforming knowledge systems for life on Earth: Visions of future systems and how to get there. Energy Research and Social Science, 70, 101724.

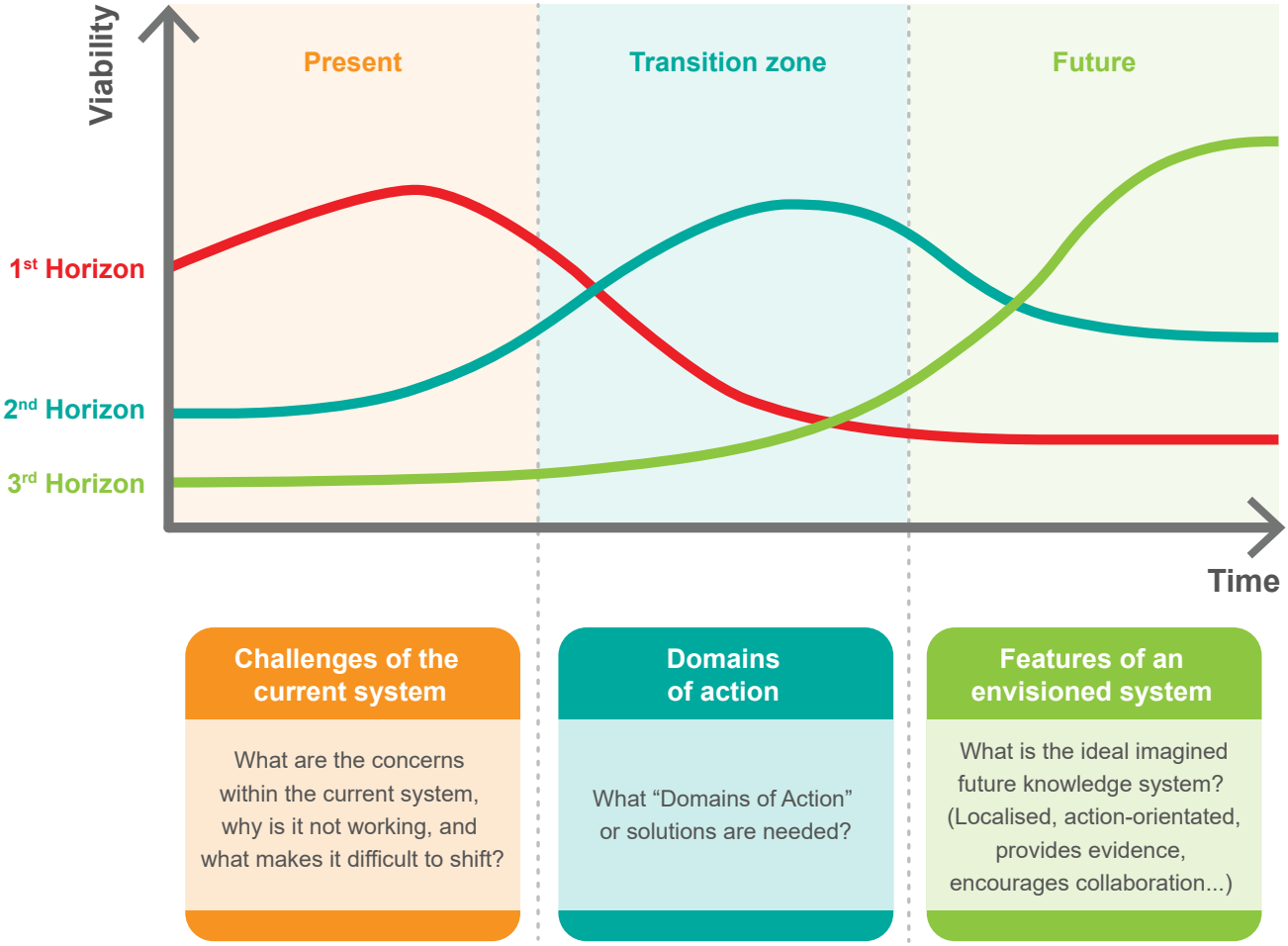


Figure 1: Conceptualising what is required to shift the knowledge system

Overview of the co-creation space

The co-creation process emerged as needs were identified. The process was guided by an Advisory Committee made up of experts from universities, government, funders and multilateral organisations working in LDCs. The Advisory Committee met regularly to give feedback and suggestions for the steps in the process.

The co-creation process started in April 2023 with 20 conversations with individuals affiliated with universities spanning 12 different LDCs across Africa, Asia and the Caribbean. These conversations focused on barriers and enablers to getting local research recognised by government in policy and practice, and gaps in knowledge and information needed to inform adaptation efforts.

These interactions helped shape engagements at the Community Based Adaptation conference (CBA17) in Bangkok, Thailand in May 2023. At CBA17, we held two conference sessions attended by ±20 representatives from universities, funders and international NGOs, and a small post-conference workshop with university staff. These activities focused on presenting findings from one-on-one interviews we had conducted, identifying further barriers to and enablers for action-oriented research, and a set of key principles to guide a new action-oriented research and engagement

programme. Some initial enablers or solutions were also explored that were taken into the next workshop.

In June 2023, we hosted a workshop following the Resilience Evidence Forum in Cape Town, South Africa, attended by 20+ representatives from LDC universities, government and INGOs. In this workshop we shifted focus to spend more time exploring solutions to barriers, including sharing examples of innovative activities and programmes, and the roles that different organisations have to play in implementing these.

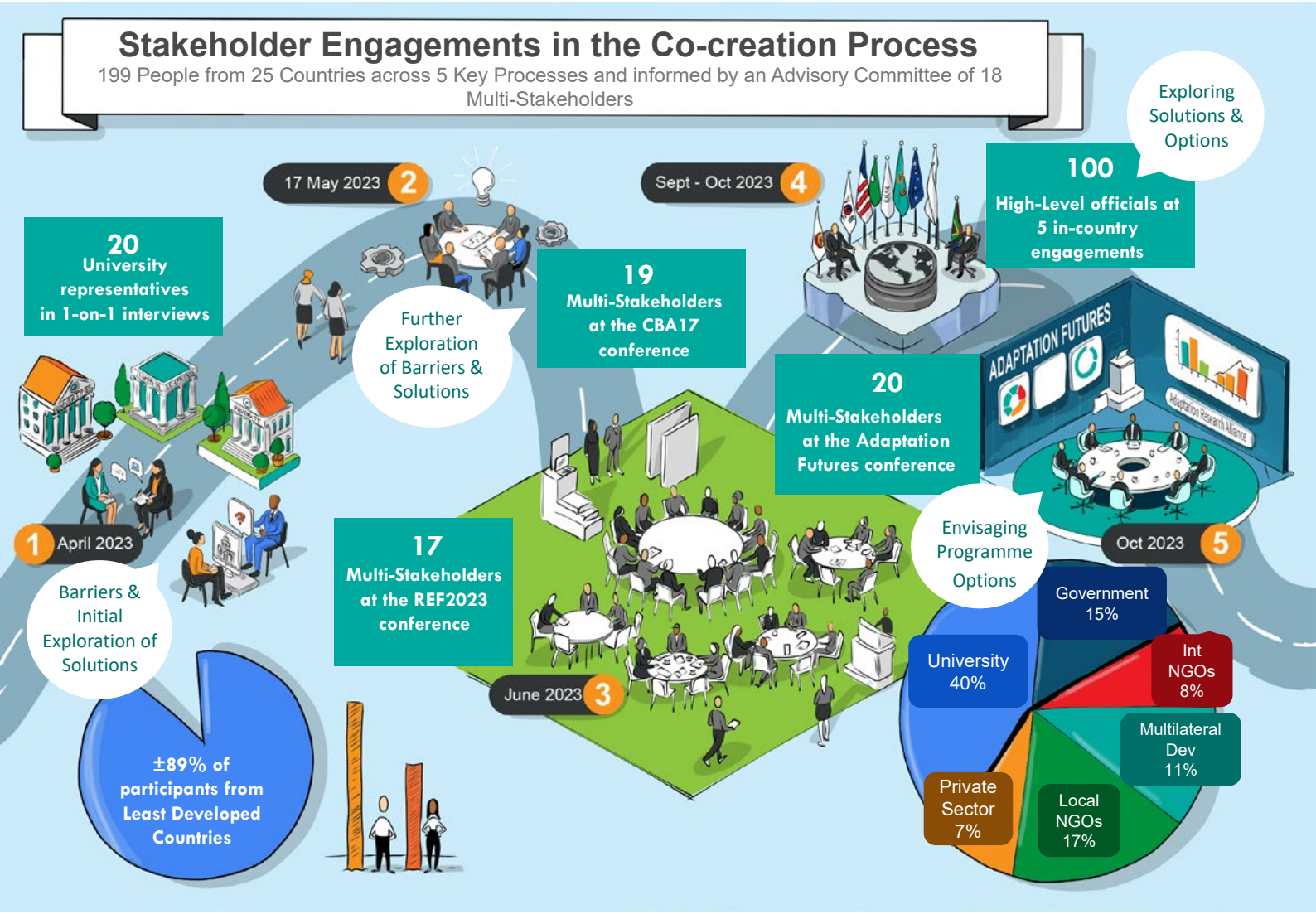
In August and September 2023, we supported LDC university representatives to host in-country engagements in Bangladesh, Liberia, Ethiopia, Haiti, and Mozambique with high-level stakeholders. These in-country engagements focused on understanding what new adaptation policies were being developed and implemented in these countries, and how local researchers could support these.

We then invited anyone who had engaged in the process so far to extend the invitation to join an online workshop, where we shared findings from the process and took a deeper dive into exploring different solutions.

Finally, we went to Adaptation Futures where we hosted a conference session and met with key informants from funding agencies and the coordinators of large programmes similar in nature to the types of solutions we have explored.

The outcomes and findings from these activities are detailed in this full findings report. This report is intended as an internal document for the Co-Creation Advisory Committee to review and discuss how to package and present the findings in useful ways for potential programme funders. The synthesis of the findings are presented next.

Post-conference workshop at the Resilience Evidence Forum (REF2023)



Stakeholder Engagements in the Co-creation Process

Synthesis of the co-creation process findings

Key considerations for a new action-orientated research programme

Barriers

There are multiple barriers that would need to be addressed to shift the current knowledge system to one of localised, action-orientated research that responds to community and vulnerable peoples' priorities and needs and that informs adaptation policy and practice in LDC countries. This would require transformations in the science-policy-practice interface across sectors and scales. For example, changes would be needed in how universities support and view research, how research is undertaken, how funding operates, where and how data can be accessed, the links between research and action (especially large UN and other multilateral funded projects), the opportunities for interaction, and how government engages with researchers and broader society, including how different knowledge is integrated into their ways of working and policy processes. Fundamental to all of this is the need to develop new capacities across all actors in the ecosystem.

Solutions

Similarly, there are multiple solutions to overcoming these barriers and to building a new knowledge system. The proposed solutions emerged repeatedly over the co-creation process and in the review of illustrative examples and were endorsed by all the actors in the knowledge system. Box 1 provides definitions and information on each of these. Like for barriers, to shift the knowledge system more than one of these solutions is required across scales. This means supporting different types of mechanisms, structures and activities at different levels/scales while ensuring strong links between them all. These components of an action-orientated research programme at different scales could potentially be funded individually. This is explained further on the following pages and in Figure 2 at the end of this section.

BOX 1 Structures and solutions identified in the co-creation process

Multistakeholder knowledge platforms (MSP)/networks

Multistakeholder platforms or forums (MSPs) are purposely organised interactive processes. They bring together a range of stakeholders to participate in dialogue, collaborative research, decision-making and/or implementation, with the aim to address a common problem or achieve a common goal. https://www.cifor-icraf.org/gcs/research-themes/multilevel-governance/multi-stakeholder-forums Communities of Practice and Networks have a similar function and for our purpose are substitutable. Some networks may focus on one sector such as universities, but bring in other stakeholders in particular capacities or activities.

Whatever these collective structures are called, their main function is to support regular and constructive communication, sharing and exchange amongst different actors in the knowledge system and to promote ongoing learning and capacity building – all points that were constantly highlighted in our engagements. Many success stories of platforms for sharing university research with government officials and more widely with the implementation community were shared and found via the online search. Some of these focus specifically on bridging the science-policy-practice gap by facilitating evidence-based decision-making. However, having a common focus or theme to orientate around was mentioned as helpful. Since there were concerns about prefixing the theme of the programme, agreeing on what is common between stakeholders might be a first step in the collaboration process. MSPs thus through their different activities play an important knowledge-brokerage role. The need for ***knowledge brokers*** *to assist with translating research and local knowledge into policy and practice was highlighted, particularly at the Adaptation Futures conference.*

Transdisciplinary Centres of Excellence

Transdisciplinarity encompasses ways of undertaking research that intentionally transcends the boundaries within science, and between science and other social and economic spheres, to connect knowledge with action (Klein, 2013; Knapp et al., 2019). TD entails tackling complex and contextually contingent problems, valuing epistemological plurality, and actively involving knowledge holders from outside of academia – operating in civil society organisations, government, business, and industry – in processes of reflection, formulating questions, selecting methods, collecting and analysing data, sharing, learning and producing new knowledge.

The concept of a Transdisciplinary Research Centre that focuses on engagement, collaboration and knowledge translation (i.e. using a relevant definition of Excellence beyond academic impact) was frequently referenced in our engagements. These centres perform multiple activities that all help to achieve the goals envisaged for this action-research programme; i.e. research, training, knowledge brokering, and knowledge translation. However, if hosted at universities there are various barriers to TD research that need to be addressed as part of any programme to support such centres. The idea of Living Labs came up later in the process and is related, but these need not be hosted by universities and generally also include implementation based on research and innovation, which is then monitored with knowledge users (e.g., farmers).

continued ▶

Transdisciplinary national or local-level programme

This category includes multistakeholder, medium-term programmes that combine research, capacity building and engagement for impact. Such programmes should be designed in such a way that funding and time is provided to fully engage with stakeholders in the conceptualisation of the project (including adaptation focus) as well as implementation of the research. Such programmes need to respond to local priorities and be led by LDC researchers. They should be linked to important policy processes that can be facilitated by constituting boards or advisory committees that include policy and decision makers. Such programmes need to be networked across countries and into existing structures (e.g. centres or platforms) that support evidence-based decision-making and social learning.

Knowledge or data portal

Owing to the frequency that issues of access to data were raised, participants in our engagements repeatedly mentioned the value of a data platform where live information, data, previous research findings (including "failures") and project information could be found. This was particularly at national level in LDCs. However, in further engagements it was mentioned that the issue is often not the shortage of data or information but rather the understanding of how to access it and what data is most relevant to the question or concern under consideration.

Capacity-building activities

Capacity building is needed across multiple sectors and levels. Examples that emerged during our engagements included: small grants to support researchers, especially mid-career researchers, to undertake action orientated research; training for knowledge translation and communication; training in fundraising; student research on locally-led adaptation; short courses for government and communities led by universities; embedded researchers in government or vice versa; and training at the tertiary level on transdisciplinary, engaged research and collaboration processes. These capacity-building activities could be embedded to some extent in any of the solution structures mentioned above.

Thematic focus

Regarding thematic areas for a programme (i.e. knowledge gaps), several ideas emerged during the process. One suggestion was to support the development, revision and implementation of climate change policies like NAPs and NDCs. Some of the actions in the NAPS and NDCs are essentially about research for knowledge development in areas where this is lacking. The need for support with monitoring and evaluation of adaptation implementation also surfaced frequently in our conversations. One specific area for adaptation – Locally-Led Adaptation (LLA) – is receiving considerable international attention currently. In this case, local researchers were viewed as being well placed to co-develop knowledge with communities and other stakeholders to support adaptation action that responds to local needs, cultures and priorities. Researchers would also be able to take

such local perspectives up into policy and decision-making processes. Other areas of adaptation mentioned that need research attention included disaster risk reduction, loss and damage, forest management, the implementation of local adaptation plans, migration (internal and incoming from neighbouring countries), agricultural impacts of pests and disease, and water scarcity, amongst others. Some mention was made of the possible value of focussing on geographic areas facing high levels of change or under high risk, for example The International Centre for Integrated Mountain Development (ICIMOD) and the Himalayas, or important river basins.

However, in the online workshop with representatives from the in-country engagements it was emphasised that each country has its own research needs and adaptation priorities at national level, while at the local level research programmes should be developed together with the very people who are impacted by the changes in climate and who need to adapt. So the programme, and the funding for it, needs to be flexible to address what matters most in terms of adaptation in the local context. An NDC or NAP focus was believed to be open enough to do this, as could a locally-led adaptation research programme.

Funding

Issues related to the funding ecosystem were raised in all of the co-creation spaces. These included: the lack of funding post-project cycle; the need for training by funders to support LDC researchers in writing applications; longer funding periods and programmes rather than funding only projects; the need for flexibility by funders to allow for the emergence of new or changing needs and unanticipated set-backs; dedicated funding for creative engagement over the life of the project and to maintain relationships; incentives for researchers and other stakeholders to participate or collaborate; and decolonisation of the funding model through LDC leadership in projects.

Principles and values

In deliberating over the barriers, enablers and solutions in the current knowledge system in LDCs, a set of key guiding principles or values emerged that were considered fundamental to a new action-oriented research programme that enables LDC universities to support national adaptation policy and action.

A new action-oriented research programme should:

- Network and engage with multiple relevant stakeholders in a ‘whole of society’ approach, and be owned by all stakeholders;
- Work with locally-led, community-based and LEK-based innovations and solutions;
- Prioritise relationship bridging and building for long-term partnerships (over new information);

- Seek to first understand what knowledge and data exists, who has access to it and who needs it (before conducting new research which may duplicate efforts) and avoid duplication of effort;
- Support multidirectional knowledge sharing and translation of scientific/ technical, local and indigenous knowledge;
- Be flexible and give applicants the power to negotiate and to adopt locally and culturally relevant actions and success criteria;
- Prioritise impact and accessible knowledge beyond academic papers, recognising the gaps in academic publications and broadening credibility to other forms of knowledge dissemination;
- Recognise the politics, power constraints and complexity that all actors in the knowledge system operate in and builds their capacity to respond to these appropriately.

Main learnings from illustrative examples

There are many existing Global South initiatives that provide excellent examples of the range of solutions identified in our co-creation process (see Table 1). These provide an opportunity for learning and could be replicated or built on. Some of the initiatives identified could become potential role players in different options for the action-orientated research programme.

That said, there are relatively few initiatives where the main partners are university, government, and multisectoral agencies and even fewer that have representation from civil society and vulnerable communities, or the private sector, although many mention that they work with communities. Some of the platforms and centres had their own “in-house” researchers rather than working closely with university researchers. There seems to be a space for a broader, multistakeholder-type initiative that is more inclusive of all actors in the knowledge system, such as the African Research and Impact Network (ARIN) or the African Institute for Development Policy (AFIDEP).

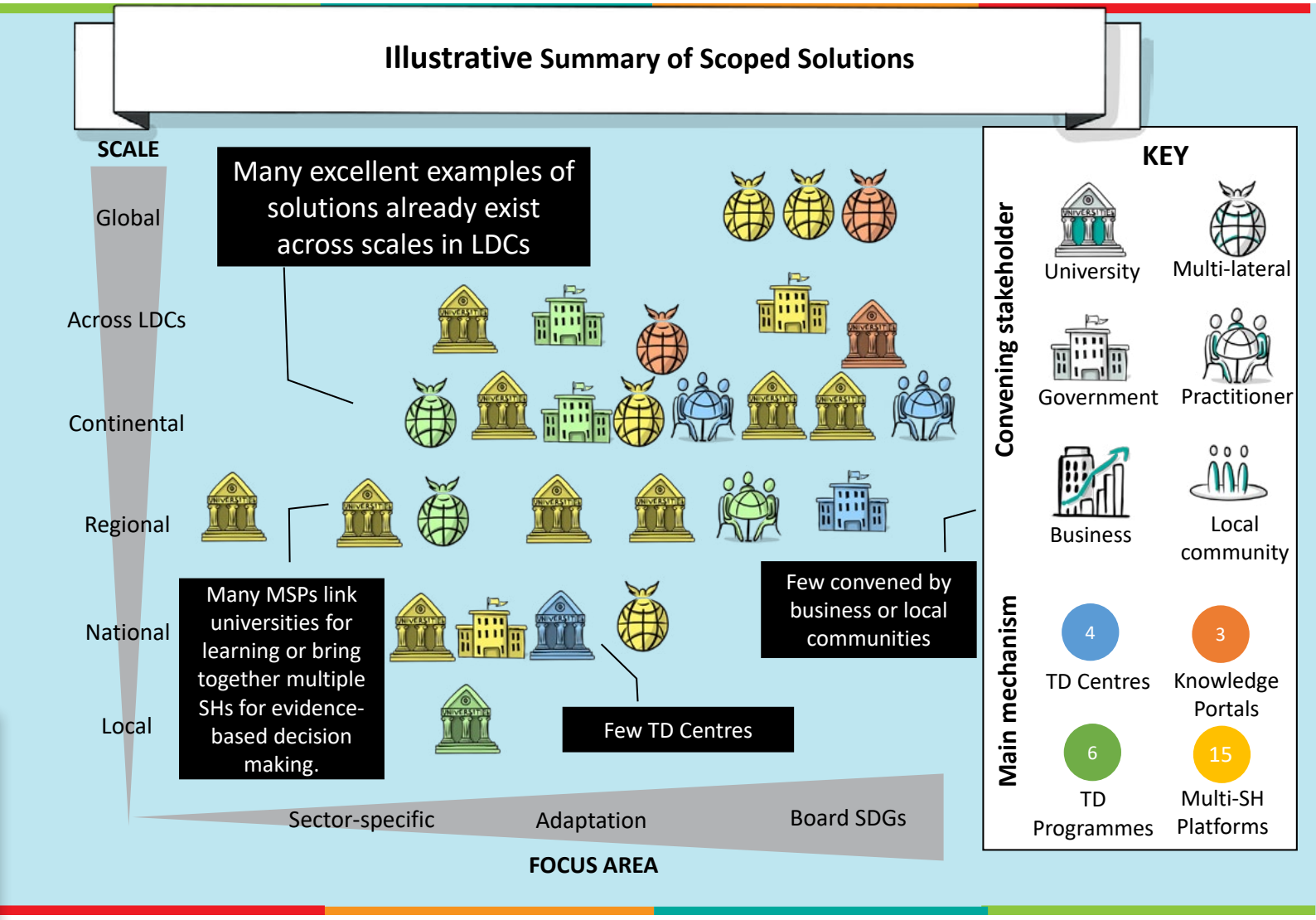
Having a central node, such as a transdisciplinary centre like the International Centre for Climate Change and Development (ICCCAD), the Horn of Africa Regional Environmental Centre, or AFIDEP can provide the coordination and continuity needed to support an MSP, Community of Practice (CoP) or network. At the same time such a centre can support other important activities to overcome the barriers to evidence-based policy and decision-making and to drive the action-oriented research agenda forward.

The review also suggests that *solutions are needed across scales to achieve the necessary systemic shifts in the adaptation knowledge system to support action-orientated research that can contribute to policy and practice. This may mean supporting different types of mechanisms, structures and activities at different levels/scale while ensuring strong links between them all.* These components of an action-orientated research programme at different scales could potentially be funded individually.

The governance systems of each of the initiatives are varied although the initiatives may have similar functions and objectives. For example, similar initiatives may be hosted in different ways and have different governance systems. The Horn of Africa Centre and network has similar objectives to the International Centre for Integrated Mountain Development (ICIMOD), but the former is hosted by the University of Addis Ababa while the latter is an independent centre initiated by Himalayan countries. The benefits and drawbacks of these different governance systems, and how they influence sustainability, needs some consideration in whatever programme options we suggest. Some of the project- and programme-related initiatives have a limited life span, although Policy Action for Climate Change Adaptation (PACCA), for example, found ways to embed the MSPs in government, who have taken on the responsibility for these and also for replicating the MSPs in other areas.

Many of the networks are relatively new. This points out the growing concern around the lack of use of evidence in policy and practice and the urgent need for mechanisms to address this. Out of our examples, ICIMOD is the longest standing, and this may be related to its governance system as an initiative of Himalayan countries where each makes a contribution to funding the centre. This in turn provides motivation for other funding support.

Post-conference workshop at the Resilience Evidence Forum (REF2023)



Post-conference workshop at the Resilience Evidence Forum (REF2023)

Multiple configurations for a new action-orientated research programme

Figure 2 illustrates the many ways in which the solution structures might be configured. On the left-hand side we have captured the values that have emerged from this co-creation process so far, which should be embedded within any programme, no matter what the final design or structure.

Four broad and overlapping categories of structures have emerged: Multistakeholder platforms, Transdisciplinary Centres of Excellence, Transdisciplinary Programmes, and Knowledge or Data Portals. The scope of focus of a structure may vary substantially, from the Sustainable Development Goals (SDGs) and sustainability broadly, to climate change adaptation specifically or a narrower theme such as locally-led adaptation, national adaptation plans, or a specific sector such as urban issues or forestry.

Solutions may function at very different scales: globally, across LDCs, continentally or focusing on a specific region within a continent, or even at national or local level. Structures will also be convened and led by different stakeholders. For example some are oriented towards university research, while others are government-focused or led by civil society actors or multilateral development agencies. Their governance systems thus also vary.

Finally, their core activities might include capacity building (such as a transdisciplinary centre delivering short courses); generating research; knowledge brokering by straddling different spaces; convening stakeholders through conferences, workshops and meetings; facilitating policy dialogues; producing popular knowledge outputs; and providing funding.

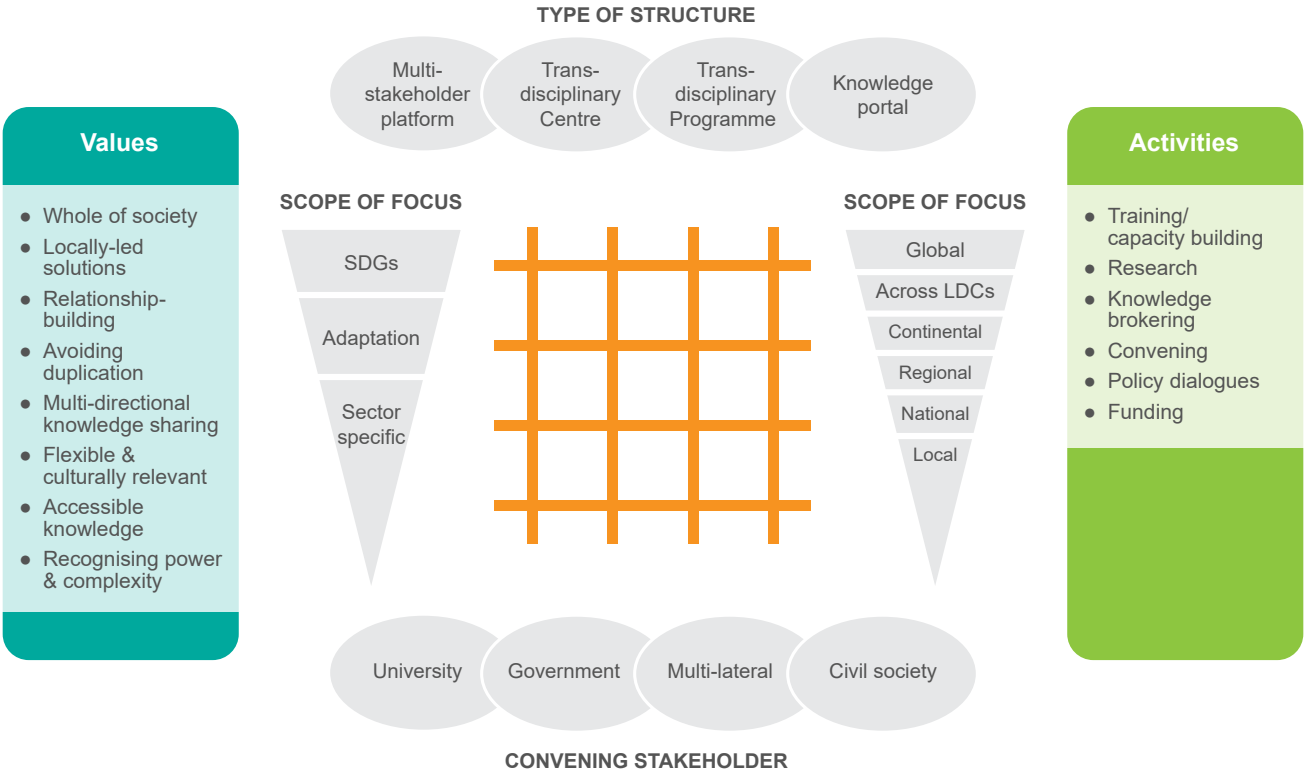
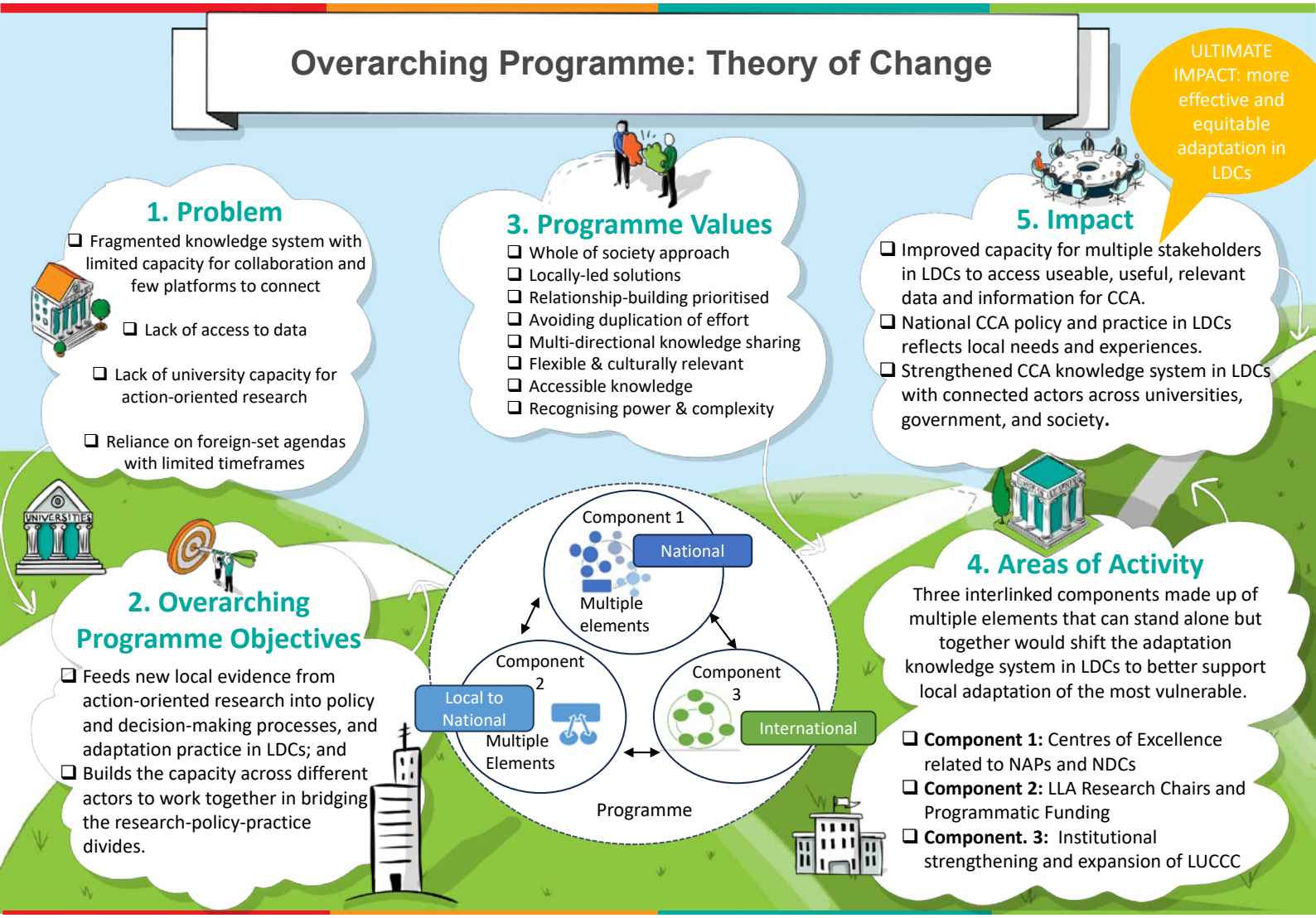


Figure 2: Multiple configurations for a new action-orientated research programme

Programme concept

Overarching Programme: Theory of Change

To achieve the desired outcomes and impacts and foster more effective and equitable adaptation in LDCs requires a research programme that can shift the adaptation knowledge system from one that is dominated by foreign-set agendas, low local capacity for action orientated research and poor engagement with policy makers and practitioners to one that is locally led, well-integrated with national and local policy and practice and that support learning across LDCs regionally and globally.



Overarching Programme: Theory of Change

To drive the changes needed, three interlinked programme components were identified in the co-creation process that together constitute the overarching programme (see above Overarching Theory of Change).

The first component focuses at the national policy level and is linked to the Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs). The second focuses at the local level and supports locally led adaptation research. The third operates at an international level, playing a role in supporting learning through coordination and networking.

All these programmes have action-oriented research at their core and would adopt the principles and values identified through the co-creation process and described above (page 8).

Each programme intentionally does not have a narrowly determined thematic focus. The need for thematically open calls and action-oriented research that responds to country and subnational contexts and adaptation priorities was emphasised across the co-creation process. Hence, the components, have a broad boundary (e.g. NDCs/NAPs and Locally Led Adaption) and focus more on the structure, mechanisms and Terms of Reference such as partnership composition and eligibility.

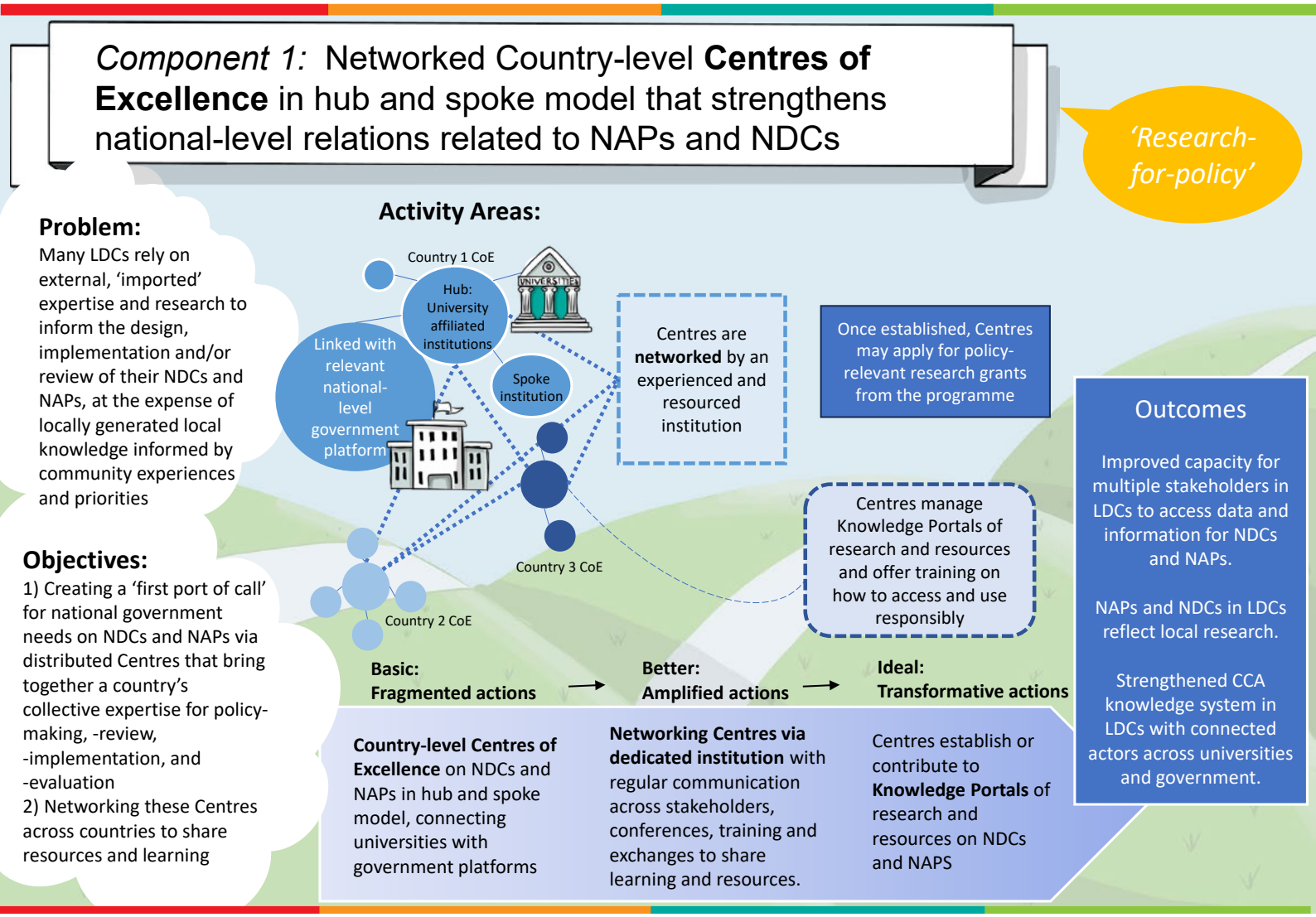
Each component description below includes examples of existing institutions and programmes emerging from the illustrative case studies of solutions (see section from page 40), as we strongly believe in minimising the duplication of effort wherever possible. These examples are detailed in the Appendix.

Ideally all three components are necessary to bridge the science-policy-practice gap and to achieve the impacts highlighted above. But not all components have to happen simultaneously; each can be implemented individually through funding from different donors. These components are complementary, and we believe that collectively they would make a significant shift in transforming the adaptation knowledge system in LDCs. However, each component, or even each element, can stand alone and may be funded separately as well. In this way, the ARA may be able to identify suitable funders for the full set of elements and programmes over time.

The pages that follow describe these components and elements in more detail.

Component 1: Networked Country-level Centres of Excellence in hub and spoke model that strengthens national-level relations related to NAPs and NDCs

This programme's three main elements are (i) country-level Centres of Excellence, (ii) a community of practice that supports networking and collaboration across these Centres regionally and globally, and (iii) a knowledge portal that each Centre builds over time.



Component 1: Networked Country-level Centres of Excellence in hub and spoke model that strengthens national-level relations related to NAPs and NDCs

Element 1: TD Centres for Excellence in Adaptation Policy and Practice

Structured as a hub-and-spoke model with one hosting hub university for each Centre, connected with other universities in the same country. Having country-focused Centres (as opposed to universities spanning multiple countries) is more suited to the focus on national-level policy such as NAPs and NDCs as countries may be at different stages and have different priorities. In this way countries' expertise is pooled towards supporting its NAPs and NDCs. These Centres must have national government buy-in to see the Centre as the 'first stop' for NDC/NAP reviews and other related actions. We envision a pilot of 6 CoEs representatively distributed across LDCs in Africa, Asia, the Pacific and Caribbean.

Centres would be awarded via a Call, stipulating the following terms:

- Each Centre would primarily comprise institutions in an LDC, and be focused towards that country's NAP and NDC

- Existing university centres and other entities with links to universities are encouraged to apply to act as the Hub, e.g. **ICCCAD, ICIMOD and/ or the Himalayan Universities Network, The Horn of Africa Regional Environment Centre and Network, the LARA programme**
- The Centre must establish a Board or Steering Committee with multiple stakeholder representation that meets regularly for strategic planning and to guide research that is appropriate to the feeding into the NDC and NAP policy cycle
- The first step for each Centre will be to bring researchers, government and practitioners together to review policies (i.e. NAPs, NDCs) and co-design the research agenda of the Centre
  - Research for policy making
  - Research as part of policy (e.g. where NDC stipulates research needs)
  - Research for policy implementation, i.e. laying the groundwork
  - Research for evaluation of implementation
  - Policy review
- The same funders that fund the Centres need to invest a pool of funding available for research and capacity building that the Centres can apply once they are up and running
- Each Centre must link with (and have the support of) a national government-level platform that includes practitioner representatives, e.g. **Mozambique's National Support Office of the African Union Champion of Disaster Risk Management, SAPCC, Mekong River Commission, platforms established under PACCA**
- Each Centre must establish built-in mechanisms for regular engagement with policy-makers (sharing research findings, discussions of policies) and offer training on action-oriented research for researchers, policy-makers and practitioners (i.e. the training needs identified through the co-creation process, see page 23) [SS4]

Element 2: Community of practice around the CoEs for networking and collaboration

- This component needs its own dedicated funding to focus on strengthening the capacity of the CoEs, capturing and sharing lessons across the CoEs (including conferences), sourcing resources, and amplifying the impact of the CoEs
- Builds capacity of national government and policy-makers, e.g. **AFIDEP**
- Promoting this programme for national-level buy-in leveraging other government networks, e.g. **LIFE-AR, LEG and AKADEMIYA 2063**

- Annual conference ideally partnered with government, such as the **Global Change conferences**
- Could be managed by an organization with existing links and networking mandate across LDCs, e.g. **AFIDEP, AKADEMIYA2063, ARIN, LUCCC**

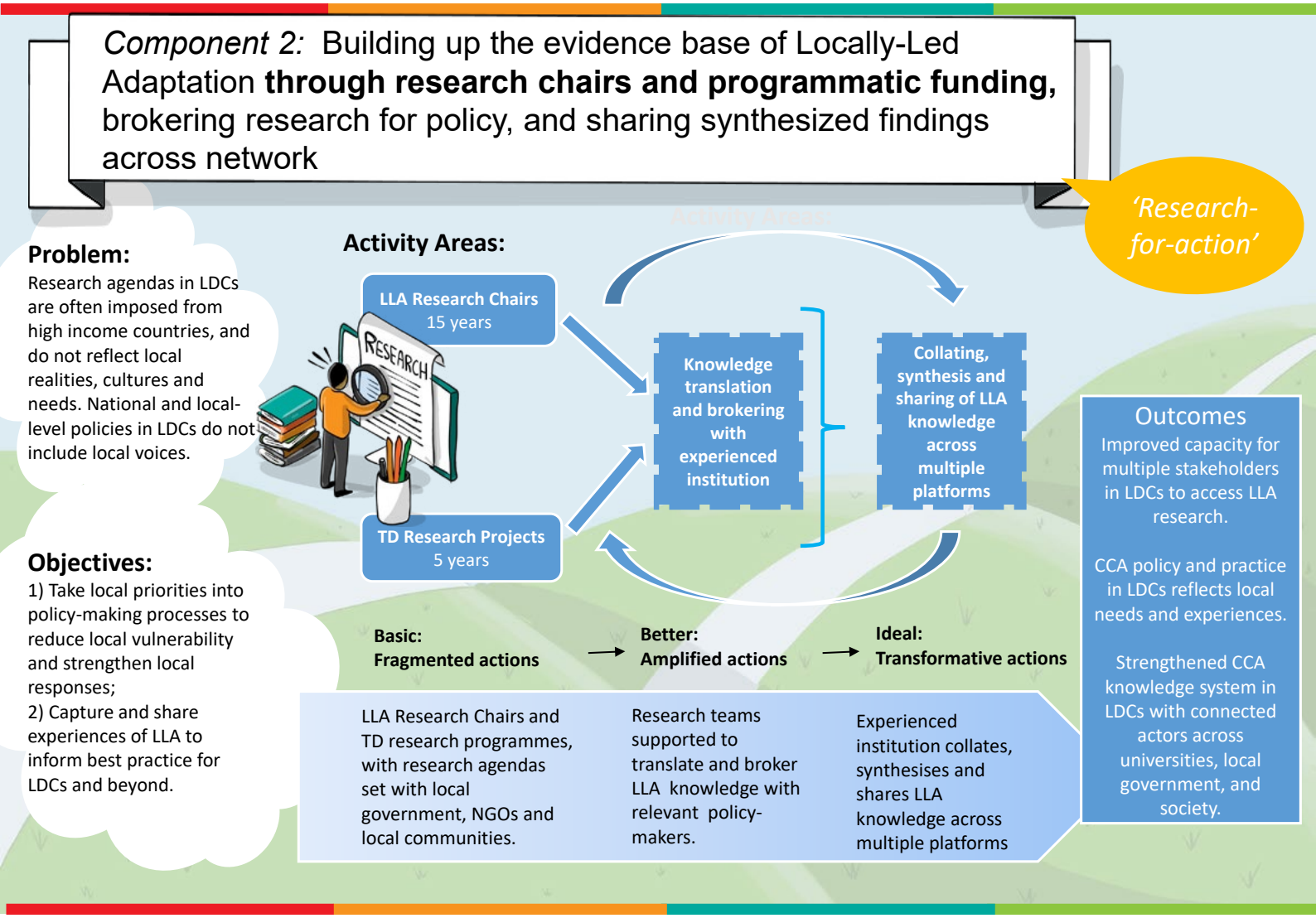
Element 3: Knowledge Platform

- Each Centre must establish and maintain (or support an existing) Knowledge Platform that collates adaptation resources for the country, and the research-to-policy work of the Centre. This may not necessarily mean housing data on the platform, but could mean linking to other relevant data and information portals.
- This element must further offer training to policy-makers and researchers on how to access and synthesise the wealth of available data, and how to identify gaps in existing data where new primary research is needed.
- As there is often bother a wealth (of some types) and dearth (of some types) of data simultaneously, such an element must take care to not duplicate existing efforts.

Although this programme concept includes mechanisms for reviewing on-the-ground implementation it can arguably be seen as 'top-down'. We envision this programme as complementary for Programme 1b that follows, which is arguably more 'bottom up' as it emphasises avenues for getting local-level knowledge into policy.

Post-conference workshop at the Resilience Evidence Forum (REF2023)

Component 2: Building up the evidence base of Locally Led Adaptation through Research Chairs and programmatic funding, brokering research for policy, and sharing synthesised findings across a network



Component 2: Building up the evidence base of Locally Led Adaptation through Research Chairs and programmatic funding, brokering research for policy, and sharing synthesised findings across a network

This component focuses on building up the evidence base on locally led adaptation to inform local-to-national policy and support community-level adaptation action. In this bottom-up approach, local adaptation priorities and needs are integrated into national level policy processes though collaboration with the Centres of Excellence mentioned in Component 1 or through knowledge brokering and synthesis entities.

At the same time, through partnering with practitioners, the research can be designed to support more effective local-level implementation of adaptation actions. This programme's three main mechanisms are (i) Research Chairs and Transdisciplinary research projects, Knowledge translation and brokering, and (iii) Knowledge Sharing and Synthesis. It holds **IIED's 8 principles of LLA** (see box).

IIED's eight principles of LLA:

1. *Devolving decision making to the lowest appropriate level*
2. *Addressing structural inequalities faced by women, youth, children, disabled and displaced people, Indigenous Peoples and marginalised ethnic groups*
3. *Providing patient and predictable funding that can be accessed more easily*
4. *Investing in local capabilities to leave an institutional legacy*
5. *Building a robust understanding of climate risk and uncertainty*
6. *Flexible programming and learning*
7. *Ensuring transparency and accountability*
8. *Collaborative action and investment*

Element 1: Research Chairs and Transdisciplinary research projects

We propose a pilot of 12 Research Chairs that span 15 years. These Chairs would be modelled on **the OR Tambo Research Chair in Ecosystem-based Adaptation in Arid and Semi- Arid Zones**, which has a large emphasis on engaging with local communities and feeding findings back to national-level policy makers. Chair programmes must include local communities, local NGOs, local government and university researchers. The research is undertaken by post-graduate students and postdocs. This programme may be implemented by an agency such as the **African Academy of Sciences, supported by SGCI**.

We propose a series of open transdisciplinary research calls, that are modelled on the work of the **LIRA programme** by integrating multiple stakeholder engagement, strong policy linkages, and early-career researcher development and opportunity.

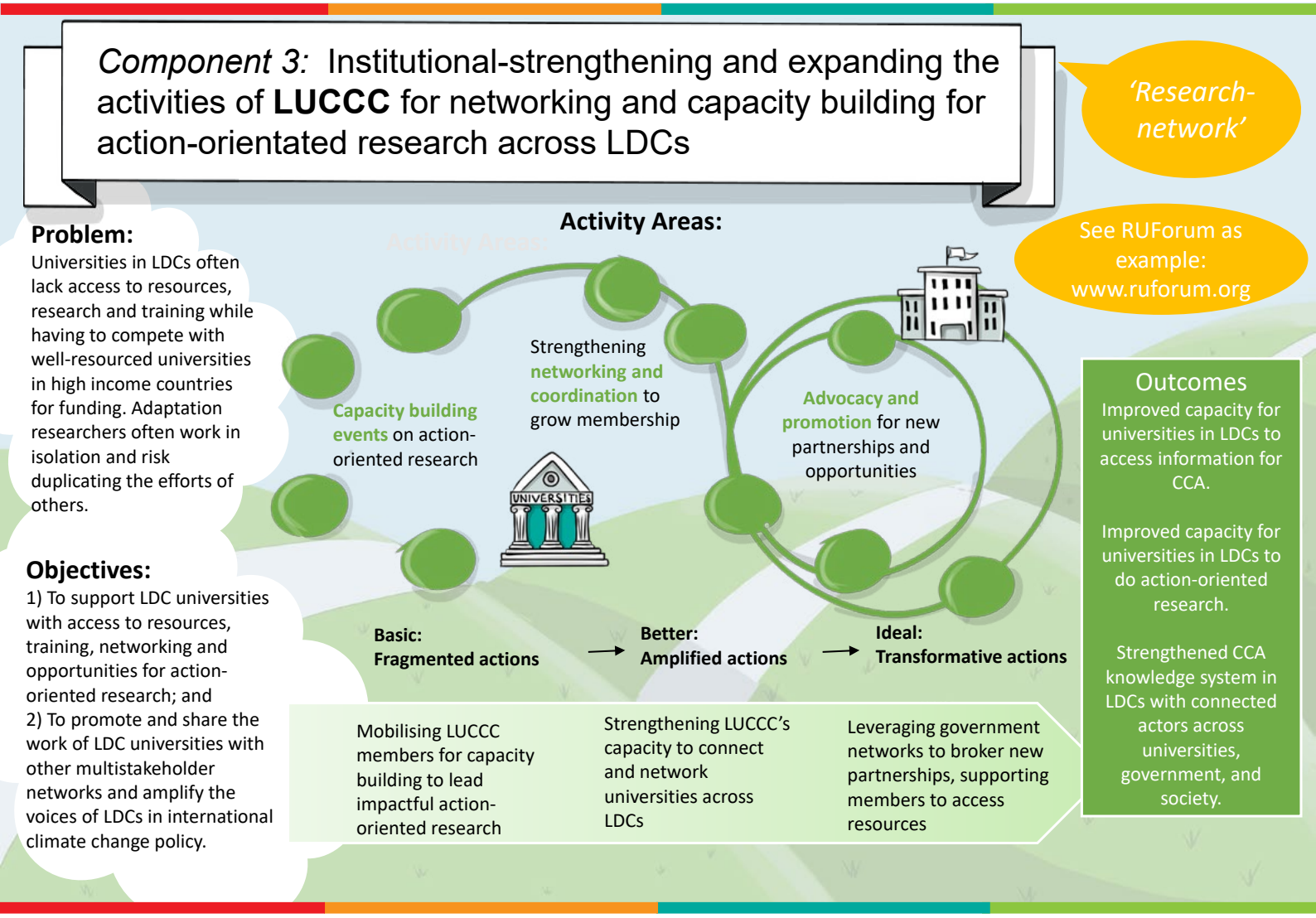
Across both the Research Chair and research projects, we propose a close working relationship with local communities to explore local needs and priorities to inform the research agenda, with governance structures that include representatives from communities and local NGOs, local government and national government. Partnerships with local NGO are important to facilitate community engagement. The programme must include capacity building of these local organisations to work together and take part in action-oriented research, modelled on e.g. **PACCA's work building capacity of local government**.

Element 2 and 3: Knowledge translation, brokering and synthesis

A key component of this programme is innovative multi-directional knowledge translation and sharing – in other words, turning research data, local voices and policy into accessible forms for multiple audiences: communities, researchers and policy-makers. We envision an entity to hold and drive this work, such as **AEN or ARIN, or the new Synthesis Centre ASCEND**.

Across Component 1 and 2, we propose research findings are shared through evidence sharing platforms such as **TEN, TEFN and We-Adapt**.

Component 3: Institutional-strengthening and expanding the activities of LUCCC for networking and capacity building for action-orientated research across LDCs



Component 3: Institutional-strengthening and expanding the activities of LUCCC for networking and capacity building for action-orientated research across LDCs

The Least Developed Countries Universities Consortium on Climate Change (LUCCC) is an existing network that supports LDC universities. Since networking is such a vital element of any action-oriented research programme, in this component we suggest additional support to LUCCC to carry out several critical capacity development functions. It could also act as the coordinating platform and network suggested as an important element of Component 1 and 2.

This component would focus on strengthening and expanding the activities and influence of LUCCC to support LDC universities with access to resources, training, networks, opportunities for action-orientated research and knowledge brokering. It would play an important role in fundraising, advocacy and connecting researchers globally and with international stakeholders and policy processes such as Life AR or the Least Developed Countries Expert Group (LEG).

We found the example of RUForum an inspiring model for LUCCC to learn from. RUForum is focused narrowly on agriculture, but its range of activities and influence are well-suited for the vision of an active LDC-university network on climate change that can be used as a platform for building capacity for action-oriented research.

- **Networking and coordination:** Strengthening LUCCC's capacity to connect and network universities across LDCs via an up-to-date website promoting network activities, a regular newsletter, and regular online and in-person events
- **Resourcing:** Supporting member universities to access resources via sharing opportunities, fundraising new programmes, pooling and mobilising resources for economies of scale around common interests.
- **Advocacy and promotion:** Engaging with policy makers around climate change, leveraging government networks such as **LIFE-AR, LEG and the African Union Commission**, to help broker new partnerships for action-oriented adaptation research and policy influence.
- **Capacity building:** Institutional strengthening to lead impactful action-oriented research, mobilising of resources for small grants for mid-career researchers to lead their own research projects and for scholarships particularly for Masters and PhD.
- **Community Development:** Building capacity for community engagement, creating platforms for community engagement with other stakeholders and showcasing local stories of impact.

Detailed overview of co-creation process activities and outcomes

Advisory Committee

One of the first steps in the co-creation process was the establishment of an Advisory Committee to provide strategic oversight and guidance through meetings held at key stages. The Advisory Committee comprised 17 individuals (8 women and 9 men), spanning multiple sectors: Research (7), Funding agencies (4), NGO (2) Government (2), and UN agencies (2).

One-on-one engagements

Process

To develop an initial understanding of the context, research needs, barriers and enablers to action-oriented adaptation research in LDCs, we began the co-creation process with a series of one-on-one interviews with LDC university representatives.

We had conversations with 20 representatives from universities in LDCs: predominantly active lecturers, with some conveners of university research networks and university associates – former lecturers who went on to work in other fields but maintained a relationship with their university. These representatives were from Bangladesh (4), Bhutan (3), Ethiopia (2), Haiti (1), Liberia (1), Malawi (1), Mozambique (2), Tanzania, Zambia and Zanzibar, thus broadly covering LDCs in Africa, Asia and small island development states. Of the 20 representatives, 6 were women.

The interviews lasted an hour and covered their experience in adaptation research, barriers and enablers to action-oriented research, and needs for new adaptation research in their country.

Outcomes

Common trends

- General picture of fragmented and siloed institutions with limited capacity or experience of working together.
- Common story of resource-constrained and under-pressure university researcher brought into adaptation research through multilateral organisations (e.g. either

field work, capacity development community engagement, advisory role), who then manages research uptake and the government relationship.

- Academics increasingly brought into implementation as global efforts and funding shift.
- Adaptation policy often "on paper" only and not put in practice, and common need for more practical "how to" knowledge.

Barriers

Government-related barriers

- Lack of attention to climate change in certain policies and lack of recognition of research, and its role, in climate change related policies.
- Government bureaucracy impedes research uptake into policy and access to policy makers.
- Even when academics share their work through policy briefs they do not know if it is read or used.
- Ideological differences and political agendas within government.
- Limited practice of research informed decision-making amongst policy makers and some lack of understanding of on-the-ground realities.
- Lack of capacity in government to use research, or knowledge of how to generate their own research needs.
- Policy is developed but not implemented, or decision-making and policy implementation is very slow, leading to frustration.
- Turnover in government staff leading to a loss of relationships and capacity in government partners.
- Lack of state funding of research that is directed at what government needs and will use. Government expects academic researchers to be able to do research for them without additional funding.
- Researchers and policy makers have different ways of thinking which makes relationships difficult.
- Government does not see the value of engaging with universities.
- Lack of commitment by policy makers to engage meaningfully with research and researchers despite efforts to include them, (for example, they do not stay for events but give a speech and then leave).

University-related barriers

- Lack of research capacity.
- Insecure, soft funded positions, especially for early career researchers.
- Limited state funding to universities.
- Lack of time to undertake research due to heavy teaching loads.
- Limited data (or access to data) to support policy making. For example, most universities are not able to afford access to important journals.
- Researchers, and departments, working in isolation, leading to potential duplication of effort.
- Lack of experience in co-creating and co-producing research.

Funding-related barriers

- Few funders provide funding for meaningful stakeholder engagement.
- Project funds often aren't sufficient to cover salaries for researchers.
- Donor priorities drive research agenda.
- Project funding periods are often too short for sustained engagement and for monitoring impacts.

Other barriers

- Government frustration with development agencies implementing adaptation projects (usually diversified livelihoods programmes) that do not actually lift people out of poverty, sometimes have unintended negative consequences, or are inappropriate for the local context.
- General weak capacity in terms of what is needed for collaboration and co-production.
- Challenges in getting multiple stakeholders together in a collaborative space.
- Multiple language barriers, for example science-policy-academia, and different languages in countries.
- Siloed working in universities and government.

Enablers

Often the enablers are in the inverse of the barriers – for example, if lack of funding is a barrier, then sufficient funding is an enabler. Some examples include:

- Training and capacity building in climate change creates positive outcomes and makes it easier to work together at all levels amongst different stakeholders (e.g. extension services, students, researchers, government policy makers and practitioners).
- Innovative platforms for more engagement across research, policy and practice (e.g., national multi-stakeholder conferences, national platforms and committees, local level committees).
- Having a university contact point (e.g. department or centre) that has a relationship with government and is able to share useful student research findings.
- International agency involvement as a "broker", (e.g. UNDP can help connect researchers and put pressure on government to bring in researchers and research evidence).
- Innovative models for bringing policy makers, practitioners and researchers together, (e.g. embedded researchers where a government official sits in an academic department part time, or vice versa).
- Climate change needs to be introduced into education and training so that ultimately all parties understand the threats and the need for working together.
- Advisory groups for academic projects that include government officials.
- Learning how to translate and communicate research in ways that are understood and appealing.

- Virtual or physical centres of excellence at national or regional level that are able to build long-term partnerships with government and bring researchers together.
- Researchers and universities need to work harder at communicating with government and politicians.
- More research to provide good quality data that can be shared and used by government.
- Networks can bring together LDCs and global north partners, so the latter can contribute more funding.

Research needs and research capacity gaps

- Climate data and information (e.g. for early warning systems, across diverse ecological zones, particular contexts, socio-ecological and climate data downscaled to decision level).
- Adaptation research needed on flooding, internal migration, climate impacts on agriculture, adoption of adaptation techniques.
- Understanding of adaptation impacts and appropriate and effective options. What makes for effective adaptation in specific contexts? What works, what doesn't, where?
- Monitoring of adaptation interventions.
- Capacity to involve stakeholders more in adaptation planning, (e.g. co-developed adaptation plans).
- Understanding of bottom-up, community based adaptation, how people are implementing climate change adaptation, and changing agricultural practices.

Capacity needs for action-oriented adaptation research

- Planning, designing, implementing and monitoring adaptation projects within government agencies and civil society organisations.
- Training on climate change and using climate information, localised interpretation of climate data for mid- and local-level government
- Training and better curricula for extension services.
- raining and development of improved curricula on climate change in all education systems, (e.g. across schools, undergraduate, local community level, etc).
- Translating and communicating research for non-academic audiences.

Community-Based Adaptation Conference (CBA17)

Process

The team organised two conference sessions during the "Community Based Adaptation 17: Local solutions inspiring global action" workshop in Bangkok, Thailand from May 22 to 25, 2023. These sessions aimed to collect insights from various stakeholders in adaptation research and understand the challenges faced in local adaptation and research.

Over 20 participants attended the sessions, with 14 coming from Least Developed Countries (LDCs). Among the participants, 9 were from universities, 2 represented funders, 8 were from NGOs, and 1 was associated with a think tank.

The first session, titled "ARA Co-Creation Space: Unlocking LDC-led adaptation research uptake," involved participants interacting with a canvas featuring key stakeholders in the research cycle. They discussed barriers to adaptation research and potential solutions, represented by hazard signs and bridges, respectively. A consolidated map of these barriers and interactions was made available for further engagement.

The second session, held on May 24, 2023, was titled "ARA Co-Creation Space: Identifying knowledge gaps for adaptation action in LDCs." It used the world café method to explore knowledge gaps required for adaptation policy and implementation. Small groups engaged in rotating conversations, sharing ideas and perspectives on the topic.

The Post-CBA17 Workshop brought together six sponsored LDC university representatives and the Head of the ARA Secretariat. The agenda included feedback from the CBA conference, analysing conference sessions, envisioning an ideal knowledge system, and discussing ideas for achieving excellence in knowledge systems.

Findings

Further insights into barriers

The conference session reiterated the barriers presented to the groups, which were derived from analysing the one-on-one engagements with LDC university representatives. New barriers were added, including:

- Government bias for priorizing Global North knowledge
- Universities: Lack of capacity to do rapid or applied research, no time for "slow scholarship", competition for ownership of IP in relation to funding opportunities, a bias for politically correct research, researchers not addressing community needs
- Development Agencies: The language used creates barriers,

entrenching inaccurate and unjust divides (e.g. LDCs and Global South)

- Communities/Society: Poor governance and power dynamics playing out at the local level
- All entities: Incentive systems of all actors are misaligned and hinder collaboration, local and indigenous (knowledge) not visible in reporting, climate information and data is not accessible or easy to interpret, participation and inclusion is tokenistic, (varied) knowledge(s) are seen as incompatible, a low incentive to act: no destination for knowledge.

Additional stakeholders or institutions within knowledge production and/or research system were marked by session participants. These were presented on consequent engagements and illustrated on the knowledge production/research system map, and included: UN, International Climate Policies (UNFCCC), Donors, Banks, INGOs, Private sector, Media, CBOs, Local leadership.

While co-analysing the barriers and enablers identified through the conference session, the group found it easier to cluster the barriers that could collectively be addressed via certain enablers. Please note that barriers may be addressed by other "cluster enablers" than the cluster it is listed under below (for example, data sovereignty could be addressed by a transdisciplinary Centre of Excellence or by a live repository of available data).

Cluster one: Barriers that could be addressed via a platform for sharing and collaboration between government and universities. Barriers in this cluster include: Absence of a mechanism, guidelines or structure of coordination and alignment of priorities; tendency for politically-correct responses; government feels that researchers don't understand institutions and policy-makers needs; slow decision-making processes in government.

Cluster two: Barriers that could be addressed via transdisciplinary Centres of Excellence focused on engagement, collaboration and knowledge translation.

Cluster three: Barriers that could be addressed by a live repository of available data. Barriers related to time demands and capacity constraints of university staff, which could be addressed via fairer incentives structures or promotion criteria and structured work mandates (for example, 50% teaching, 30% research and 20% community service) at universities.

Knowledge gaps

In co-analysing the second conference session, the group reflected that there were many overlaps between the "Know What", "Know How" and "Know Why" world café groups, and that these did not point to specific knowledge gaps so much as guiding principles that a new action-oriented research programme should strive towards.

1. "The what is the who": We need to understand who has the need for information, who has the capacity for using it, who has the knowledge or holds data and who needs it (e.g. in situations where data collects data, or sits behind paywalls; data may exist in latest IPCC Africa chapter or GAMI).

2. Multidirectional knowledge translation (not just top-down or bottom-up) that translates technical, local, local context and indigenous knowledge (e.g. changing the way that weather is recorded/reported as "average" is now meaningless).
3. Respect for multiple knowledges and cultures in the research process and in research products generation by using inclusive research approaches that acknowledge local cultures (e.g. recognising that hierarchies in groups may restrict freedom/ truth).
4. Understanding the gap between academic publications vs practice on the ground (links back to 1 above), needing to capture failure, giving recommendations that suit local contexts (e.g. of political instability), sharing information so that there isn't a duplication.
5. Broadening credibility to include other forms of public publications (i.e. not only academic journals but newspaper opinion pieces), student research, multiple disciplines and sectoral departments (e.g. Physics department isn't only department able to do energy research), acknowledging multiple results frameworks and measures of success (e.g. not only the funders).
6. Inter-connection of climate change and other issues, capacity to navigate complexity of the system, need for holistic data (e.g. Reports on water quality sent back to the university by government only wanting certain more favourable information included)
7. Almost all participants mentioned the issue of access to information/ publications and that all used free third-party access due to paywalls and local access issues.

Reflections from CBA17

The CBA17 conference raised several key issues that workshop participants felt were relevant for the design of a new action-oriented adaptation research programme:

- *Common Purpose and Trust:* Participants emphasised the need for common purposes and mutual trust among stakeholders working on research-policy linkages. Belief in each other's intentions is critical for effective collaboration.
- *Decolonising Knowledge:* Discussions highlighted the importance of decolonising knowledge. Participants shared their lived experiences, reflecting on how initiatives led by individuals from the Global North often receive more funding and attention. They noted that much of the literature is in English, creating barriers for non-English speakers. Additionally, the high costs and constraints of academic publishing and the definition of research value and impact need to be reevaluated.
- *Language Barriers:* Language barriers, particularly in the terminology used by funders, were recognized as a challenge. Researchers often need to adapt their language to align with funders' visions and missions. Specific terms required by funders may differ from

the language used locally.

- *Data and Journal Access:* Difficulties in accessing data and journal articles were acknowledged as barriers to effective research-policy linkages.
- *Value of Local and Indigenous Knowledge:* Participants highlighted the significance of local and indigenous knowledge. However, language barriers can hinder the explanation of these knowledge systems to other stakeholders.
- *Calls for Evidence and Knowledge:* Unexpectedly, there was a high demand for evidence and knowledge related to Locally-Led Adaptation (LLA).
- *Projectisation of Development:* The "projectisation" of development, with limited timeframes and financial constraints, poses challenges for LLA. Communities often ask, "What's in it for us?" and question the benefits of research.
- *Involvement of Researchers:* Engaging researchers in presenting their work and subjecting it to scrutiny by practitioner audiences was seen as valuable. It helps ensure research is communicated in accessible and practically applicable ways.
- *Stakeholder Involvement:* The importance of involving all stakeholders in the research process to ensure informed decision-making was emphasized. The challenge of gatekeepers in this context was acknowledged.
- *Engaging Funders:* Participants stressed the need to engage funders in the co-creation process. Funders should be part of generating ideas and priorities, considering local needs and agendas. Different funders have varying levels of flexibility, and negotiations should aim to align research programs with local priorities.
- *Community Selection:* Community selection for research can be influenced by accessibility rather than vulnerability or relevance. This practice may need reevaluation.
- *Bigger System Context:* Recognising the broader system in which research operates is essential. Understanding how research aligns with larger initiatives, such as the World Bank's decentralization of finance or Life AR's focus on political space, was highlighted.

Picturing an ideal knowledge system

Participants drew pictures to signify their ideal knowledge system, which they then described to the group. Across the different pictures, common themes and a common vision emerged:

The envisioned knowledge system is characterised by optimism and context-specificity. It fosters collaboration through mechanisms and spaces that serve as bridges connecting society, communities and government. In this system, inclusive policy-making processes ensure that every voice is heard, and collaborative mindsets prevail.

A central hub unites stakeholders, aligning their diverse work with the needs of local communities, providing common platforms for shared endeavours. Spaces

for collaborative work facilitate mutual understanding of issues and languages among policymakers, researchers and communities.

Action-oriented knowledge generation produces publications that serve local communities. Platforms engage stakeholders in knowledge generation, facilitating questions, expressions, and local demand articulation. Equity and inclusion govern decision-making, creating collective, round-table platforms for assessing priorities and directing resources.

Accessible, non-academic research language promotes understanding and accurate representation of local perspectives, improving information flows and access for various groups. Increased government investment in research and development in LDCs frames policies around locally generated research. Funding supports effective communication, dissemination, and debriefing of research outputs with local stakeholders and participants.

Examples of excellence

The workshop participants shared networks, projects, programmes, CoPs and other entities that they felt were good examples of research-policy-practice work that our co-creation process could learn from:

- The thematic working group for Cryosphere at Himalayan Universities Consortium and ICIMOD provide small grants for Early Career Researchers (ECRs) to support their research alongside capacity building and collaboration between Bhutan, Pakistan and others. It is a requirement that researchers have environmental, economic and social science backgrounds, and the grants have feedback and capacity-building mechanisms built-in.
- COLOCAL: Co-creating knowledge for climate change in LDCs – providing scholarships for Masters students working on CBA at local level (LLA). Thematic research funded by small grants from government for students and staff, enables PhD students to do research. Proposals need to be linked to national priority areas.
- Horn of Africa Research: Project called *Demand-Driven Action Research* – researchers and implementing partners linked by the project come together to work on researchers. Proposals are written collaboratively at a regional level and then submitted to different funders. Practitioners are responsible for engaging with communities and bringing research questions and priorities to the teams. Proposals involve Masters and PhD students to work on these problems. Operating on a regional level, bringing together different East African countries, to form a network

- ICCAD's is positioned within IUB but has a lot of autonomy and a separate financial administration structure, enabling it to do things that universities are not always able to do. Depending on the institution that is funding, their agenda will set the priorities for the type of work that will be funded.
- UNILEAD project focuses on building capacity for climate change adaptation finance. START International (implementing agency) collaborating with research institutions, think tanks established at universities – linked to project sustainability in order to continue the work once funding has finished
- Partnerships for Enhanced Engagement in Research (PEER), in Bhutan is working with NGO facilitation to do transdisciplinary research, and includes capacity building, networking with external stakeholders, promoting policy influence and dissemination. The funding comes directly to Bhutanese partners who administer funds, including for international partners. The project demonstrates the importance of having the right people in the project team with different skills. USAID funding allows for some flexibility in budget reallocations, e.g. with no cost extensions

Resilience Evidence Forum (REF2023)

Process

The Resilience Evidence Forum was a three-day conference held in Cape Town in June 2023, focused on advancing understanding on what works and doesn't work in resilience building. Although the conference did not exclusively focus on climate adaptation, many of the sessions were still relevant to the intersection of climate with other SDGs.

As part of the co-creation process, we supported 10 people from LDCs to attend the conference and then join a workshop the day after the conference. We also encouraged other conference delegates to stay on and participate in the workshop. In total, the workshop had 17 participants (not including the Interfer and ARA teams), of whom 13 were from an LDC, spanning multiple sectors: University (8), NGO (6), Government (2), and UN agency (1).

After introductions and ice-breakers, the workshop focused on reflecting on REF2023, sharing examples of excellence in networks, projects, communities of practice and case studies before breaking into four groups that each focused on different solution spaces: Capacity building, Multistakeholder platform, transdisciplinary Centre of Excellence, and a Data repository.

Outcomes

Reflecting on REF

"What innovations in adaptation research, policy or practice did you hear about in REF2023, that need more attention in LDCs?"

- Private sector engagement: Emphasise the importance of engaging the private sector in adaptation efforts. Encourage collaboration with universities and incentivise their involvement. Recognize that the private sector is diverse, with global and local companies, and understand what works in different contexts.
- Inclusive adaptation: Balance adaptation efforts and address negative externalities. Ensure that adaptation benefits all, including marginalised communities.
- Conflict and CCA: Consider the impact of conflict on climate change adaptation, particularly in fragile states.
- Timeframes for adaptation: Think about both long-term adaptation strategies and shorter timeframes, including loss and damage and DDR.
- Impact assessment: More research, approaches, and capacity are needed to assess and understand the impact of adaptation interventions.
- Learning from failure: Focus on learning from failures and understanding their implications, particularly in the context of impacts.
- Framework for measuring resilience: Advocate for a shared framework for measuring resilience.
- Local and indigenous knowledge: Centre local and indigenous knowledge in research and engage in community-led research.
- Community engagement: Engage with local communities, sharing accessible stories and experiences that resonate with real-life situations.
- Private sector sensitisation: Sensitise and engage the private sector in adaptation efforts, adapting narratives and languages to resonate with different stakeholders.
- Transdisciplinary approaches: Promote multi- and transdisciplinary platforms to strengthen collaboration skills between universities and other stakeholders.
- Use of arts in knowledge co-creation: Encourage the use of arts for co-creating knowledge and adaptation strategies.
- Linking loss and damage for adaptation: Explore the connections between loss and damage considerations and adaptation strategies.
- Data utilisation: Always consider the purpose of data collection and how it will be used.
- Visual representation: Visual representation is crucial for understanding the impact of interventions, learning from failures, and engaging the private sector.

Sharing examples of excellence

"Opportunity to share our experiences in the field of engagement, implementation and policy influence."

- Multistakeholder platforms for evidence-based policy: Success stories highlighted the effectiveness of multistakeholder platforms that bridge the gap between evidence and policy by bringing together various actors and stakeholders.
- Anticipatory action protocols: Some initiatives demonstrated monthly working groups involving local governments, community representatives, and humanitarian organisations to translate information into user-friendly models. However, there is a need for more direct community involvement.
- Resource chests: Mentioned the concept of resource chests as a way to accumulate and share vital resources for adaptation.
- System-based adaptation projects: Highlighted projects that gather evidence from different perspectives to inform a systematic approach to implementation. This involves mapping institutions working at the district level to close research evidence gaps.
- NGO-led multistakeholder engagement: An example of an NGO-led initiative that focuses on issue co-definition with multiple stakeholders, followed by a cycle of dialogue. This approach has been adopted by municipal systems for continued dialogue.
- Role of students at university level: Highlighted a programme in Zambia where Master's students collaborate with local communities to develop plans and present them, fostering community engagement and dialogue.
- Funding call criteria for collaboration: Success was noted in funding calls that required collaboration with different stakeholders, specified global South leadership, and mandated an NGO/practitioner partner.
- Cross-pollination of ideas: Participants emphasised the need for a platform to bring together diverse stakeholders to share and exchange ideas.
- Long-term engagement with communities: Examples of projects that established structured, long-term engagement between governments and civil society, initially funded by donors but later supported by governments.
- University structures for research: Some universities allocate one day a week for researchers to focus on their research, enhancing their capacity to engage in meaningful projects.
- "Purpose with profit" : Need to find the right incentives to motivate private sector investment (e.g. sustainability of supply chains and customer base).

Exploring solutions

Capacity building

- Role players:
  - Universities and HEIs collaborations: Collaboration between universities and Higher Education Institutions (HEIs), such as Makerere, UCT, and institutions in Ghana, plays a crucial role in capacity building. Examples include graduate programmes on climate change.
  - Government: Governments are involved in capacity building through programs like internships, for instance, in Malawi.
  - Communities/community leaders: Capacity building may involve faith structures and existing community structures. Co-creation spaces, as seen in the Zambia example, can also facilitate this.
  - Regional organisations: Regional organisations like LUCCC, ARVA, SARUA, and initiatives like UNI-LEAD contribute to capacity building efforts.
  - Civil society organizations/NGOs: Organisations like CDKN and knowledge brokering courses play a role in capacity building.
- Different scales and local challenges: Capacity building should address both local and broader challenges, connecting implications at higher levels to local issues.
- Apprenticeship programmes: Some capacity-building initiatives involve apprenticeship programmes with a six-month classroom component and a six-month placement. For example, the Zanzibar tourism programme is an example of this approach.
- Examples to build on: UNI-LEAD, which involves 20 universities across Africa and Asia, serves as a foundation for capacity-building efforts.
- Purpose: Capacity building focuses on developing process skills, including bringing different types of knowledge together, co-creation, action-oriented research, science communication, and negotiation skills.
- "For whom": The beneficiaries of capacity building include students, researchers, communities, and human resources.
- Improvements:
  - Enhancements in capacity building can be achieved by utilising local capacity to train others instead of relying on external expertise.
  - A combination of in-person and online engagements is more effective than online training alone.
  - Implementing a "learn-implement-learn-implement" approach and providing pitstops of support and mentoring can improve capacity-building efforts

Multistakeholder platform

Roleplayers and purpose

- Roleplayers: Multistakeholder platforms involve various stakeholders, including government agencies, development agencies, research organisations, and civil society.

- Government mandate: Government often plays a central role, given its long-term mandate for climate change adaptation.
- Political will: In some cases, especially in LDCs, strong political will is needed, and support may be required to build and empower the government agencies.
- Agency structure: These platforms can be structured as commissions or councils, operating semi-autonomously and sometimes receiving grants or funding from development agencies.
- SWOT analysis: It's essential to consider the strengths, weaknesses, opportunities, and threats related to different members of the platform, as the realities may vary.

Existing structures

- Contextual variations: Most contexts already have some form of multistakeholder arrangement. The lead and functioning of the platform often depend on the government's regime.
- Coordination: In multi-country scenarios, coordination may be led by development agencies to ensure sustainability rather than relying solely on government support.
- Cascading: The approach for cascading adaptation actions to subnational levels varies and should be determined based on each country's specific circumstances.
- Data repositories: Data repositories are critical for the platform's functioning. While the United Nations Framework Convention on Climate Change (UNFCCC) theoretically serves this role, data access can be hindered by costs and barriers, as researchers often charge for data access.
- Community of Practice (CoP): Building trust and collaboration within a CoP can enhance the platform's sustainability.

Funding and challenges

- Collaborative funding: Collaboration on funding opportunities with other organisations can help secure resources for platform activities.
- High-level platform: Community involvement in high-level platforms is crucial, but the role of NGO representatives can be contested, and development agencies have their own goals.
- LDC expert group: Entities like the LDC Expert Group under the UNFCCC can play a role in guiding and supporting these platforms.
- Action-oriented secretariat: Establishing an action-oriented secretariat is important, and a sustainable funding model is needed to ensure the platform's long-term viability.

Data repository

- The data repository should encompass both high-level data, which already exists, and granular or snapshot data produced at the local level.
- Data should ideally be open source, but there's a concern about data usage, which suggests a need for some form of data access request or "gatekeeping" mechanism to mitigate risks.
- Artificial Intelligence (AI) could play an integral role in populating and

maintaining live data.

- Data production at the local level should be organised within a structured framework to ensure accessibility.
- Universities, the Intergovernmental Panel on Climate Change (IPCC), or Communities of Practice (CoPs) should serve as bridges or brokers for accessing, requesting, and making sense of data, essentially providing a "value-added service."
- Consider exploring business models from other sectors that can be adapted for climate-based services.
- Emphasise the importance of not just data but also the need for open-source and visible stories that are accessible and representative of real experiences, making data more relatable and actionable.

Transdisciplinary centres of excellence

Functions of transdisciplinary centres:

- These centres serve various functions, including offering products and services, fostering farming Communities of Practice (CoPs), providing consultancy services, conducting research, and offering fund-to-government services. The goal is to meet both supply and demand in the field of climate change adaptation.
- KCAD model and network model: Transdisciplinary centres may follow models such as KCAD and network models.

Participatory anticipatory models:

- These models focus on proactively approaching adaptation efforts to respond to anticipated shocks, involving putting funds in place to reduce the impact of shocks. Local governments, like national disaster management agencies, may lead these efforts.
- Challenges include the need for a stronger country voice and creating effective feedback loops with the community. Approaches involve getting the local perspective on anticipatory actions to reduce impacts, working with multiple stakeholders, and organising recurring and periodic meetings to prepare for probabilities.

Scaling transdisciplinary centres:

- Many universities specialise in different areas of climate change, and bringing them together can strengthen transdisciplinary efforts and support research across the knowledge value chain, addressing both supply and demand.
- Examples of such cross-institutional centres include KLIMOS and the Tyndall Centre. These centres typically involve several university partners and operate as semi-independent entities.
- Semi-independence can lead to a more business-oriented model, with consultancy work, paid short courses, and knowledge services. The governance structure of these centres should ideally include researchers, academics, private sector representatives, NGOs, and community representatives.

- These centres should also focus on efficiency and adopt a "business model" approach, including support units for proposal writing and commercial bids.
- Transdisciplinary centres have a crucial role in communicating science and facilitating the exchange of knowledge between communities and policymakers, creating a feedback loop that bridges the gap between community needs and knowledge requirements.

In exploring how each of these enablers or solution spaces could be operationalised, some common themes emerged:

- The suggested solutions cannot function effectively in isolation – each needs the others for a healthy knowledge system. For example, a repository of data needs communities of practice and platforms to feed the latest research into it, and manage its terms of use. Any future programme therefore needs to address multiple barriers and provide integrated solutions.
- There are so many exciting projects, structures, centres, platforms already in existence that can be learnt from, replicated, connected with and leveraged in LDCs.
- Where possible, solution spaces need to consider a "business model" for their long-term sustainability. For example, some centres may work better if they are semi-independent to circumvent inhibitive university bureaucracy and to ensure independent governance. Examples of activities that could support this include value-added services and short courses that can generate income. Similarly, any structure that has voluntary participation needs to think carefully about the incentives for sustained membership.
- Communication and knowledge translation must be beyond data and information, but include creative visuals and stories to reach a wider audience, especially at community levels.
- The governance structures of these solutions needs to be context-sensitive – there is no one-size-fits all. For example, in some countries it may make sense for government to lead an activity, but in other countries civil society is more trusted and reliable.
- No matter the solution, it needs to consider cascading scales in its structure, so that it is always connected to community level and constantly feeds information and lessons up to the national and global level and back down.

Identifying case studies (illustrative examples) of solutions

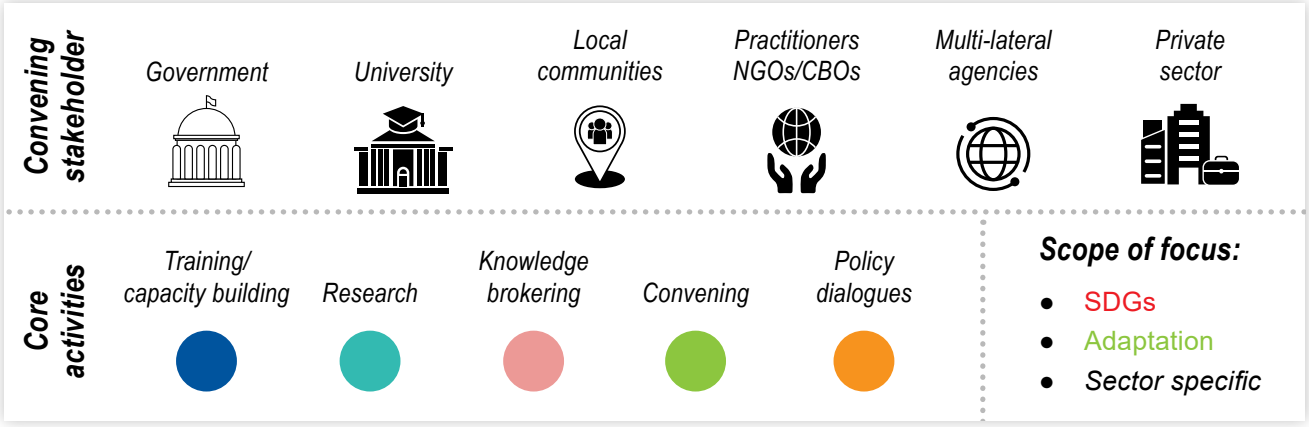
Process

The search and review of potential illustrative examples and case studies for the range of solutions identified through the co-creation engagements drew on three main sources of information. Firstly, examples mentioned by participants during our co-creation workshops, especially the event following the Resilience Evidence Forum in Cape Town, where this was a focal area of conversation. Secondly, examples identified through conference sessions, ARA partners, other contacts, and the Interfer team; and thirdly those revealed through Google searches using search terms such as “multistakeholder platforms for climate change adaptation”; “bridging the science-policy-practice gap”; “evidence-based policy making”; and “evidence-informed decision-making” amongst others.

The examples we considered are all, except for a couple of exceptions, from the Global South and are mainly found at national, regional, continental, and across LDCs scales. Local scale examples tend to be primarily programme or project-linked (multistakeholder transdisciplinary research projects, advisory boards) or linked to individual institutions. Examples include inter- or transdisciplinary research chairs in SDG and climate related themes (for example, the OR Thambo Research Chair on “Understanding ecosystem services and local organisations in reduction of climate change vulnerability in arid and semiarid zones” at Eduardo Mondlane University in Mozambique) and various curricula, at both undergraduate and postgraduate levels, designed to address the theme of engaged, action-orientated, transdisciplinary research.

In the table 1, on the following pages, we categorised the examples we found using the solutions categories emerging from the co-creation process, the scale at which each operates, the coordinating/leading sectoral actor, and thematic focus. More details for these examples are summarised and presented in Appendix 1. Examples that we believed to be particularly relevant and useful are presented in case study boxes.

SCALE	SOLUTION TYPE			
	Multistakeholder platforms & networks	**Transdisciplinary centres**	**Transdisciplinary programmes**	**Knowledge portal**
Local			OR Tambo Chair at Universidade Eduardo Mondlane, Mozambique  *AFRICA*	
National	South African Presidential Climate Commission (SAPCC)  *AFRICA*	International Centre for Climate Change and Development (ICCCAD)  *ASIA*		
	Policy Action for Climate Change Adaptation (PACCA)  *AFRICA*			
	National Support Office of the African Union Champion of Disaster Risk Management  *AFRICA*			



SCALE	SOLUTION TYPE			
	Multistakeholder platforms & networks	**Transdisciplinary centres**	**Transdisciplinary programmes**	**Knowledge portal**
Regional	Horn of Africa Regional Environment Centre and Network (HoA-REC)  *AFRICA*		Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA)  *AFRICA*	
	Himalayan University Consortium (HUC)  *ASIA*			
	Sahel Universities Network for Resilience  *AFRICA*			
	Mekong River Commission  *ASIA*			
		International Centre for Integrated Mountain Development (ICIMOD)  *ASIA*		

Convening stakeholder

Government *University* *Local communities* *Practitioners NGOs/CBOs* *Multi-lateral agencies* *Private sector*

Core activities

Training/ capacity building *Research* *Knowledge brokering* *Convening* *Policy dialogues*

Scope of focus:

- SDGs
- Adaptation
- *Sector specific*

SCALE	SOLUTION TYPE: Multistakeholder platforms & networks	Transdisciplinary centres	Transdisciplinary programmes	Knowledge portal
Continental	African Research Universities Alliance (ARUA) — AFRICA	The African Institute for Development Policy (AFIDEP) — AFRICA	Leading Integrated Research for Agenda 2030 in Africa (LIRA) — AFRICA	
	Livelihood Assets & Resilience Academy (LARA) — AFRICA	AKADEMIYA 2063 — AFRICA	Science Granting Councils Initiative in sub-Saharan Africa (SGCI) — AFRICA	
	Africa Evidence Network — AFRICA			Africa Evidence Network Learning Space — AFRICA
	Africa Research and Impact Network — AFRICA			Africa Research and Impact Network — AFRICA

Convening stakeholder: Government; University; Local communities; Practitioners NGOs/CBOs; Multi-lateral agencies; Private sector

Core activities: Training/ capacity building; Research; Knowledge brokering; Convening; Policy dialogues

Scope of focus:
- SDGs
- Adaptation
- Sector specific

SCALE	SOLUTION TYPE			
	Multistakeholder platforms & networks	**Transdisciplinary centres**	**Transdisciplinary programmes**	**Knowledge portal**
LDC-wide	Least Developed Countries Universities Consortium on Climate Change (LUCCC)		LDC Initiative for Effective Adaptation and Resilience (LIFE-AR)	
	Least Developed Countries Expert Group (LEG)			
Global				WeAdapt
	Transforming Evidence Network			
	Transforming Evidence Funders Network			

Convening stakeholder

Government | *University* | *Local communities* | *Practitioners NGOs/CBOs* | *Multi-lateral agencies* | *Private sector*

Core activities

Training/ capacity building | *Research* | *Knowledge brokering* | *Convening* | *Policy dialogues*

Scope of focus:

- SDGs
- Adaptation
- *Sector specific*

Outcomes

There is a surprising amount happening in the science-policy-practice space and in supporting evidence-based policy and decision-making across the continents and regions within which LDC countries sit. The many existing projects, structures, centres, networks and platforms, from local to global scales, provide excellent examples to learn from, replicate, connect to or leverage. We believe it is important to minimise duplication of effort and to learn from success in developing options for a new action-orientated research programme on climate change adaptation. However, that said, there are a limited number of LDC-specific examples.

We found several examples of multistakeholder platforms (MSPs) and networks across Africa and Asia that relate well to the scope of our co-creation process, although only three are LDC focussed. Some of these examples are hosted by "physical" institutions or centres as described below. These platforms/networks operate across scales from subnational to national level and across LDCs.

These can be clustered under four main groupings:

1. Government-based or led networks, for example the LDC Expert Group, LIFE-AR, and South African Presidential Commission on Climate Change.
2. Platforms and networks composed of mainly government and multilateral organisations, for example the Africa Research and Impact Network (ARIN) and ICIMOD.
3. University-led or -focussed networks, for example the African Research Universities. Alliance (ARUA), Himalayan University Consortium (HUC), Least Developed Countries Universities Consortium on Climate Change (LUCCC), Livelihood Assets & Resilience Academy, Africa (LARA), and the Network of Sahel Universities.
4. Project- or programme-related networks/MSPs, for example Policy Action for Climate Change Adaptation (PACCA), and the CGIAR-led Accelerating the Impacts of Climate research for Africa (AICCRA).

Several of these MSPs/networks play a strong role in knowledge brokering, with evidence informed decision-making support emphasised as a key goal (e.g., The African Institute for Development Policy (AFIDEP), African Evidence Network (AEN), Africa Research and Impact Network (ARIN)). While many are focused on or led by one type of actor in the science-policy-practice space, most have the ambition to support engagement and collaboration across all the actors in this space, even if these actors are not included as 'formal' partners in the networks/MSPs.

Several of the networks/MSPs are hosted by independent entities (institutions, organisations, or centres) that aim to support action related research and/or evidence informed decision and policy making. These entities act as the coordinating nodes for their associated multistakeholder engagement platforms or networks (for example, ICIMOD for the Himalayan Universities Network; International Centre for Climate Change and Development (ICCCAD) for LUCCC; The African Institute for Development Policy (AFIDEP) for a Community of Practice in Africa for evidence informed decision-making).

At the same time, these entities also support several other types of mechanisms and activities that were identified by participants in our co-creation process as possible solutions for shifting the adaptation knowledge system towards more action-orientated research to inform policy and practice. These include, for example, training for evidence-informed decision-making; transdisciplinary and stakeholder engagement training; action-orientated, engaged transdisciplinary research; policy dialogues and other knowledge sharing events; advocacy; popular science communication; and providing access to crucial information for policy, decision-making, and implementation through portals and data repositories. Examples of the latter include access to publications, data, and info briefs. Only three of the identified initiatives had live data repositories.

Box 2 below is an example of a centre/ organisations that we felt provided an exemplary case for informing our programme. There are several other such centres briefly explained in Appendix 1.

BOX 2 The African Institute for Development Policy (AFIDEP)

The African Institute for Development Policy (AFIDEP), established in 2010, is an African-led, regional non-profit research policy institute established in 2010 to help bridge the gaps between research, policy and practice in development efforts in Africa. Registered as a non-profit institution in the USA (with 501(c)3 status) and as a Non-Governmental Organisation (NGO) in both Kenya and Malawi, the Institute works across Africa (has 14 projects across 20 African countries). They seek to contribute to the realisation of the SDGs and other development strategies by enabling the formulation of effective development policies and programme interventions. The institute works across 6 priority areas: population dynamics, health and well-being, transformative education and skills, gender equality and equity; governance and accountability, and environment and climate change. Re the latter, this priority is linked to SDGs 6, 12, 13, and 15. The focus is on assessing the readiness of African countries to deal with vulnerability to the combined effects of rapid population growth and climate change.
Much of their work which includes convening dialogues, presenting at policy events, science communication, policy influencing engagements, coordinating projects, and training has a strong health theme. Their role seems to be strongly that of knowledge broker as below.

Approach and focus:

Synthesis and translation of evidence. *Systematic reviews, rapid synthesis of evidence, review policy documents, identify opportunities where evidence can be used to improve the quality and reach of public services.*

Research. *Addresses or anticipates specific policy questions, secondary analysis of data on the SDGs to understand patterns, contribute evidence to discourses on topical issues through research publications, discussion papers, and conference presentations.*

Providing technical assistance *to local, national, and regional government, support governments to conduct policy reviews, analyses of existing survey, census, and administrative data, scenario building and forecasting.*

Bringing evidence directly to decision-makers *in clear, usable formats.*

Connecting researchers and end-users. *Identify evidence gaps to communicate to researchers.*

Building EIDM expertise across the continent. *Train policymakers to strengthen their leadership and skills for EIDM, strengthen the capacity and skills of researchers and knowledge translators in effective engagement with policymakers.*

Partnerships. *Partner with diverse stakeholders, including other knowledge experts, researchers, development partners, CSOs, NGOs, ecumenical bodies/FBOs, the private sector and the media.*

Strengthening the African voice in global development discourses.

Action areas:

Action 1.1 Institutional capacity development for EIDM in African countries
Action 1.2 Empower individual African policymakers, CSOs and non-state actors on EIDM
Action 1.3 Develop the capacity of African and global researchers
Action 1.4 Build a vibrant Community of Practice (CoP) in Africa for EIDM
http://www.afidep.org/resources/trainings/evidence-informed-policy-making-training-curriculum/
https://www.afidep.org/about/who-we-are/our-story/

Other examples included specific programmes that focussed on some of the solutions identified (often more at the activity or practices level). For example, the LIRA programme is an impressive example of a programme to support engaged, transdisciplinary research in Africa. An explicit aim of this programme was to work closely with key stakeholders and decision-makers, specifically within African cities.
At more local level, one of our participants from Mozambique shared an example of a transdisciplinary Chair in "Understanding ecosystem services and local organisations in reduction of climate change vulnerability in arid and semiarid zones" funded by the South African National Research Foundation and Mozambique National Research Fund. The advisory board for this Chair is representative of multiple important stakeholders including government and community. The researchers are addressing locally relevant challenges and working closely with different stakeholders and communities using transdisciplinary research approaches.

BOX 3 OR Tambo Research Chain in Ecosystem-based Adaptation in Arid and Semi-Arid Zones

The focus for the initial five years of the Research Chair is to understand ecosystem services and local organisations in reduction of climate change vulnerability in arid and semiarid zones in the Limpopo Corridor (LC), Mozambique. The objective is to explore the potential of Ecosystem-based Adaptation (EbA) strategies to reduce vulnerability at local community level in semiarid regions. The ultimate motivation of the research is ***to assist local and national policies that can improve decision-making processes toward resilient communities living in drought-prone regions.*** *The novelty of the work is the integrated approach to socio-ecological processes enabling or limiting climate change adaptation (CCA) options at the level of local community action.*

Four work packages (WPs) are suggested to address the problem, with focus on interactions between natural (climate and ecosystem interactions: WP1) and social (human systems in formal and informal institutions: WP2), resource use patterns for the provision of ecosystem services (WP3), and the integration of the social and ecological systems including the technologies used to obtain the provision of ecosystem services (WP4).

For the management and communication purposes, the Research Chair established an ***advisory committee*** *composed of UEM officials, including the Chairholder and the project manager, a representative of researchers, a representative of students, the representative of FNI, a representative of national academic partner institutions, a representative of international academic partners and the representatives of the national and district governments. The advisory committee is chaired by UEM Academic Vice Rector. The UEM Communication office assists with all public communication. The main purpose of the committee is to provide linkages between the Research Chair and society and ensure that the research focus remains relevant to the participating communities.*

Capacity building is needed across multiple sectors and levels to drive the changes needed, and we found various examples of training and learning activities mostly embedded in the entities and MSPs/networks outlined above. The new LARA programme for LDCs is an interesting example of a capacity-building programme that aims to work across formal education (university curricula and courses) and informal training (trainer-the-trainer programmes, field bootcamps). Regarding training of government decision makers on the use of research evidence, AFIDEP runs regular courses. Promoting different types of learning opportunities is an objective of most of the initiatives already described and this may include workshops, dialogues, and regular webinars. The new Climate Adaptation Learning Activity (CALA) is a new two-year USAID programme that specifically sets out to facilitate learning to improve the quality and effectiveness of climate change adaptation efforts.

In addition to the illustrative examples, we found a policy brief by the International Science Council on “Closing the gap between science and practice at local levels to accelerate disaster risk reduction” that had several parallels to what we are trying to achieve and some excellent advice on what is needed to shift the knowledge system. This is captured in Box 4 on the following page. The authors’

argument is that despite an increased recognition of the importance of research in supporting strategies for DRM at the local level, there continues to be significant gaps in the co-design and application of research for action. This is not only due to poor uptake of science but also inadequate engagement between all the key actors involved. In addition to the advice summarised in Box 4, many of the issues identified in the policy brief mirror the barriers that emerged from our process reinforcing the importance of addressing these.

BOX 4 Key Policy Recommendations from the Brief

Closing the gap between science and practice at local levels to accelerate disaster risk reduction (DDR)

1. *Local authorities in cooperation with science institutions should establish multi-stakeholder knowledge-sharing platforms to enable local stakeholders to access and benefit from existing scientific knowledge, data and technological innovations.*
2. *To empower local government leaders and enhance their capacity to implement Disaster Risk Reduction (DRR), the interface between science, policy and practice must be strengthened.*
3. *Local authorities and scientific communities should foster the development of knowledge brokerage and evidence synthesis to identify the knowledge fit for particular localities, in order to support implementation and help in the co-producing of knowledge along with decision-makers and communities.*
4. *Universities and research institutions should incentivise students and scientists by offering training opportunities to develop skills to support the co-production and implementation of context specific solutions, strategies and policies that support DRR.*
5. *Mechanisms should be established at national, regional, and international levels to create the enabling environment to allow scientists (early career) to play a central role in co-creating and sharing knowledge.*
6. *Local governments ad funders, as well as research institutions, should be more proactive about developing funding streams or assigning existing funding towards the aforementioned recommendations. By doing so they can ensure that existing DRR resources and incentives are aligned in new ways, including engaging the youth or incentivising scientists to connect with local practitioners and stakeholders, and creating new local DRR functions and mechanisms for more effective transfer and utilisation of existing evidence (facilitators).*

In-country engagements

Process

The motivation for the in-country, locally hosted engagements was primarily to bring more government voices into the co-creation process. During our emerging process, it was recommended by participants that we were more likely to attract government stakeholders to face-to-face engagements in their own countries rather than into an online space. Given this, we initiated a process in which existing contacts at LDC universities were invited to submit proposals to host in-country engagements in LDCs, with a budget for running engagement plus Honorariums to account for each hosts' time.

We specified these objectives to explore with high level stakeholders in the engagements:

- what new adaptation policies, strategies and implementation programmes are planned in the country,
- how these could be more effective if supported by locally-led research or how could locally-led research contribute to these new policies and programmes, and
- do high-level stakeholders have the time and capacity to be involved in bringing local adaptation research into policy or practice.

We provided resources such as questions for discussion, a suggested workshop agenda, a pre-recorded introduction to the co-creation process, and a report template. For the discussions, we asked the facilitating team to focus on the solution space and to seek opinions on those that had already been mentioned as well as looking for new contributions.

The discussion questions suggested were:

1. What new adaptation policies, strategies or implementation programmes are being developed in your department or organisation? What role do you as an individual play in the development of these new adaptation policies or programmes?
2. What engagements or partnerships with local universities, researchers or other local knowledge holders have been made as part of your new policy or programme?
3. How could researchers and local universities better support your work, policies and programmes?
4. Do you see value in taking part in an action-oriented research programme for LDCs, either individually, or with your department/organisation?
5. Do you have the capacity to play a role in getting local adaptation research to influence or inform policy or practice?
6. In particular, are you interested in any (can be multiple) of these solutions:
    - Multisector capacity building
    - A transdisciplinary Centre of Excellence
    - A data repository
    - A multisectoral advisory platform
    - Participating in a climate change research advisory committee at university level or a project specific committee

- Participating in research proposal development and cosupervising students

7. Do you have examples or ideas for other innovative solutions in getting local research into adaptation efforts?

Outcomes

Workshop attendance varied across countries, but all managed to attract high-level stakeholders from government and large multilateral organisations, as well as additional staff from their universities. The numbers are as follows:

- Bangladesh – 14 people
- Ethiopia – 9 people
- Liberia – 19 people
- Mozambique – 40 people
- Haiti – 35 people

Overall these workshops were considered successful and, for some, new links and plans to continue to collaborate were made amongst those that attended. For the most part the deliberations during the workshops reinforced much of what had already emerged from the co-creation process, although some new insights and examples of solutions were obtained. We have summarised these below. The individual reports are available in appendices 56–67.

Across the reports we saw:

- Strong endorsement of the need for research to inform adaptation policy and practice by all actors at the workshops and recognition that actors across the knowledge system need to work together to solve their country's adaptation challenges. (It was mentioned that knowledge development needs to move away from the typical academic research to that which responds better to climate action needs at national and local level.)
- An emphasis on the value of research and locally generated knowledge not just for policy making, but also for the implementation of NAPs and NDC actions (some of the latter include undertaking research where there are knowledge gaps), local level adaptation plans and specific strategies, and for supporting monitoring and evaluation of this implementation.
- The acknowledgement that local research and researchers are best placed to provide context-specific knowledge, and to work with and learn from communities regarding their adaptation needs and priorities. Researchers thus can be a conduit for the transfer of information from the ground up into policy processes. Such knowledge is critical for effective and equitable implementation of adaptation policies. Several teams mentioned how a focus on Locally-Led Adaptation (LLA) research could support policies that really make a difference on the ground and that the need for more connection between policy and the realities on the ground is greatly needed.
- In all the processes the was identification of many opportunities and roles for researchers to engage with policy and planning processes

across government departments (especially where effort is being made to integrate climate change in different ways).

- There was strong recognition of the role of universities in training and capacity building of all actors in the adaptation knowledge system – much capacity is needed across actors to make the ambitions of action-orientated research effective.
- The point was made that having something purposeful for actors to orientate around is important. Some examples mentioned included LLA, disaster risk reduction, local adaptation plans, Blue Economy, urbanisation, carbon markets, adaptation for the forestry sector and NDC and NAP implementation.
- The need for a repository for data and information at country level was reiterated, which would need to include capacity building in data management. In relation to this, it was mentioned that all country policies relevant to climate change need to be housed in one place so that they can be easily accessed. Poor access to policies prevented the development of relevant research.

From a more government-specific angle it was recognised that:

- Government actors can play an important role by broadening some of their existing multi-sectoral teams, task forces, platforms to include researchers and other stakeholders. From examples provided, it appeared that cross sectoral, government initiatives (think tanks, focal reps for global funds, forums, academies of science, water/forest authorities, Environmental Protection Agencies) seem to provide better opportunity for research collaboration than individual departments/ministries (with the exception of those specifically addressing climate change). Some countries had existing platforms that should be supported.
- Engagement and research needs to be built into government policies, plans and strategies to create the incentive and budget to multistakeholder collaboration and evidence based policy and decision-making.
- Memorandums of understanding (MOUs) (e.g. between government agencies and universities) were mentioned as important to formalise engagement /collaboration and to ensure commitment at a high level.

Online workshop

Process

On 18 September we hosted an online workshop. The online workshop had the dual purpose of sharing findings from the co-creation process so far, with emphasis on feeding back from the in-country engagements to the different country teams, and on further exploring implementation options for different solution spaces:

- TD Centres of Excellence
- TD Projects
- Knowledge platforms

The workshop was promoted to participants of the in-country engagements, and a general invitation to the workshop was circulated to all those who had participated in the co-creation process so far. In total around 25–30 people attended (though not everyone was able to stay for the full duration).

We presented a framework demonstrating the range of formats that these solution spaces could be structured, and used the framework to answer these questions:

- What should this structure focus on, and why? (e.g. SDGs broadly, adaptation, or a narrow sector or theme?)
- What scale should it operate at, and why? (e.g. Global LDCs, Continental, Regional, National or Local)
- Who should the main stakeholder be, and why? Who should lead and fund it? How can we include those under-represented? (e.g. University, Government, Civil Society or Multilateral organisations)
- If you have time, what activities should this structure focus on, and why?

Outcomes

Transdisciplinary Centres of Excellence

Structure and Focus: The proposed transdisciplinary Centre of Excellence could take on various forms, such as a series of university-level research chairs, a collaborative transdisciplinary research programme at a national or cross-regional level among LDCs, or an implementation programme with a research focus. These structures aim to facilitate monitoring and evaluation, local contextual understanding, and the identification of community priorities. Examples were provided for each option.

Focus of the structure: The discussion centred on the appropriate focus for this structure. It was generally agreed that the structure should primarily focus on adaptation, as isolating adaptation from development is impractical, and adaptation is integral to sustainable development. However, recognising that adaptation often necessitates linking climate change to other SDGs, some participants indicated that the program might need to address multiple themes or streams.

Key focus areas: Areas highly vulnerable to climate change in LDCs, such as coastal regions and arid zones prone to drought.

Geographically-defined regions with shared vulnerabilities that transcend national borders, for example mountainous regions, river basins, and transboundary areas like the Himalayas and Mekong River.

Identification of locally defined needs and priorities, with culture and Indigenous Local Knowledge (ILK) taken into account.

Thematic areas including Locally-Led Adaptation (LLA), Disaster Risk Reduction (DRR), Loss and Damage, landscape management, and extreme events.

The discussion highlighted that the specific focus should be tailored to the unique circumstances of each country or region. Thus, the determination of focus areas should be a collaborative process, involving co-development as part of the programme.

Stakeholders: The discussion also delved into the crucial question of stakeholders in this initiative. For research chairs, Academies of Science and National Research Funders were suggested as potential stakeholders who could establish a special call for Climate Change Adaptation chairs. For research programmes, the design should be intentionally multistakeholder, involving universities, research organisations, government bodies, NGOs, and multilateral organisations. This collaborative approach ensures that the programme aligns with both national priorities and local needs.

TD projects

Stakeholder involvement: The discussion emphasised the importance of involving a wide range of stakeholders interested in climate change and adaptation. In particular, there was a focus on the inclusion of anthropologists and sociologists, as their expertise in understanding community behaviours and gathering quality information from communities is vital for the success of transdisciplinary projects.

National level operation: The consensus was that these projects should operate at a national level, with the possibility of in-country regional representation to ensure a comprehensive approach.

Leadership: Universities were suggested as potential leaders of these transdisciplinary projects. However, it was acknowledged that government should also play an active role in understanding community needs and perspectives.

Collaboration: The success of the projects relies on effective collaboration between various stakeholders, with an emphasis on understanding the needs and perspectives of communities affected by climate change.

Limited time: The presenter noted that time was running out and provided a brief summary of the discussion points, highlighting the role of universities in leading transdisciplinary projects.

Knowledge platforms:

- Focus of the repository: The participants discussed the focus of the repository, whether it should be broad, such as covering the Sustainable Development Goals (SDGs) as a whole, or more specific, focusing on adaptation or even narrower sub-themes or sectors.
- Local-level data: The importance of local-level data and the need for locally-led adaptation efforts were highlighted. This includes using data to support adaptation in rural areas.
- National vs. local scale: The participants debated the appropriate scale of operation for the repository, including whether it should be at the national or local level. It was mentioned that national-level platforms should support and collaborate with local-level efforts.
- Stakeholders and leadership: There was discussion about who should lead, fund, and own the repository. Multilateral organisations, universities, and government

institutions were suggested as potential stakeholders, each with their roles and responsibilities. The importance of having a platform that can outlast changes in government leadership was emphasised.

- Inclusion of underrepresented groups: Participants stressed the need to ensure that underrepresented groups, especially at the local level, have a voice and are included in the repository's development and utilisation. Collaboration between universities, governments, and local communities was seen as a way to address this.
- Transparency and accountability: Transparency and accountability in the use of data and funds were discussed, with an emphasis on the role of universities in providing scientific input and checks and balances for government initiatives.
- Long-term sustainability: Questions were raised about the repository's sustainability beyond the 2030 target of the SDGs, with a focus on climate adaptation and the evolving needs of different communities.
- University involvement: The idea that universities can play a key role in managing the repository, ensuring continuity, and facilitating collaboration with government institutions was proposed.

Adaptation Futures

Process

A session was convened on 3 October 2023 (the first day of the conference) to share findings from the co-creation process and to gather further input. After a short presentation, participants broke into four groups and discussed the following questions:

1. Thinking about developing solutions that connect structures and across scales, focus areas, and stakeholders, imagine that you were designing this programme. What do you think is missing in this ecosystem of solutions? What is ONE way to create linkages between structures that you would prioritise, given potentially limited funding?
2. Thinking about the priority solutions you have identified. How would you make this work? What kind of funding and support could facilitate this solution? Draw what this might look like.

ARA staff assisted with the group facilitation.

We also attended relevant sessions and had conversations with people whom we felt could inform our process and reflect on our findings, including funders, knowledge brokers and other LDC researchers.

Outcomes

Session and workshop

The session was attended by 23 participants from both LDC and non-LDC countries.

The four groups held relatively open and participative discussions, but that did not really focus on the questions posed. Rather, the conversation reinforced much of what we have heard to date. Several barriers that we had found in earlier processes were mentioned, as were solutions. Some new points and ideas were also raised. A common theme across the groups included funding related issues and length of programmes.

The main points raised by each group are summarised below.

Group 1: This group spent most of the time discussing funding. Some of the main issues raised included the need for flexibility in funding, ongoing support to scale-up, dedicated funding for creative engagement over the life of the project and to maintain relationships, incentives for researchers, capacity building for funding (facilitated by funders themselves) and decolonisation of the funding model.

Group 2: Group 2 raised several diverse issues such as how to link researchers with government timelines and political processes, the need to learn the language of policy makers, less competition and more coordination in funding across institutions, more focus on empowering the youth, creation of safe engagement platforms, and the necessity for defining adaptation niche areas with different stakeholders. An interesting point raised was – what is the future role of global north researchers.

Group 3: Group 3 also covered a broad area. Like the other groups, they also mentioned issues of limited funding and too short funding cycles, and the need for donors to find ways to specifically support locally based researchers and initiatives. This was, in turn, linked to the point that there needs to be more explicit national policies that ensure research is locally led. One new solution mentioned that relates to the idea of Transdisciplinary Centres is that of Locally-led Labs or Living Labs that are not necessarily hosted by universities and that operate at a level that facilitates direct collaboration with communities.

Group 4: Group 4 had an even more dispersed conversation. Particularly interesting was the discussion around knowledge or data portals. They felt that there is a lot of “portal fatigue” amongst funders. The group believed that the issue is more about a lack of understanding and knowledge around how to access data and information rather than it not being there. What is required is training and facilitated access (see below re OSCE Aarhus Centres) to the information needed. Other points related to the short timeframe of funding and the need for endowments for the type of programme this co-creation process is envisaging rather than once-off projects. They also made the point that there needs to be more national and less multilateral funding. The important role of national research agencies was mentioned as well as the need for alliances between LDCs.

General

Interesting and relevant information from other conference sessions and from meetings with researchers and funders are outlined below.

Future Earth Australia: At Adaptation Futures, we encountered the example of Future Earth Australia, a membership network of universities and research institutions working collaboratively on sustainability challenges coordinated by someone who saw herself as a knowledge broker. The network convenes its members with policymakers, community members and the private sector to bring together key players, enable collaboration and foster alignment with a focus on the SDGs and government research needs. Based at the Australian Academy of Sciences (which lends legitimacy and influence to the initiative), the network is governed by a steering committee comprising members and broader community representatives. Although a paid membership model such as used by Future Earth Australia, is unlikely to work in an LDC context, the role that the network plays in connecting and convening different stakeholders for research relevant to policy and practice and for supporting funding raising for research provides a very interesting example to explore in the design of this programme.

Knowledge Brokering: The Climate and Development Knowledge Network (CDKN) hosted a workshop at AF2023 where they defined a “knowledge broker” as “a facilitator of change seeking to strengthen relationships, networks and understanding on the climate challenge, based on diverse types of knowledge and experience, to advance more evidence-based, inclusive and innovative decision-making and climate action”. They used Figure 3 to illustrate the spectrum of activities that knowledge brokering can include from working with information flows to seeking to bring about systemic change.

Workshop participants

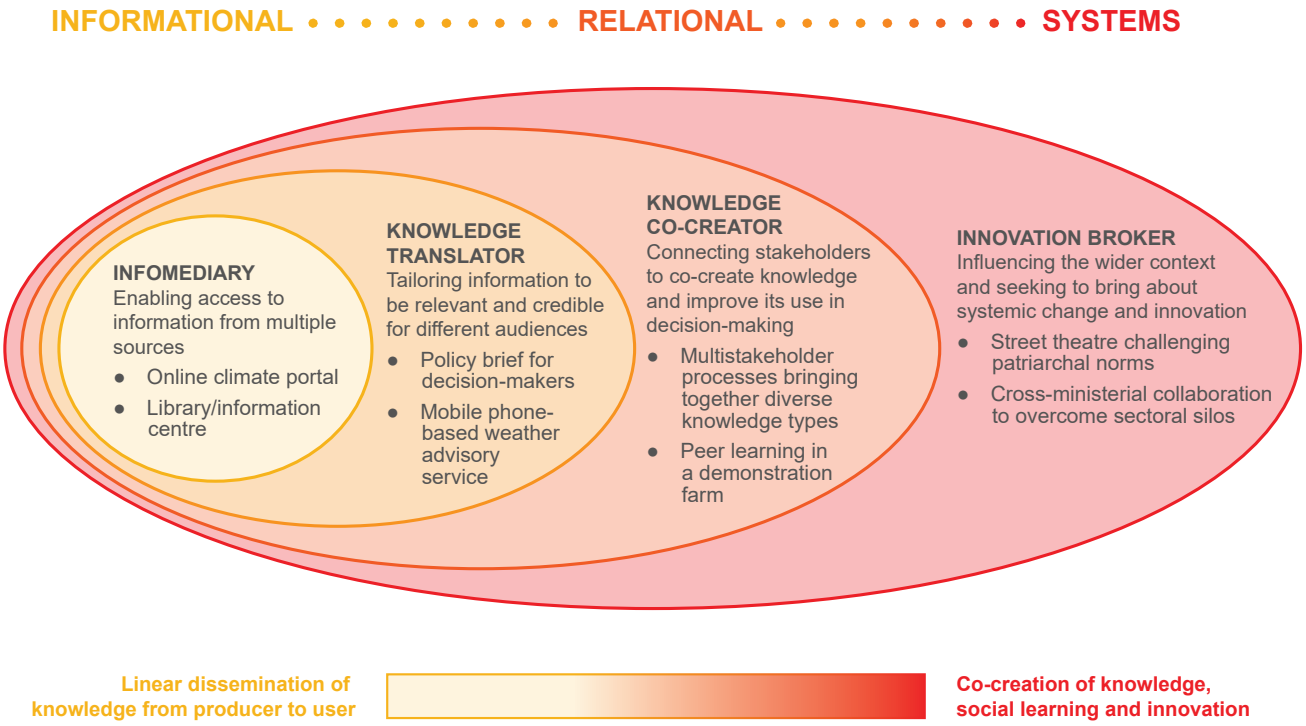


Figure 3: Spectrum of knowledge broker roles, adapted from Harvey et al. (2012) and Shaxson et al. (2012)

Some of the illustrative solution structures that we have identified during this process, play a knowledge brokering role (e.g. African Research and Impact Network and their efforts to convene evidence and impact dialogues, and support contextual knowledge systems and learnings; or the Knowledge Products generated by AKADEMIYA2063). It would be interesting to explore further who currently plays this role, and in what ways, within LDCs, and how these roles could be supported or strengthened through the envisaged programme. The need for dedicated knowledge brokering to bridge the science-policy-practice interface emerged strongly as essential during our interactions at Adaptation Futures.

African Academy of Science (AAS): The AAS is a non-aligned, non-political, not-for-profit pan African organisation whose vision is to see transformed lives on the African continent through science. A meeting was held at Adaptation Futures with the director of the African Academy of Science, Prof Lise Korsten, and with Obed Ogega. We shared the outline of our co-creation process. They expressed interest in any resulting programme as it has similar goals to the AAS. They could also host a programme component at a university level, for example, research chairs or TD research programme.

African Climate Change Fund (ACCF): The ACCF is a multi-donor trust fund well positioned to contribute to the achievement of the African Development Bank (AfDB)'s goal to triple its climate financing efforts and foster its drive for a climate-resilient Africa. The AfDB established the ACCF in April 2014 with an initial contribution of EUR 4.725 million from the Government of Germany to support African countries build their resilience to the negative impacts of climate change and transition to sustainable low-carbon

growth. The ACCF was converted to a multi-donor trust fund in 2017 with contributions from the governments of Flanders, Belgium and Italy. The Global Affairs Canada and the Government of Quebec joined the Fund in 2020 and the Global Center on Adaptation in 2022. The current trust size is USD 25.71 million. In 2022, the Board of Directors of the African Development Bank and the ACCF donors approved an amendment to the scope of the Fund to align with the Bank Trust fund Policy 2021 and support the increased ambition of African countries expressed in the Glasgow Climate Pact and the ongoing negotiations under the Paris Agreement and the Conventions on Biological Diversity and the Combating Desertification. The amendments broaden and strengthen the objectives of the Fund and its beneficiaries. African governments, NGOs, local communities, funds, research institutes and regional institutions, and private companies, can now benefit from the Fund's grants. Since its inception in 2014, the ACCF Governing Committees have approved 26 grant projects for a total of USD 15.89 million. These approved projects are supporting over 26 African countries via local and multinational projects to strengthen their capacities to access international climate finance, Nationally Determined Contributions (NDCs) revisions, Long Term Strategies development, and implementation of small-scale adaptation projects to enhance their resilience to the impacts of climate change.

OSCE Aarhus Centres: The Aarhus Centres provide platforms to engage citizens, governments and the private sector in a dialogue on environmental challenges. Access to information, public participation in environmental decision-making and access to justice in environmental matters are the three pillars of the 1998 Aarhus Convention. They are also the basis for the work of more than 60 Aarhus Centres that are currently operating in 14 countries throughout the OSCE area, i.e. South-Eastern Europe, Eastern Europe, South Caucasus and Central Asia. Rather than creating new data portals, these centres provide facilitated access to data and other information on a demand basis.

Living Labs: The concept of Living Labs was highlighted across several sessions related to agroecology held at AF. A Living Lab is considered as an approach for various groups to work together to co-develop innovations that are more likely to be adopted. It is about being user-centred. The term is also used in relation to bringing together actors to co-develop research for action and impact. Such Labs were mentioned as a potential solution for linking science and society in our session. Canada has a government programme that supports a number of Living Labs across the country that focus on agricultural sustainability that are linked together via a higher level network. The difference between Living Labs and other MSPs is that they include local communities/farmers and the implementation of research findings on site.

RuForum: The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), established by 10 Vice Chancellors in 2004, is a consortium of universities in Africa. December 2022 membership stands at 163 universities in 40 countries. RUFORUM is registered as an International NGO (FORR78950) in Uganda and coordinated by a Secretariat hosted at Makerere University in Kampala. The organisation evolved from its predecessor, the Forum on Agricultural Resource Husbandry (FORUM) program of the Rockefeller Foundation. In July 2014, RUFORUM signed a cooperation agreement with

the African Union to support the implementation of the African Union Science, Technology and Innovation Strategy. The RUFORUM Vision 2030 envisions vibrant, transformative universities catalysing sustainable, inclusive agricultural development to feed and create prosperity for Africa. One of their initiatives is a competency-based agricultural extension curriculum on climate change that provides hands-on support, especially for accessing climate information and using the various tools that are available. It was argued during that presentation at AF that this is what is required rather than more data portals. This provides an example of what a network like LUCCC could become with support.

In country engagement in Haiti

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For more information on the ARA Co-creation Spaces, please visit:
https://www.adaptationresearchalliance.org/resources/ara-co-creation/

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Appendix 1

AEN – Africa Evidence Network

https://africaevidencenetwork.org/en/eidm-in-africa/

The Africa Evidence Network (AEN) is a broad community of over 5000 diverse people who share a vision to see an end to poverty and inequality in Africa. The Network's mission is to work with others to contribute to this vision by increasing the use of evidence in decision-making. The Network is pan-African, open to all who live and work on the continent.

It is unique in its inclusivity and diversity in six broad dimensions. It spans i) all countries in Africa; ii) all sectors across the Sustainable Development Goals; iii) all spheres, including government, academia, civil society and all intermediaries; iv) the full diversity of roles within these spheres from members of parliaments to program managers to researchers; v) all elements of the evidence production and use cycle, from the generation of evidence to its integration into policy and implementation; and vi) all types of evidence from administrative data, to evaluations of all kinds, to experimental research, to citizen experiences and systematic syntheses of primary studies.

Its goals are to foster collaboration among those engaged in or supporting evidence-informed decision-making (EIDM) in Africa, increase knowledge and understanding of EIDM, share capacities across the evidence-informed decision-making ecosystem, improve the enabling context by promoting EIDM in Africa, and advocate for Africa's full voice and participation in the national, regional and global movements to increase EIDM.

AFIDEP – The African Institute for Development Policy

https://www.afidep.org/

The African Institute for Development Policy (AFIDEP), established in 2010, is an African-led, regional non-profit research policy institute established in 2010 to help bridge the gaps between research, policy and practice in development efforts in Africa. Registered as a non-profit institution in the USA (with 501(c)3 status) and as a Non-Governmental Organisation in both Kenya and Malawi, the Institute works across Africa (has 14 projects across 20 African countries). They seek to contribute to the realisation of the SDGs and other development strategies by enabling the formulation of effective development policies and programme interventions. The institute works across 6 priority areas: population dynamics, health and well-being, transformative education and skills, gender equality and equity; governance and accountability, and environment and climate change. The focus is on assessing the readiness of African countries to deal with vulnerability to the combined effects of rapid population growth and climate change.

AICCRA – Accelerating Impacts of CGIAR Climate Research for Africa

https://aiccra.cgiar.org/

AICCRA has six country teams and regional initiatives that work with national and regional partners to transform climate services and scale climate-smart agriculture, increasing access to and use of CGIAR innovations for the benefit of millions of small-scale farmers in Africa.

AICCRA teams focus activities on four research priorities – sharing knowledge, building partnerships, scaling innovation and fostering gender and social inclusion.

Funding: Supported by a grant from the International Development Association (IDA) of the World Bank

This grant is shared among CGIAR research centers that work in Africa, partner institutions based in African countries that receive IDA funding, as well as national or regional organizations in Africa that partner with AICCRA.

AICCRA Learning Zone: one-stop shop for analytical resources – case studies, training guides, articles and videos – that empower farmers, policymakers and communities to make informed decisions in agriculture that work for people, nature and planet. Open-access resources compiled to promote the broader and deeper adoption of climate information services and climate-smart technologies and practices across Africa.

AKADEMIYA2063

https://akademiya2063.org/

AKADEMIYA2063's overall mission is to create, across Africa and led from Rwanda, state-of-the art technical capacities to support the efforts by the Member States of the African Union to achieve the key goals of the Agenda 2063 of transforming national economies to boost growth and prosperity.

AKADEMIYA2063 is a pan-African non-profit research organization with headquarters in Kigali, Rwanda and a regional office in Dakar, Senegal. It was established in January 2020 to host, coordinate and expand the portfolio of policy research and capacity-strengthening support for the implementation of the Comprehensive Africa Agriculture Development Programme (CAADP), which was initiated and previously incubated by the International Food Policy Research Institute (IFPRI).

AKADEMIYA2063 works closely with the AUC, AUDA-NEPAD, regional economic communities, countries, and development partners and continues to collaborate with IFPRI to support the successful implementation of CAADP and the advancement of agricultural transformation and development in Africa.

It is a very large organisation with 8 different departments, and 42 African and international partners. The main funders appear to be: SIDA, IDRC, Bill and Melinda Gate Foundation, and USAID. It also has a large staff of some 20 scientists plus other staff. Each programme has its own website.

Anticipatory Action Protocols, Mozambique

No website

A multistakeholder in-country platform disaster and humanitarian response that is proactive and helps reduce impact of impending hazards and disasters. Includes scientists from Universities, Met services, NGOs (Oxfam, Red Cross), government (planners – national and local) and indirectly communities. The platform has working groups that meet monthly. Starting with early warning systems – Met services published bulletins and meetings discuss and translate these bulletins. The platform is government-led; the National Disaster Management and the Met services act as knowledge providers, and the universities do the drought and flood monitoring. Community voices not directly involved but information/ plans are shared with communities and their feedback obtained – e.g., strengthening houses against cyclones. This example suggests that platforms that work towards specific policy or strategies can work well and can include research as well as practice.

ARIN – Africa Research and Impact Network

https://www.arin-africa.org/

The African Research and Impact Network (ARIN) is an impact platform that brings together a network of scholars and policymakers across Africa. Modeled as a network, ARIN seeks to leverage on the capabilities of talented African scholars in a flexible manner. ARIN's core focus is to engage in peer learning and sharing good transformative research and impact practices. Areas of focus include natural resource management, climate change, agriculture, forestry, energy, water, and cities to leverage their knowledge and experiences in promoting research excellence and impact pathways. ARIN's mission is to promote research excellence and dialogue on best research and impact practices, by providing platforms for science-policy interface in Africa, building on research evidence.

ARIN has vast experience in generating and consolidating evidence on what works or not, focusing on the key strategic sectors or themes within the global research and development agenda. ARIN provides a unique convening platform for the science-policy interface in Africa, building on research evidence. It recognizes that Africa is home to multiple researchers, innovation, and best policy practices, but these remain poorly shared and utilized to inform impactful Research and Development Agenda. ARIN, therefore, provides a peer review platform where best research and impact practices from different African contexts are shared, profiled, and leveraged to inform transformative policy action.

ARIN's thematic focus is tailored towards addressing sectors identified by African countries as key development frontiers. These thematic areas might slightly vary from country to country in terms of prioritization.

ARIN has a data centre that provides access to data published as part of their on-going research project work. Through ARIN's geospatial data repository, it is possible to access spatial data layers, maps published and shared to help in the research process

ARUA – African Research Universities Alliance

https://arua.org.za/wp-content/uploads/ARUA-Strategic-Plan-Launched-May-2022.pdf

ARUA Strategic Plan 2022–2027 – Strategic objective 5: Strategizing Towards Enhanced Research Advocacy

Recognition that a considerable amount of high-quality research continues to be undertaken by Africa-based researchers but the low level of visibility and uptake suggest that their research findings rarely shape national debates nor influence policy decisions. ARUA takes the position that African research is indeed on the rise and needs to be brought to the attention of potential stakeholders. ARUA research priorities aligned with SDGs with the aim of using the research output generated by its Centres of Excellence to begin to influence the narrative among national governments, civil society organisations and the private sector. The Alliance seeks to engage key stakeholders including international foundations, multilateral funding agencies, the African Union and its AUDA, the Science Granting Councils, other inter and intra-regional bodies, and all African governments. The engagement will seek to generate an interest in them for policies and interventions that will strengthen research and its uptake on the continent.

ASCEND – African Synthesis Centre for Climate Change, the Environment and Development

https://ascend.org.za

ASCEND is the first synthesis centre in Africa, and the first synthesis centre globally to focus on climate and development. As a synthesis centre, ASCEND aims to accelerate discoveries for more rapid, equitable, and sustained action on climate change and development for vulnerable people and places. ASCEND provides specialised infrastructure for enabling collaborative teamwork across research, policy, and practice that integrates diverse data and knowledge, and accelerates solutions-oriented research for enhancing action on climate change and development. Through frequent calls, ASCEND hosts teams of researchers, practitioners and policy-makers to come together to share and synthesise multiple forms of data for solution-oriented research.

HoARECN – The Horn of Africa Regional Environment Centre and Network

https://hoarec.org/

The Horn of Africa Regional Environment Centre and Network, Addis Ababa University has been working towards uniting academia and practitioners to promote environmental conservation, natural resource management, while facilitating strengthening and advocating for sustainable development and environmental governance across the Horn of Africa.

Initially, HoA-REC&N-AAU was initiated by the Faculty of Science in 2006. With the funding support of several international development partners mainly the Embassy of the Royal Kingdom of the Netherlands, the Centre and Network have been working to promote cooperation and knowledge exchange between organisations with environmental expertise, including NGO's, CBO's, research institutions and universities from Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan and Sudan.

Currently, the Network consists of more than 40 members, of which Ethiopia has the largest share of about 40 percent.

In 2010, the University Senate established HoA-REC&N-AAU as an autonomous centre governed by a board of trustees chaired by the Vice President for Research and Graduate Program accountable to the President of the University. In the current structure of the University, it is placed under the office of the President.

A yearly General Assembly composed of endogenous Civil Society Organisation's (CSO's, including NGOs and CBO's) and academic and research institutions (ARIs) from the Horn of Africa countries is the governing body of HoAREC& N. And a Regional Council, with two representatives each from member countries, has the authority and mandate to administrate the HoAREN in line with the Network constitution.

HUC – The Himalayan University Consortium

https://www.huc-hkh.org/

The HUC is a collaborative network of universities and academic institutions from the Hindu Kush Himalayan (HKH) region and outside of it working on strengthening research and scholarship on issues from and relevant to the region. It is hosted by ICIMOD. The network aims to:

- *Build dynamic mountain knowledge partnerships between universities and HKH partner organizations to promote research and learning in and about the region.*
- *Facilitate coordination and collaboration amongst educational institutions to develop joint research and knowledge management programmes on contemporary topics.*

- *Strengthen capacity and help regional institutions address some of the shortfalls they may have in terms of capacity and funding.*

The groups provide scientific inputs to communities, policy makers, researchers and professionals through better understanding of the complex mountain processes, tackling challenges, and contributing to Sustainable Mountain Development (SMD) in the HKH. The Steering Committee consists of elected individuals, numbering at least five and not more than eleven, including one representative from each of the eight HKH countries and two representatives from non-HKH members

ICCCAD – International Centre for Climate Change and Development

https://www.icccad.net/

ICCCAD is one of the leading research and capacity building organisations working on climate change and development in Bangladesh. ICCCAD's aim is to develop a world-class institution that is closely related to local experience, knowledge, and research in one of the countries that is most affected by climate change. It is their mission to gain and distribute knowledge on climate change and, specifically, adaptation and thereby helping people to adapt to climate change with a focus on the global south.

Activities include, amongst others, a formal Master progamme; short courses for multiple actors in the adaptation knowledge system; seminars, workshops, coordination of a community of practice known as Least Developed Countries Universities Consortium for Climate Change (LUCCC) and other networks; various transdisciplinary research progammes and projects; knowledge service provision and consultancy work; production of a range of academic and popular knowledge products; and a visiting lecturer programme.

This Centre is seen as an example of what could be developed further in other LDCs.

ICIMOD

https://www.icimod.org/

ICIMOD is an intergovernmental knowledge and learning centre that develops and shares research, information, and innovations to empower people in the eight regional member countries of the HKH – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. It hosts the Himalayan University Consortium. ICIMOD serves the region through information and knowledge generation and sharing to find innovative solutions to critical mountain problems. They bridge science with policies and on-the-ground practices. They provide a regional platform where experts, planners, policy makers, and practitioners can exchange ideas and perspectives towards the achievement of sustainable mountain development. They facilitate knowledge exchange across the region, help customize international knowledge and tailor it to the region's needs, and bring regional issues to the global stage.

LARA – Livelihood Assets & Resilience Academy. African Solutions to Tackle Hunger & Enable Peace

No website

This new World Food Programme (WFP) project will bring together a network of African universities and other partners to spearhead the localization of expert capacities in integrated evidence based and risk-informed resilience-building programme design and implementation. This network will be involved in capacity development, research, evidence, and advocacy.

The Resilience Academy will:

- *develop and offer context-specific training-of-trainers programmes, field bootcamps, coursework, and academic curricula on the design, implementation and scale up quality integrated resilience programmes;*
- *invest in generating evidence through practical, topical graduate and post-graduate action-based research; and*
- *work to disseminate and embed expert capacity within the network's stakeholder partners and institutions to ensure capacity retention and utilization.*

Its two objectives are: to develop strategic, technical and operational capabilities to design and deliver quality and sustainable livelihoods assets and integrated resilience packages, contributing to filling existing institutional capacity gaps that hinder taking resilience efforts to scale; and to strengthen WFP's and national Universities role as key actors and partners in the humanitarian-development-peace nexus agenda.

LEG – Least Developed Countries Expert Group

https://unfccc.int/LEG

The Least Developed Countries Expert Group is mandated to:

- *provide technical guidance and support to the LDCs on the process to formulate and implement national adaptation plans (NAPs), the preparation and implementation of the national adaptation programmes of action (NAPAs) and the implementation of the LDC work programme.*
- *provide technical guidance and advice on accessing funding from the Green Climate Fund (GCF) for the process to formulate and implement NAPs, in collaboration with the GCF secretariat.*
- *engage a wide range organisations in implementing its work programme.*

LIFE-AR – LDC Initiative for Effective Adaptation and Resilience

https://www.iied.org/supporting-ldc-initiative-for-effective-adaptation-resilience-life-ar

LIFE-AR is a least developed countries (LDC) led initiative, which serves as one of the primary vehicles for delivering the LDC 2050 Vision for a climate-resilient future. The initiative aims to support a shift away from 'business-as-usual' approaches to a more effective and ambitious climate response.

LIFE-AR has worked with more than 600 experts from around the world, to learn from, and build on, existing good practice. The project includes a robust review of evidence on effective adaptation and resilience interventions.

As well as informing the 2050 vision, LIFE-AR will also:

- *Inform the development of LDC adaptation plans to 2050*
- *Identify immediate priorities that will further build national institutions, domestic systems and capabilities, and*
- *Further define National Action Plans (NAPs), National Determined Contributions (NDCs) and wider national efforts to build resilience and address poverty.*

LIRA – Leading Integrated Research for Agenda 2030 in Africa

https://council.science/annual-report-2020/lira2030/

The LIRA 2030 Africa programme was the first research funding programme in Africa that sought to build capacity of early career researchers to undertake transdisciplinary research and to foster scientific contributions to the implementation of Agenda 2030 in African cities.

The programme was implemented from 2016–2021 by the International Science Council (ISC) together with its Regional Office for Africa in partnership with the Network of African Academies of Sciences (NASAC) and with the financial support of the Swedish International Development Cooperation Agency (Sida). It was launched to stimulate the new context-specific evidence required for practice and policymaking in sustainable urban development and focused on building the capacity of the next generation of African scientists to work together with local communities, policy, and practice to collaboratively rethink urban futures on the continent.

Some of the achievements of this programme include:

- *New place-based partnerships across different sectors, that have helped anchor SDGs in local contexts, and increased the local ownership of and responsiveness of communities to the global agenda.*
- *A contribution to shifting the political economy of research on African cities from the Global North to Africa.*
- *Generation of knowledge on what it takes to undertake transdisciplinary research in diverse African contexts.*

LIRA has demonstrated the benefits of synergies between different knowledge types in generating new evidence and has shown that transdisciplinary practices are effective vehicles for bridging science-policy divides, facilitating the co-production of knowledge and forging much-needed alternate pathways to urban progress.

A range of other benefits that the transdisciplinary approach to research on sustainable development across African cities has facilitated such as understanding community needs and sharpening the research focus on key societal challenges; fostering learning across disciplines, sectors, institutions and cities; reinforcing the agency of stakeholders; forming strategic and long-standing partnerships with local and national authorities, improving the acceptability of research findings and their potential for impact; making research processes more inclusive; deepening social relations and fostering trust, goodwill and commitment among various groups.

The creation of a community of practice of engaged early career scholars who are well trained and practiced in transdisciplinary approaches, across diverse African contexts.

This first phase of the LIRA programme has provided an innovative programmatic model for supporting transdisciplinary research and pan-African TD collaborations, lessons from which can be useful for future research funding programmes.

LUCCC – The Least Developed Countries (LDCs) Universities Consortium on Climate Change

http://www.luccc.org/

The Least Developed Countries (LDCs) Universities Consortium on Climate Change (LUCCC) is a South-South long-term capacity-building platform comprising 10 universities as founding members from the LDCs. It is hosted by International Centre for Climate Change and Development (ICCCAD). Under this network of universities, faculty members and students share experiences and knowledge on climate change to build capacity through education, training, research and communication. LUCCC aims to capacitate all the 46 LDCs to adapt effectively to the adverse impacts of climate change as well as to explore win-win options for mitigation. It aspires to develop a South-South and South-South-North knowledge sharing and capacity building network, focusing on adaptation. All the universities, research and training institutes in the LDCs will be included over time in the LUCCC network.

LUCCC's objectives are:

- *To foster a South-South collaborative network for promoting education and skills, research capacity and developing multi-dimensional expertise in climate change.*
- *To enhance the capacity of LDC universities through joint research programmes and implement teaching and demand-driven training programs in various climate change issues.*

- *To develop capacity and work with the most vulnerable countries and communities to foster two-way collaborative learning and capacity-building – blending action & scientific research.*
- *To enable LDC universities & affiliated research/training institutes to serve as repositories of knowledge and generators-suppliers of capacity.*
- *To provide policy support to governments in handling climate change impacts, both nationally & internationally.*

LUCCC is a 13-year initiative established on 1st July 2017 and is expected to run until 30th June 2030.

Mekong River Commision

https://www.mrcmekong.org/

The Mekong River Commission supports a basin-wide planning process based on principles of Integrated Water Resources Management (IWRM). They provide a wide array of advisory and technical assistance to help the lower Mekong countries promote sustainability in major areas of development. The MRC undertakes basin monitoring, data and information systems and services, modelling and assessments, basin planning, flood and drought forecastng, MRC procedures, dialogues and partnerships, and stakeholder engagement and communication.

National Support Office of the African Union Champion of Disaster Risk Management

https://www.undp.org/africa/press-releases/data-driven-disaster-risk-reduction-africa-shaping-resilient-future

The National Support Office (NSO) of the African Union Champion of Disaster Risk Management is an advisory body to the President of Mozambique in his quality of the African Union Champion in this subject. The National Office works in interaction with the Africa Multi-hazard Early Warning and Action System AMHEWAS) to provide technical and strategic advice to the Champion. The NSO is composed by six members representing the Ministry of Foreign Affairs and Cooperation, the Embassy of Mozambique to the African Union, the National Institute for Disaster Risk Management, the National Institute of Meteorology, and the Academia. The Academia is represented by the Oliver Tambo Africa Research Chair in Ecosystem-based Adaptation in Arid and Semi-arid Zones of the Eduardo Mondlane University.

The National Support Office is responsible to

a) Provide direct assistance to the President of the Republic of Mozambique in the exercise of his functions as African Union Champion for Disaster Risk Management;

b) Coordinate and organize information needed by the President of the Republic in the exercise of the functions of the African Union Champion for Disaster Risk Management;

c) Preparing an opinion on Disaster Risk Management matters;

d) Define and ensure the execution of the Champion's social communication plan;

e) Preparing studies and implementing the Champion's program of activities;

f) Drafting the program of activities and the respective plan of action for the Champion;

g) Coordinate with the African Union Commission and the Embassy of the Republic of Mozambique to the African Union in Addis Ababa;

h) Promote research to develop local knowledge;

i) Promote the activities of the Champion

Network of Sahel Universities

https://reunir.u-naziboni.bf/

The Sahel Universities Network for Resilience aims to establish a fruitful partnership between member institutions in the areas of resilience to food and nutritional insecurity, climate change and natural disasters. Six member universities from Burkina Faso, Niger, Senegal, Chad and Mali. Funding from USAID, WFP, and GIZ.

OR Tambo Research Chair in Ecosystem-based Adaptation in Arid and Semi-Arid Zones

No website

Mozambique ranks third among African countries most exposed to multiple weather-related hazards and suffers from periodic cyclones, droughts, floods, and related epidemics. Drought occurs primarily in the southern region, with a frequency of seven droughts every 10 years.

The focus for the initial 5 years of this Research Chair is to understand ecosystem services and local organizations in reduction of climate change vulnerability in arid and semiarid zones in the Limpopo Corridor (LC). The objective is to explore the potential of Ecosystem-based Adaptation (EbA) strategies to reduce vulnerability at local community level in semiarid regions. The ultimate motivation of the research is to assist local and national policies that can improve decision making processes toward resilient communities living in drought prone regions. While social and ecological conditions vary from one region to another, the methodological framework developed through the proposed research may be extrapolated to other comparable drought prone regions of Mozambique and Africa in general. The novelty of this proposal is the integrated approach of socio-ecological processes enabling or limiting climate change adaptation (CCA) options at the level of local community action.

For the management and communication purposes, the Research Chair established an advisory committee composed of UEM officials, including the Chairholder and the project manager, a representative of researchers, a representative of students, the representative of FNI, a representative of national academic partner institutions, a representative of international academic partners and the representatives of the national and district governments. The advisory committee is chaired by UEM Academic Vice Rector. The UEM Communication office provides assistance with all public communication. The main purpose of the committee is to provide linkages between the Research Chair and the Society and ensure that the research focus remains relevant to the participating communities.

PACCA – Policy Action for Climate Change Adaptation

https://doi.org/10.1007/978-3-319-92798-5_23

The PACCA project, initiated by CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), focused on building climate resilient food systems through climate smart agriculture in Uganda and Tanzania by coordinating policies and institutions at all levels of governance through eight Multistakeholder Platforms (MSPs). The platforms were embedded within government structures (for sustainability) and operated as independent platforms although initiated and partially funded by PACCA. Facilitation of meetings was entrusted to the platform-hosting institutions who were recognized for their authority, their central role in local knowledge exchange and their credibility among other stakeholders.

The platforms enabled their participants to share experiences and research findings on climate change. The PACCA project, as a member of the MSPs, contributed to the generation and dissemination of research findings on climate change adaptation contributing to an enhanced science-policy interface. This sharing of research evidence became the basis for discussions and helped define the efforts by the MSPs to influence policy.

Platform meetings, which generally took place quarterly, had two main sessions: the first featured sharing of research knowledge and experience, while in the second decisions were made in plenary through inclusive participatory processes, which normally involved working in groups followed by a plenary discussion. These processes of knowledge sharing contributed towards building trust between stakeholders and facilitated finding common goals and interests, which helped foster unified action.

The MSPs helped to build new networks and influence national and subnational policy and plans, for example by getting gender recognised as key to equitable adaptation. District platforms were able to engage in participatory zonal planning of their territories for the prioritization of adaptation investments. The success of these initiatives is reflecting in their increased institutionalisation and the formation of new MSPs, independent of PACCA, in both countries.

RUFORM

https://www.ruforum.org/

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), established by ten Vice Chancellors in 2004, is a consortium of universities in Africa. December 2022 membership stands at 163 universities in 40 countries. RUFORUM is registered as an International NGO (FORR78950) in Uganda and coordinated by a Secretariat hosted at Makerere University in Kampala. The organisation evolved from its predecessor, the Forum on Agricultural Resource Husbandry (FORUM) program of the Rockefeller Foundation.

SAPCC – South African Presidential Climate Commission

https://www.climatecommission.org.za/

The Presidential Climate Commission is an independent, multistakeholder body established by the President. Its purpose is to oversee and facilitate a just and equitable transition towards a low-emissions and climate-resilient economy. The PCC conducts, through engagement with researchers, rigorous and evidence-based research and communicates the findings transparently. The PCC works in an open and transparent manner with all stakeholders, with the aim of building social consensus around the complex and challenging decisions required to successfully navigate a just transition. This is done through dialogues, consultations, webinars, colloquiums, and conferences. The PCC also plays a role in hosting media briefings. There are seven programmes one of which is adaptation. The PCC is well positioned to accelerate the finalization of the strategies to implement the National Adaptation Plan and the development and implementation of the individual Sectoral Adaptation Plans. The PCC will further facilitate the development of new knowledge, commission projects to pilot and demonstrate new or better and innovative implementation and development pathways as well as catalysing access to Adaptation finance. The PCC will also facilitate Climate Adaptation partnerships both locally and internationally. These actions are intended to shorten the journey to an economy and society characterized by Resilience and Equity.

SGCI – Science Granting Councils Initiative in sub-Saharan Africa

https://idrc-crdi.ca/en/project/strengthening-capacity-africas-science-granting-councils-use-evidence-policy-and-decision

The SGCI was established to strengthen the capacities of science granting councils in 15 sub-Saharan African countries to support research and evidence-based policies that can contribute to economic and social development. The initiative aims to strengthen councils' ability to use data and evidence to design and monitor research programs and to formulate and implement policies:

- *to generate and use evidence (both qualitative and quantitative) in policy and decision-making and to enhance their roles as national policy champions through training and technical support.*
- *to develop robust organization-level monitoring, evaluation, and learning and data management systems;*
- *to systematically collect, analyze, and use internal administrative, financial performance, and grants management data for project/ program management and policy/decision-making;*
- *to conduct reviews of their national policies to improve their decision-making processes, enhance their knowledge of the policy process, and strengthen their roles as policy champions;*
- *to facilitate peer-to-peer learning among councils through initiatives such as staff exchanges and learning visits about the use of evidence in policy and decision-making; and to engage with policy and other decision-makers in their countries.*

Funding: multi-donor initiative supported by the Swedish International Development Cooperation Agency, the United Kingdom's Foreign, Commonwealth and Development Office, IDRC, South Africa's National Research Foundation, and the German Research Foundation

TEFN – Transforming Evidence Funders Network

https://transforming-evidence.org/projects/transforming-evidence-network

The Pew Charitable Trusts' evidence project launched the Transforming Evidence Funders Network (TEFN) with the William T. Grant Foundation and other philanthropic partners in 2020. TEFN convenes public and private funders from around the world who are driving change in how evidence is generated, mobilized, and used to address complex societal challenges.

By leveraging funders' existing efforts and shared priorities, TEFN aims to foster inclusive, impactful research, consistent evidence use in policy and practice, and collaborative problem-solving approaches that produce effective solutions and equitable outcomes. Many TEFN participants are invested in strategies that bring diverse groups together to identify problems and evidence-informed solutions. These engaged approaches allow practitioners, policy professionals, and community leaders to partner with researchers, weaving together their multiple forms of expertise.

Through TEFN, participants share strategies, resources, and insights about how they can use their funding to support effective evidence initiatives. They focus on areas in which coordinated action among funders might catalyze large-scale changes in research, policy, and practice to improve the chances that evidence is useful and used.

TEN – Transforming Evidence Network

https://transforming-evidence.org/projects/transforming-evidence-network

Although a global network, we felt that it was useful to include as it recognises that not enough is being done to get research into policy and practice.

The Transforming Evidence Network (TEN) is a global, cross-sectoral platform for evidence experts to learn and innovate together about making, mobilizing, and using evidence. A collaboration of The Pew Charitable Trusts, the William T. Grant Foundation, and Transforming Evidence, the network connects researchers, practitioners, policy professionals, community leaders, funders, and other evidence experts. TEN aims to catalyze inclusive, impactful approaches to research, meaningful evidence use in policy and practice, and equitable solutions for societal challenges around the world.

TEN hosts conferences and other events, including roundtables and workshops, to build community among evidence experts, highlight promising practices and insights, and advance a forward-looking research and action agenda for transforming the evidence ecosystem.

For example, Iit supports a biannual international conference which brings together funders, decision-makers, practitioners, brokers and researchers to share lessons about how we make and use evidence, and to identify pressing research questions. They also host seminar series, which are deep dives into topics of interest to their research and practice communities. Our current online free series is about Evidence Intermediaries Organisations.

WeAdapt

https://www.weadapt.org/

WeADAPT is an online 'open space' on climate adaptation issues (including the synergies between adaptation and mitigation) which allows practitioners, researchers and policy makers to access credible, high quality information and to share experiences and lessons learnt with the weADAPT community.

It is designed to facilitate learning, exchange, collaboration and knowledge integration to build a professional community of research and practice on adaptation issues while developing policy-relevant tools and guidance for adaptation planning and decision-making.

Framework for high-level in-country engagements in LIBERIA to support ARA co-creation process.

Principal Investigator: Asst. Prof. James McClain
Faculty, Department of Environmental Studies & Climate Change

Co-Investigator: Mr. Forkpah Pewee
Chair (Head of Department)
Department of Public Health, University of Liberia

Researcher Mr. Lewis Aldo
Research Assistant, Department of Environmental Studies & Climate Change

Table of Contents

1.0 Background

Liberia is susceptible to the effects of climate variability and change, such as an increase in annual precipitation and the frequency of significant rainfall events. Liberia's capacity to adapt to climate change was hindered by the civil war that occurred between 1989 and 2003. Since the conclusion of the war, the government, along with numerous international and national institutions and organizations, has taken measures to better comprehend and address climate change challenges across the nation (USAID, 2010). With increased instances of inundation across the nation, changes in climatic conditions, and low agricultural yields in Liberia and the rest of the world, the effects of climate change are becoming more obvious and pervasive. Climate change poses an undeniable environmental threat to the social and economic development of LDCs like ours, which are more vulnerable to its effects due to their limited adaptability. Not only do the effects of climate change in Liberia undermine development gains, but they also pose severe threats to food security and adaptive capacity, necessitating immediate and concerted national action. Due to low levels of human and institutional capacity, technology, infrastructure, and economy, among other factors, Liberia is severely impacted by climate change because of low levels of adaptive capacity in various sectors.

Individuals, educators, policymakers, and businesses must all act on a societal scale to combat climate change. Climate change is mitigated by increasing awareness, building capacity, and innovating.

Aims:

The objective was to determine how high-level Liberian stakeholders perceive their role in action-oriented adaptation research. The "High-level Stakeholder Engagement" workshop focuses on how action-oriented adaptation research can be incorporated into policy or practice and addressed, given its scope and impact. In this Expression of Interest (EOI), a team from the University of Liberia engaged with government authorities such as the EPA and line ministries, civil society organizations, stakeholders, and academics on how to incorporate adaptation research, particularly locally led adaptation (LLA) research and knowledge, into policy and practice.

- To investigate the high-level engagement stakeholders, the workshop questions are as follows:

- What new adaptation policies, strategies, and implementation programs are planned to be implemented?
- How local research could improve their effectiveness How could research conducted at the local level contribute to these new policies and programs? and
- Do you have the time and capacity to influence or enlighten policy or practice through local adaptation research?

- To be useful to your efforts to influence policy or practice with local adaptation research.
- To demonstrate the benefits of continued participation and persuade high-level stakeholders to participate further in the co-creation process, with a focus on encouraging participants to attend an online workshop of high-level stakeholders.

2.0. Workshop Report

2.1. Total Participants

a) Total: Fourteen (14) of the twenty (20) participants were present excluding the five faculties from the Department of Environmental Studies and Climate Change, University of Liberia.

b) Gender

Males: three (3)

Females: Eleven (11)

Other / non-binary:

c) Sectors

National government:

- Assistant Manager; Chief Technical Advisor (third in administration at the EPA Liberia) **- Environmental Protection Agency**,
- Meteorology Observer – **Ministry of Transports**,
- Assistant Director – **Liberia Land Authority**,
- Registered Nurse – **Ministry of Health**,
- Manager – **Forestry Development Authority**,

- Environmental Manager – **Liberia Institute of Statistics and Geo-Information Services**,

Local government: No formal invitation was sent.

Funders:

- Representative – **African Development Bank Liberia Office**,

Multilateral organisations or INGOs:

- Conservation International, Liberia Office was invited but **did not** participate.

Local NGOs or civil society:

- Data Manager – **Society for the Conservation of Nature in Liberia (CSO)**,

Business:

Academia:

- College of Science & Arts Coordinator – **United Methodist University**,
- Dean – **College of Science & Technology University of Liberia**,
- Graduate Coordinator– **Department of Environmental Studies and Climate Change University of Liberia**,
- Chair or Head of Department – **Public Health Department University of Liberia**,
- Graduate students– **Department of Environmental Studies and Climate Change University of Liberia**, and
- Faculties– **Department of Environmental Studies and Climate Change University of Liberia.**

2.2. Learnings from your engagement (How participants responded)?

Q1. What new adaptation policies, strategies, and implementation programs are your department or organization developing? What role do you perform in the creation of these new adaptation policies and programs?

Here in Liberia, the EPA is responsible for adaptation policy, while other institutions extract a portion of the funds for development. For the University of Liberia, all policy-related information is essential to our academic endeavors. The government is currently developing a new adaptation policy, which is the BTR and the third National Communications. The government, through the EPA, launched Adaptation Communication (ADCOM) and the Liberia

National Adaptation Plan 2020–2030 in December 2022, but no implementation strategies or models were developed to assure the success of the policy. We are currently creating the third national communication and BTR based on the BUR, but what did we learn when these policies were in effect? What additional information will be added to the preceding documents? Nonetheless, the participants proposed an adaptation plan that could be modelled into a strategy plan to assist the community in adapting to the effects of climate change.

The EPA typically issues invitation letters to institutions and UNFCCC experts to participate in the development process of adaptation documents. Typically, institutions or individuals are invited to participate in the validation process after the consultant's work has been concluded.

Q2. What partnerships or engagements with local universities, researchers, or other holders of local knowledge have been established as part of your new policy or program?

An MOU between the University of Liberia and the EPA led to the establishment of Environmental Studies and Climate Change graduate and undergraduate programs at the University of Liberia. The budget for the NAP supported the establishment's funding. Since their inception, UL and EPA have collaborated on numerous documents, including the Liberia NAP 2020–2030 and CBIT initiatives, among others. The Liberia office of Conservation International (CI) is a second institution collaborating with the University of Liberia. Our graduate students will collaborate on projects with international and local experts at CI, as well as the international or local expert teaching in the UL graduate program. UL, EPA, and CI collaborated on the CBIT initiative, with UL serving as the GHG inventory mapping research arm. The University of Liberia will collaborate with other institutions that participated in the workshop.

Q3. How could local universities and researchers better support your work, policies, and programs?

By signing MOUs to define the level of commitment for institutions, research and local universities can better support institution work, policies, and programs through collaborative measures. Participants also proposed a location where institutions could convene to provide meaningful information. They might be interested in collaborating with the university to conduct action-oriented research.

Q4. Do you see value in participating in an action-oriented research program for LDCs, either on your own or with your organization or department?

All participants committed to participating as individuals and organizations in an action-oriented research program. A platform could be action-oriented; if established and the necessary training is provided, everything else will fall into position. The central theme of the

workshop was action-oriented research, with all attendees expressing admiration and suggesting that more be done. When Leigh's 10-minute video was played, in which she provided the simplest definition of action-oriented research, there was a significant increase in interest.

Q5. Have you the aptitude to play a role in influencing or informing policy or practice with local adaptation research?

Local adaptation research has limited capacity to influence or enlighten policy or practice. We primarily conduct individual or academic research for publication and promotion purposes. This paradigm transition from academic or individual research to policy-aligned research is novel and will necessitate additional training and capacity-building. Participants even inquire as to when this training will commence.

Q6. Specifically, are you interested in one or more of these options?

- **Multisector capacity development**

  Yes, everyone is willing to partake in multisector capacity building.

- **A transdisciplinary Excellence Center**

  For the country's fight against climate change, the establishment of a transdisciplinary Center of Excellence on Climate Innovation will be phenomenal. The participants concurred that once the center is established, they will be able to meet there to discuss climate-related issues. The center could be used to present a talk show by reversing the information provided by guests and participants.

- **A data warehouse**

  It is essential to have a platform for exchanging data. The EPA has two information-sharing platforms with limited content. The Environmental Protection Agency manages a platform dubbed "Climate Change Knowledge Sharing Platform" (CCKSP) in Liberia. However, it is crucial to create a data repository where government, CSO, NGO, and academics can access climate change data. One of the reasons cited by participants for the construction of the data repository is policy formulation and data comprehension for decision-making.

- **A sector-spanning advisory platform**

  The information on the establishment of a multisectoral advisory platform was extremely impressive. However, it was not possible to model the function of the advisory platform; therefore, devising a unique objective of function for establishing such a platform will be greatly appreciated. Participating in the development of research

proposals and co-supervising students. Participants and faculty are eager to contribute to proposal creation. However, faculties have also expressed a desire to co-supervise students, but will require training to do so effectively.

Q7. Do you have examples or ideas for other innovative solutions for getting local research into adaptation efforts?

Research and development facilitate innovation because they provide the data and insights necessary to introduce new products and services. During the development of the NDC, the country establishes its adaptation targets and actions for eight sectors (Table 1), which, if implemented, could assist local communities in adapting to the effects of climate change and boost the country's adaptive capacity. Sadly, none of the objectives have been implemented. However, the most recent development in fisheries was the establishment of an undergraduate Fisheries and Aquaculture program at the University of Liberia in support of capacity building. The degree curriculum includes a certificate program for technician training.

Table 1: Liberia Adaptation Goals, Action, and Targets

Sectors	Targets	Adaptation Actions
Agriculture	- Develop incentives and programs to promote crop and livestock diversification. - Develop facilities and climate smart technologies to promote pot-harvest and value additional practices	- Capacity building - Increase budget for agriculture and livestock. - Strengthen EKMS (local knowledge) - Crop and livestock insurance system - Early warning systems - National dietary guidelines - Establishment of national institute
Forest	- Catalogue 100% of water catchment in forest areas - Develop alternative livelihoods programs with forest dependent people in five forested counties	- Capacity building - Encourage sustainable fuelwood / charcoal production with alternative domestic energy options.

		- Implement benefit sharing mechanism for forest communities. - Increase funding for research on adaptive forest management solution. - Develop an adaptive forest management and conservation plan to prevent poaching, forest fire, land conservation, invasive species and diseases
Coastal Zones	- Implement green, gray infrastructure. - Early warning system	- Capacity building - Strategic communication plan - Invest in coastal monitoring equipment
Fisheries	- Establish two marine protected areas by 2030 and co-manage fishery areas in coastal and aquatic ecosystem. - Support alternative fishery livelihoods	- Identify and locate endangered and vulnerable fish species. - Capacity building - Invest in marine store and tracking systems. - Integrate fisheries fully into climate change adaptation and food security policies. - Increase capacity building of women involved in marketing and smoking fish. - Early warning system for threats
Waste	- Improve landfill practices or establishment of new landfills. - Small scale compositing of market waste	- Provide technical or logical support.

		- Strengthening the institutional and legal situation at national and municipal levels
Health	- Strengthen preventive measures to address health issues like outbreak, malnutrition and malaria prevalence. - Train and deploy 1000 community health assistants, 500 environmental health technician and 240 specialists for referral facilities	- Establish 425 health clubs. - Increase funding by 500,000 USD per year for research. - Develop climate health hazard risk mapping. - Mobilize and sustain financial resources for national level engagement
Transport	- Support the implementation of infrastructure that foster the development of a bus public transport network	- Continuation of road upgrading and construction - Review of the institutional framework
Energy	- Create private investment enable PPA in renewables. - Reconnect Monrovia to the grid. - Development of grid small HPP and on grid ones via PPAs - Develop large PV plants	- Improve policy making capacity with better cross sector coordination. - Support the implementation of a full de-regulation of electricity sector. - Improve adaptive capacity

Innovatively, providing the appropriate training that will enable the participants to begin to comprehend and research the targets of Liberia adaptation action will be fundamental. Introducing new techniques or knowledge or establishing successful ideals to establish new values for our adaptation action plan will be appreciated. Innovation is characterized by its ability to generate value.

2.3. Other outcomes

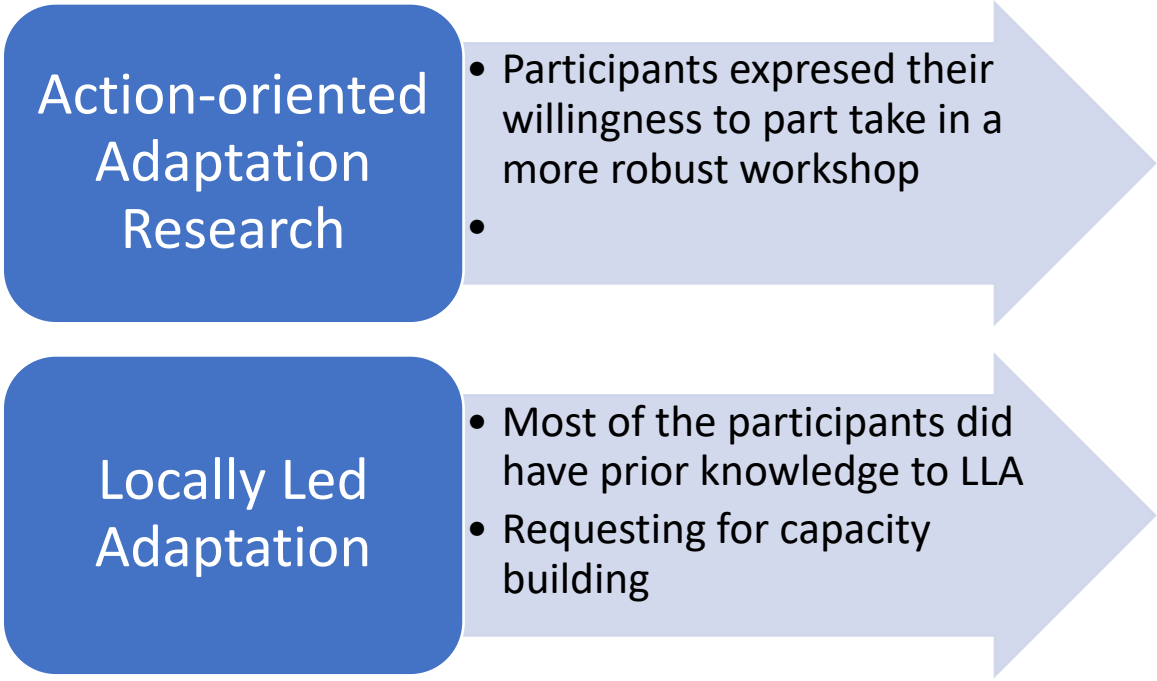
a. Locally Led Adaptation

This was one of the topics about which the majority of participants knew little or nothing. The country has not yet begun its locally led adaptation activity, and the participants have a positive attitude toward LLA. The importance of a face-to-face workshop on LLA in our fight against climate change cannot be overstated. LLA was of great significance to SCNL. Though the the Civil Society Organization, the EPA is third in government represented by command and the Ministries of Transport and Health, respectively, are interested in the LLA program, all institutions at the high-level engagement workshop are adamant about participating in an LLA workshop and determining how it can be implemented at their respective stations. LLA is extremely important for their institutions, including the EPA, but they lack the capacity to implement it. The development of LLA will contribute to climate-related government policy, strategies, and implementation.

> ***SCNL** was interested on how the institution can integrate their already "National Climate Change and Gender Action Plan" in LLA*

b. Action-oriented adaptation research (How do you regard action-oriented adaptation research participation?)

Participation in action-oriented adaptation research is crucial to the creation of new policies and the revision of existing ones. All institutional representations declare their intent to participate in such an endeavor. Participants are introduced to the fundamentals of action-



oriented adaptation research. We intend to continue our planning process, which began on August 25, 2023.

c. Interview

We were unable to interview the chosen stakeholders. The representatives of the stakeholders were responsible for answering all queries during the workshop.

2.4. Reflections for in-country workshop

a) Was this engagement useful to you and to those who participated in it? Please provide honest feedback, it can be critical!

   Participants were exposed to two novel bodies of knowledge: action-oriented adaptation research and locally led adaptation. Once implemented, these topics will elevate the commencement of the Liberia adaptation program to a higher level.

b) Do you think that this form of distributed responsibility is valuable in a co-creation process? Yes, it is valuable in the co-creation process. In other words, do you think that co-creation processes should consider giving some responsibility for hosting engagements to others outside of the core organisations? With funding, I am considering bringing the co-creation workshop to other regions of the country where climate change has had a significant impact.

2.5. Suggestions for regional online workshop

a) Do you have any suggestions for the format or focus of the planned online workshop?

The participants have been informed about the forthcoming online workshop, and we trust they will be present.

b) Do you feel that your participants will join the event?

Participants are informed, but participation is contingent on their availability. However, a more convincing message regarding the significance of the online workshop will be sent. Due to ***connectivity issues, many participants will not attend the meeting.***

c) Do you feel that your participants will feel able to share their experiences from your engagement openly, or are there any politics that might limit their involvement?

If the participants participate, they will openly discuss their experiences from the workshop on high-level engagement in Liberia.

2.6. In-country Costs

a) What did your engagement cost in total?

Concerned about the workload of a larger team, it was suggested that the total budget for the high-level engagement in the country workshop be increased to **£2,500** to reflect everyone's efforts.

Breakdown

1. High-level engagement workshop $1,155
    a. Cost of Food $375
    b. Cost of Hall $250
    c. Transportation for participants excluding faculties. $400
    d. Stationery $25
    e. GST 10% of (a + b + c + d = subtotal) $105

    Total **$1,155.00 (£913.24)**
2. Faculties (not yet receive) £1,586.76

b) Was the funding allocated adequate for this scale of engagement?

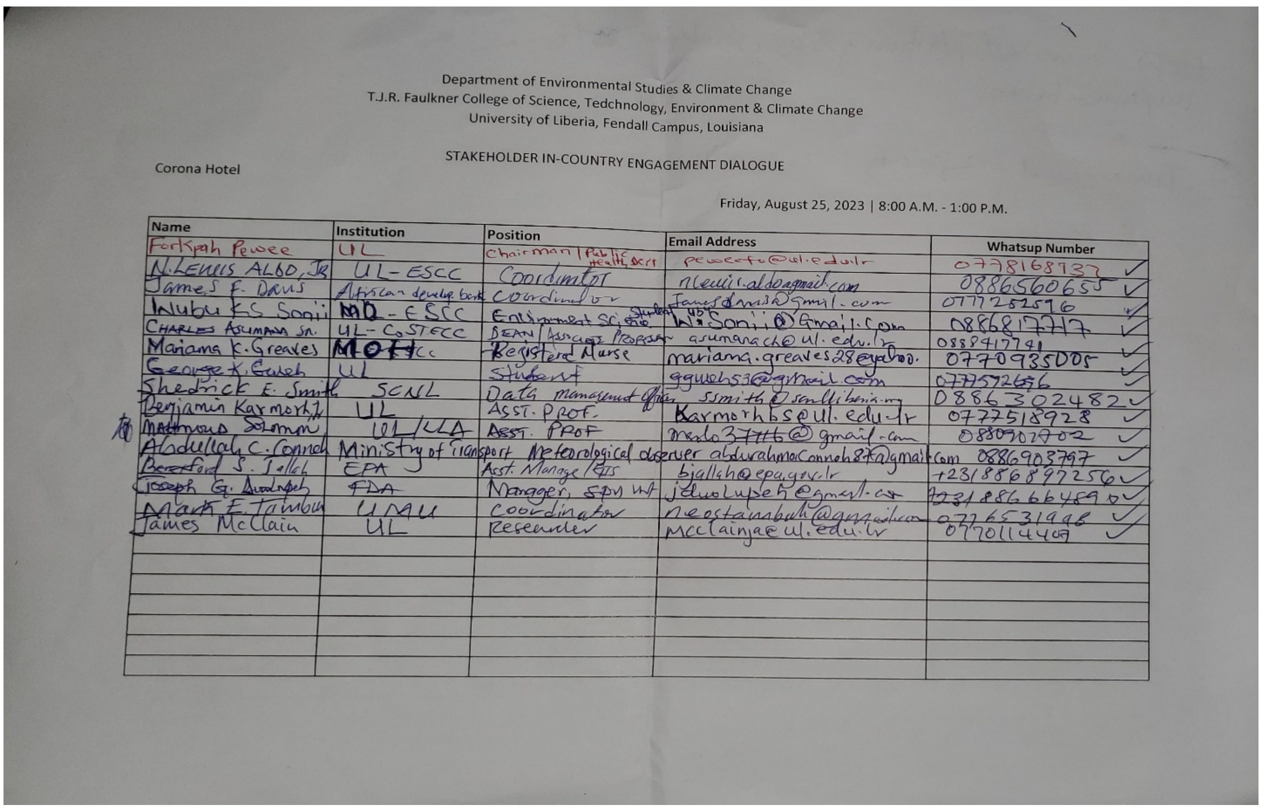
The budget allocation was adequate. However, the amount for the faculties that participated in the high-level country dialogue engagement has not yet been received.

3.0. Event registration:

Name of event: ***"Hi-Level Engagement to Understand Liberia Adaptation Policy and Implementation"***

Date: ***Friday, August 25, 2023 | 8:30 A.M. – 2:00 P.M.***

Venue: ***Corina Hotel & Realty Corporation | Tubman Boulevard | Sinkor | Monrovia, Liberia***



Department of Environmental Studies & Climate Change
T.J.R. Faulkner College of Science, Tedchnology, Environment & Climate Change
University of Liberia, Fendall Campus, Louisiana

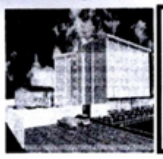
Corona Hotel

STAKEHOLDER IN-COUNTRY ENGAGEMENT DIALOGUE

Friday, August 25, 2023 | 8:00 A.M. - 1:00 P.M.

Name	Institution	Position	Email Address	Whatsup Number
Forkpah Pewee	UL	Chairman / Public Health Dept	peweefo@ul.edu.lr	0778168937 ✓
N. Lewis Aldo, Jr	UL-ESCC	Coordinator	nlewis.aldo@gmail.com	0886560655 ✓
James F. Davis	African develop. bank	Coordinator	Jamesfdavis3@gmail.com	0777252596 ✓
Inubu KS Sonii	MD - ESCC	Environment Sc. Student	W.Sonii@Gmail.com	0886817717 ✓
Charles Asumana Sr.	UL - CoSTECC	Dean / Associate Professor	asumanach@ul.edu.lr	0888417741 ✓
Mariama K. Greaves	MOH	Registered Nurse	mariama.greaves28@yahoo.	0770935005 ✓
George K. Gweh	UL	Student	ggweh53@gmail.com	0777572636 ✓
Shedrick E. Smith	SCNL	Data management officer	ssmith@scnlliberia.org	0886302482 ✓
Benjamin Karmorh, Jr	UL	Asst. Prof.	Karmorhbs@ul.edu.lr	0777518928 ✓
Mahmoud Solomon	UL/LLA	Asst. Prof	[illegible]@gmail.com	0880907702 ✓
Abdullah C. Conneh	Ministry of Transport	Meteorological observer	abdurahmaconneh87@gmail.com	0886903797 ✓
Beresford S. Jallah	EPA	Asst. Manager / EIS	bjallah@epa.gov.lr	+231886897256 ✓
Joseph G. [illegible]	FDA	Manager, SPM Unit	jduolupeh@gmail.com	+231886664890 ✓
Mark E. Tambah	UMU	Coordinator	neostambah@gmail.com	0776531948 ✓
James McClain	UL	Researcher	mcclainja@ul.edu.lr	0770114407 ✓

Appendix A: Invoice



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INVOICE 394-023

QU:
Org: **Interfer Pty Ltd**
Workshop

Nabeel Petersen/+27 72 7776161

Email: neostambah@gmail.com/27 72 7776161
SUBJ: One Day Workshop for/20pax/August 28,2023
Time: 8am-4pm
Date: 08/25/2023
Package: Breakfast, Lunch, (Water & Juice), One round water in session. Wireless Internet Access Five User (5), PA System, Flip Chart Stand & Projector.

Details	DAY(S)		PAX(#)		USD	AMT (USD)
Cost of Food:	1	X	20	X	18.75	375.00
Cost of Hall:	1	X	1	X	250.00	250.00
Participant Transportation	1	X	1	X	400.00	400.00
Cost of Stationery:Pen& Note Pads	1	X	1	X	25.00	25.00
	1	X	1	X	0.00	0.00
	1	X	1	X	0.00	0.00
				Sub Total		1,050.00
				Gst 10%		105.00
(One Thousand, One Hundred & Fifty Five) United State Dollars.				Total		1,155.00

Signed:
Samuel A. Mitchell, Jr.
CEO

CORINA HOTEL & REALTY CORPORATION

Appendix B: Proposal

"Hi-Level Engagement to Understand Liberia Adaptation Policy and Implementation"

Principal Investigator: Asst. Prof. James McClain
Faculty, Department of Environmental Studies & Climate Change
Assigned Courses: Statistics; Climate Change Adaptation

Co-Investigator: Mr. Forkpah Pewee
Chair (Head of Department)
Department of Public Health, University of Liberia

Researcher Mr. Lewis Aldo
Research Assistant, Department of Environmental Studies & Climate Change

Asso. Prof. Charles Asumana
Consultant, BTR
Environmental Protection Agency

Invitees

Institution	Relationship	
	Existing	New
Environmental Protection Agency	XX	
Conservation International	XX	
Line ministries		XX
Society for Conservation of Nature in Liberia (SCNL)	XX	
ENVIRONCON		XX
Selected Faculties, Department of Public Health, University of Liberia	XX	
Selected faculties, Department of Environmental Studies and Climate Change, University of Liberia	XX	
Academic institutions		XX

Background

Liberia is susceptible to the effects of climate variability and change, such as higher temperatures, an increase in annual precipitation, and an increase in the frequency of significant rainfall events. The civil conflict that occurred in Liberia from 1989 to 2003 had a negative impact on the country's ability to adapt to climate change. Since the end of the conflict, the government, along with numerous international and national institutions and organizations, has taken steps to better understand and address climate change challenges across the nation (USAID, 2010). With increased instances of flooding across the country, alterations in climatic conditions, and low agricultural yields in Liberia and the rest of the globe, the effects of climate change are becoming even more apparent and pervasive. Climate change is undeniably a significant environmental hazard to the social and economic development of LDCs like ours, which are more susceptible to its effects due to their limited capacity to adapt to them. The effects of climate change in Liberia not only undermine development gains, but also pose grave threats to food security and adaptive capacity, necessitating immediate and concerted national action. Due to low levels of human and institutional capacity, technology, infrastructure, and economy, among other factors, climate change has a severe impact on Liberia[1] due to the low level of adaptive capacity in various sectors.

Individuals, educators, policymakers, and enterprises must all take action to combat climate change on a societal scale. Climate change is mitigated by promoting awareness, capacity building, and innovation.

[1] Food and Agriculture Organization

Individuals, educators, policymakers, and enterprises must all take action to combat climate change on a societal scale. Learning about climate change helps communities and individuals reduce greenhouse gas emissions and effectively adapt to the changing climate by fostering awareness, capacity development, and innovation.

The **climate risk profile of Liberia** has identified deficiencies in research, data, and institutions. Improving partnerships between the government and universities in the nation could bridge the divide between the government and universities and improve the transformation of research documents into policy documents. In addition, the **Liberia Second National Communication (SCN)** identified several areas of concern, including insufficiently trained human resources and the absence of public meteorological services, among other pertinent information. Therefore, it is essential to collaborate with the government through the Environmental Protection Agency to initiate action-oriented adaptation research.

Aims:

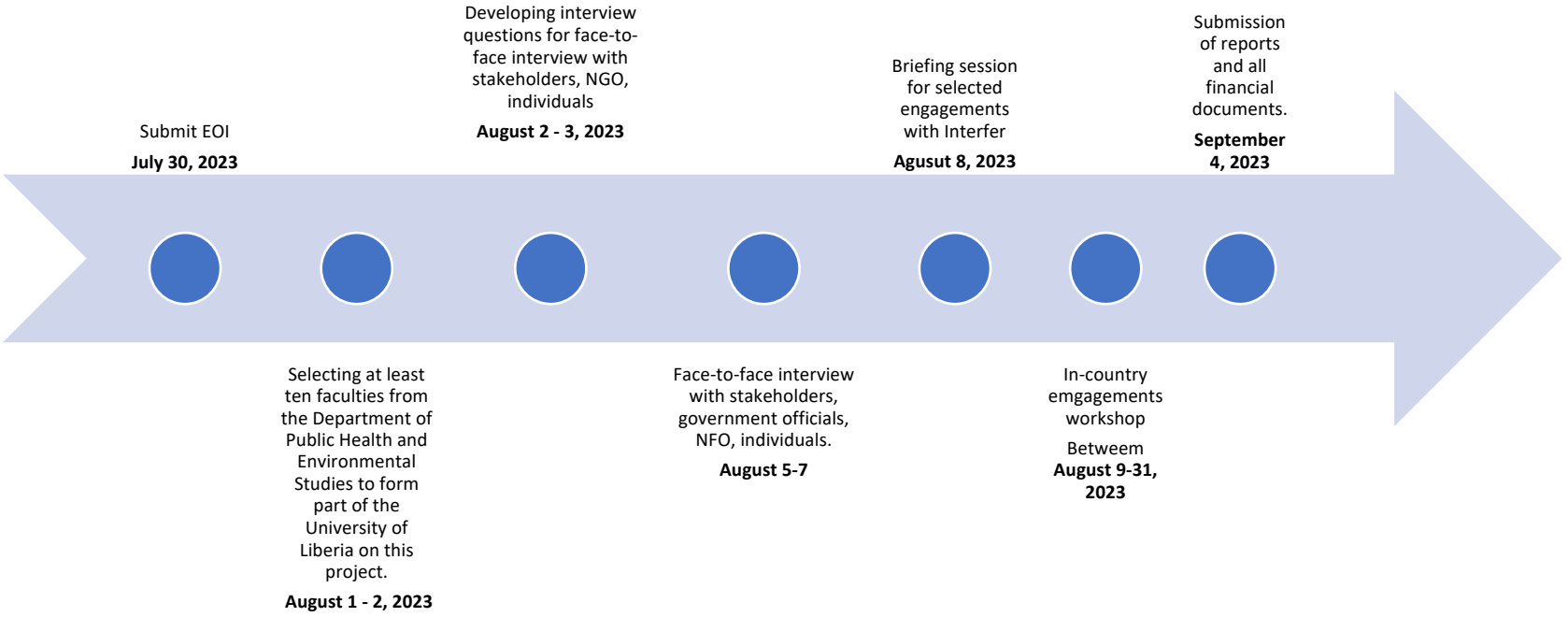
The question of whether adaptation research has been incorporated into policy or practice must be addressed, given the scope of action-oriented adaptation research and the fact that it will have a significant impact on many aspects of life. In this Expression of Interest (EOI), the research team will engage with government authorities, civil society, stakeholders, and academics on how to incorporate adaptation research, particularly locally led adaptation (LLA) research and knowledge, into policy and practice. Consequently, the specific research objectives at the conclusion of the high-level engagement are to:

- Identify proposed new adaptation policies and implementation programs by high-level stakeholders.
- Develop a more effective plan to support local adaptation efforts.
- Evaluate adaptive capacity that may have a significant impact on local adaptation research or policy or practice.
- form a group that will participate in an action-oriented research program for LDCs.

Significance

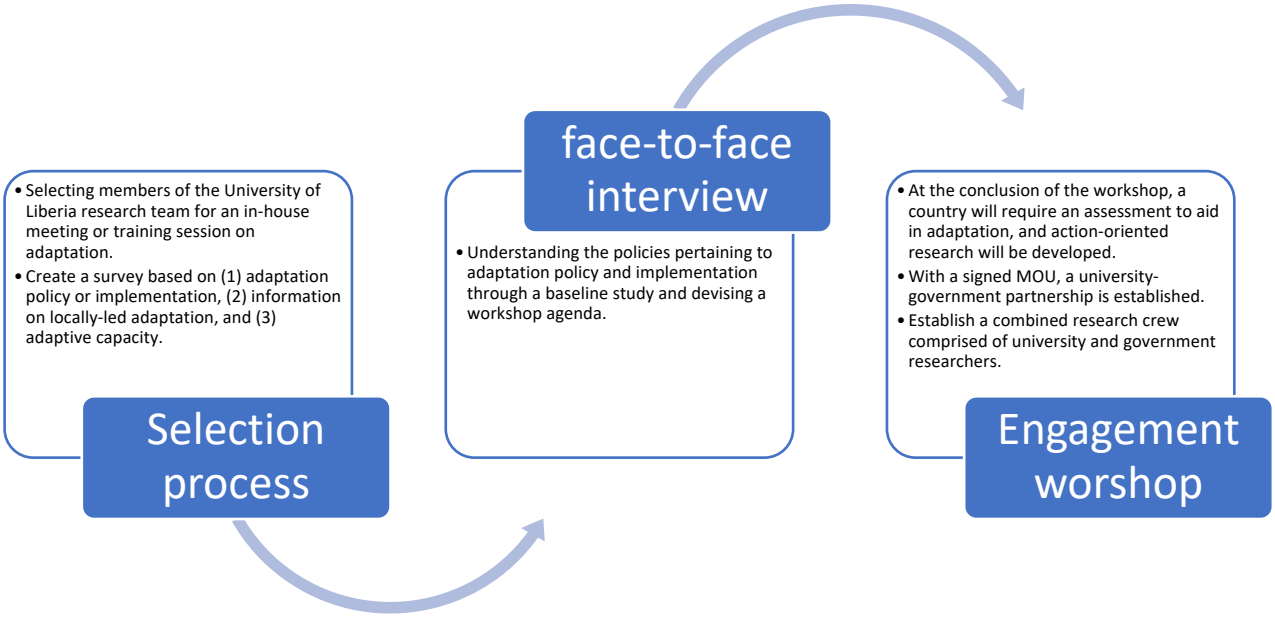
Incorporating predicted climate change and collaborating with institutions to conduct adaptation research that could be used for policy and locally led adaptation, the significance of the proposed expression of interest will aid in informing the government on its adaptation actions. Additionally, the significance will enhance adaptability and collaboration. Finally, the government through the Environmental Protection Agency are willing to participate in the exercise. We also contacted the Society of Conservation of Nature in Liberia (SCNL) a civil society organization expressed their willingness to participate.

Proposal Outline



The official proposed start date for the EOI shall begin August 4, 2023.

Research Design or Approach



Budget

1. Honorarium				
	Qty	Cost	Total	**Justification**
Five faculties honorarium **(5 faculty*five days*£10)**	5	£ 100.00	£ 500.00	After training the selected faculties will carry on the face-to-face survey along with the PI and Co-I. The total five days will be needed for the survey. Each faculty shall receive £10 per day for five working days. **5 faculties *£100.**
PI Honorarium	15	£ 50.00	£ 750.00	The PI honorarium is **£50 per 15 working days** excluding any fringe benefits.
Co-PI	10	£ 25.00	£ 250.00	**The Co-PI honorarium is £25 per 10 working days excluding any fringe benefits.**
Honorarium sub-total (A)			**£ 1,500.00**	
2. Direct Cost				
Stationary materials				The stationary will be used during the High engagement workshop meeting and during the training session of faculties. **The total of £19.69 will be used from the direct cost.**
25 note pads & Pen (purchase by Hotel)	1	£ 19.69	£ 19.69	
sub-total			**£ 19.69**	
Transportation				Transportation for the 20 participants at the High-level engagement in country workshop
20 Participants	**20**	**£ 15.75**	**£ 315.00**	
sub-total			**£ 315.00**	
Engagement Workshop for one day				
one-high engagement workshop for 20 people from government, NGO, civil society, line ministries, and stakeholders and the selected faculties from the University of Liberia		**£ 295.29**	**£ 295.29**	The total of 20 people high engagement workshop will be held for a day. Breakfast, lunch, drinks = £295.29. Hall rental fees = £196.92

Hall Rental Fees for one-day	**1**	**£ 196.92**	**£ 196.92**						
sub-total			**£ 492.21**						
Sub - Total B			**£ 826.90**						
Miscellaneous (@10% on direct cost)			**£ 82.69**						
Grand Total (A + B)			**£ 2,409.59**						

References

USAID. (2010). *Climate change adaptation in Liberia.* United States Agency International Development.

Appendix C: Selected Photos

On going group discussion

Group Presentation

Group Presentation

Group Presentation

Group Presentation

M.C.

Group Photo

Group Photo

Group Photo

High-level Science Engagement to Support Climate Change Adaptation Action Research

Science Engagement Summary Report: Mozambique

September 13, 2023

Report Prepared by Almeida Sitoe

Contents

1. Introduction

Climate change (CC) has been increasingly recognized as a key factor affecting negatively the development pathway globally. The Southern African region is particularly prone to extreme climate events, mainly droughts, floods, and tropical storms. The direct impacts have been reflected in loss of lives, property and crops, destruction of infrastructure, and population displacement, with high cost to regional economies and consequences for local communities. Ecosystem services and local community organizations, both key components for increasing local adaptation, have experienced degradation and disruption, exposing millions of people to risks and need. Mozambique ranks third among African countries most exposed to multiple weather-related hazards and suffers from periodic cyclones, droughts, floods, and related epidemics. Drought occurs primarily in the southern region, with a frequency of seven droughts for every 10 years ([1]). According to a number of studies ([2],[3]), CC is likely to worsen current climate variability, leading to more intense droughts, unpredictable rains, floods, heat waves and uncontrolled fires.

In face of the afore mentioned conditions, it has been recognized that climate change adaptation is key to support communities, institutions, and ecosystems to adjust to the new reality and cope with frequent extreme climate events. However, little has been documented on the baseline conditions and specific roles of ecosystem services and the local organizations for CC adaptation in these regions. Given the growing interest and needs for climate adaptation policies and programs in Mozambique, it is important that this gap is filled.

While research institutions have been providing support to the development of national policies, they lack the necessary support base in research oriented towards climate change adaptation. This is a trend among Least Developed Countries (LDC). A study carried out by Adaptation Research Alliance revealed that Universities in least developed countries (LDC) contribute very little to research on adaptation to climate change. Most of the research in these countries is conducted by foreign universities (from the northern hemisphere).

It is in this context that the Eduardo Mondlane University, through the Oliver Tambo Africa Research Chair in Ecosystem Based Adaptation in Arid and Semiarid Zones (ESORCCAS)[4] has been engaged in co-creation of an action-oriented adaptation research program to be led by

[1] Brito R, Julaia C. Drought characterization at Limpopo Basin Mozambique [Internet]. 2007 [cited 2023 Aug 1]. Available from: http://www.biofund.org.mz/wp-content/uploads/2018/11/1543565165-F2319._ _Ir21 Drought Characterisation.Pdf

[2] Winthrop M, Kajumba T, McIvor S. Mozambique Country Climate Risk Assessment Report [Internet]. Maputo; 2018 [cited 2023 Aug 1]. Available from: https://www.climatelearningplatform.org/

[3] Mcsweeney C, New M, Lizcano G. Climate Change Profile Mozambique Climate Change Profile: Mozambique [Internet]. Vol. 7, Climate Service Center. World Bank Adaptation Partnership; 2015 [cited 2023 Aug 1]. 21 p. Available from: http://sdwebx.worldbank.org/climateportalb/doc/GFDRRCountryProfiles/wb_gfdrr_climate_change_country_profile

[4] https://olivertambo.uem.mz/index.php/home

LDC universities[5]. The co-creation process is in line with the objectives of ESORCCAS to bridge the gap by promoting science engagement in view to mainstream research results into policies and practices. To fulfill this objective, ESORCCAS established an interdisciplinary advisory committee to facilitate the interactions between the society and the researchers. In addition, ESORCCAS represents the academia within the National Support Office of the African Union Champion of Disaster Risk Management, His Excellency Filipe Jacinto Nyusi, the President of Mozambique. One important step of the co-creation process is the high-level engagement of policy makers and key stakeholders in the arena of sustainable development and climate change.

2. Objectives

The aim of the high-level engagement meeting is to contribute in the science-to-policy dialog to promote and mainstream action-oriented adaptation research program into national policies. The main objective is to present and emphasize the importance/role of the evidence-based decision making with focus on scientific and local knowledge, and the role of action-oriented adaptation research as a base to generate knowledge and document lessons learned. The main expected outcome is to increase the relationship between Eduardo Mondlane University and the society (government, civil society, development partners, private sector) and promoting research to support the implementation of the National Adaptation Plan (NAP) and create the bases for an effective action-research to support the implementation of the National Adaptation Plan.

3. Methodological approach

To materialize this objective, a high-level meeting that brought together 21 representatives of different stakeholders was held at the Radisson Blu Hotel in Maputo City on August 28, 2023. The selection of stakeholders was based on previous interactions in national climate change policy development consultation processes and national reports. The selected stakeholders include national government officials, parliamentarians, representatives of international development cooperation agencies, civil society organizations, the private sector, and academia (see Table 1 for the list of participants in the meeting and Annex C for the list of invitees).

The engagement meeting followed the agenda as indicated below:

1. Presentation of meeting objectives and Agenda (ESORCCAS Chairholder)
2. Self-introductions of the participants
3. High-level briefing (National Director for Climate Change as Representative of the Minister of Land and Environment) presents the Strategic Priorities of the NAP
4. Official opening of the Meeting (Rector of Eduardo Mondlane University)
5. ARA representative brief presentation of the Co-creation process
6. ESORCCAS Chairholder presents the role of action-oriented adaptation research
7. Open discussions

[5] https://www.adaptationresearchalliance.org/resources/co-creating-an-action-oriented-adaptation-research-programme-to-be-led-by-ldc-universities/

8. Questionnaire to the participants (key strategic questions to support co-creation)
9. Concluding remarks and follow up steps (ESORCCAS Chairholder)
10. Meeting Closing (National Director for Climate Change as Representative of the Minister of Land and Environment).

4. Participation and key notes from the engagement meeting

4.1. Participation

Table 1. Participation in the high-level engagement workshop on August 28, 2023, at the Radisson Blu Hotel in Maputo City, Mozambique.

Participants	Number of participants: 21 (6 Women and 15 Men)
	I. Government Entities ○ National Director for Climate Changes at Ministry of Land and Environment (MTA) ○ National Director for Science and Technology ○ Focal Point of Green Climate Fund, Ministry of Economy and Finance ○ Focal Point of Global Environmental Fund, MTA **II. Academia** ○ Rector of Eduardo Mondlane University (UEM) ○ Rector of Maputo Pedagogical University (UPM) ○ Vice-Rector for Human Resources Administration, UEM Advisor for Research and Research Project Management, UEM ○ Dean of the Faculty of Agronomy and Forest Engineering, UEM ○ Dean of the Science Faculty, UEM ○ Dean of the Regional Centre of Excellency on Agrofood Systems and Nutrition (CE-AFSN) ○ Communication and Marketing Centre (CECOMA), UEM **III. Oliver Tambo Chair** ○ Oliver Tambo Head-Chair ○ Coordinator of Work package (Wp1) of Oliver Tambo Chair ○ Coordinator of Work package (Wp2) of Oliver Tambo Chair ○ Coordinator of Work package (Wp3) of Oliver Tambo Chair ○ Oliver Tambo Chair Assistant ○ Researcher and Fellow at Oliver Tambo Chair **IV. Cooperation Partners for Development** ○ Word Bank ○ United Nations Development Program (UNDP) ○ United States Agency for International Development (USAID) **V. National and International Institutions** ○ International Union for Conservation of Nature (IUCN) **VI. Civil Society** ○ Livaningo - Forum of Non-Government Organizations for climate change

4.2. Learnings from high-level engagement in Mozambique

4.2.1. What new adaptation policies, strategies or implementation programs are being developed in your department or organization?

This high-level engagement helped to ascertain the current work carried out by the high-level entities and their projections regarding the policy or program component on climate change adaptation in Mozambique. All the actors engaged for this dialogue process participate in or have adaptation policy actions or programs underway and planned in their institutional agenda.

A. New adaptation policies or programs underway

- Among the several Directorates that exist in the **Ministry of Land and Environment (MTA),** the National Directorate for Climate Change (DMC) has the mandate to ensure the integration of Climate Change into strategic policies, plans and development programs, as well as to promote and cooperate in systematic observations, scientific research and technology transfers related to climate change in Mozambique (Government of Mozambique, Ministerial Diploma no. 44/2020 of August 18). The MTA has been coordinating the process of drawing up the updated Nationally Determined Contribution (NDC) for the 2020-2025 period and Mozambique's National Adaptation Plan (NAP), where it has already submitted the NDC to the United Nations Framework Convention on Climate Change (UNFCCC) in November 2021 and the NAP this year (2023). One of the strategic objectives of these two instruments is to promote research as a mechanism for creating research space dedicated to supporting the implementation of adaptation actions. Currently (September 2023) the MTA through the National Directorate for the Environment (DINAB) and DMC is conducting a process of revision of the Policy and Law of the Environment approved by Decree No. 20/97 of October 1st. Regarding programs, the MTA has already implemented or coordinated dozens of initiatives related to adaptation. It is currently coordinating the MERCIM Program (Improving Climate Resilience in Mozambique) launched in 2020, which aims to: (i) strengthen the capacity of local governments through capacity building and technical assistance for their better performance and participation in planning, budgeting and other local governance processes, and (ii) facilitate the preparation of Local Adaptation Plans (PLA) which have an impact at district level. These instruments have as part of their objectives the creation of resilience, including the reduction of climate risks in communities and the promotion of sustainable development through their integration into the local planning and budgeting process of adaptation actions. In addition, the MTA has so far received around 53.3 million dollars from the Global Environment Facility (GEF) and 16.7 million dollars from the Least Developed Countries Adaptation Fund to finance 30 projects related to climate change adaptation, biodiversity management and reducing land degradation.
- The **Ministry of Economy and Finance (MEF)** is in the process of creating a Climate Finance Unit for the country with the primary objective of leading the process of mobilizing climate resources/funds that will support the policies, strategies and

regulations for achieving a carbon-neutral development path. The MEF has also set up a multisectoral task force made up of the MEF, MTA, Ministry of Agriculture and Rural Development (MADER), Ministry of the Sea, Inland Waters and Fisheries (MIMAIP), Ministry of Mineral Resources and Energy (MIREME), Ministry of Public Works, Housing and Water Resources (MOPHRH), Ministry of Transport and Communications (MTC), and the Ministry of Industry and Commerce (MIC) with the primary aim of improving collaboration on carbon markets in Mozambique. In addition, as part of this process, in 2021 the process of drawing up the Carbon Markets Activation Plan in Mozambique was launched. Through this program, the potential of the country's carbon markets is being explored and opportunities for attracting investment to reduce greenhouse gas emissions are being assessed. The Carbon Markets Activation Plan aims to provide comprehensive technical assistance to improve the capacity of Mozambique's government institutions, regulatory bodies and private sector stakeholders. This assistance will enable them to understand, implement and participate effectively in carbon markets. The MEF is the focal point of the Green Climate Fund (GCF), a financing mechanism intended to boost and promote resilient, green, sustainable and low-carbon growth.

- Since 2021, the **Ministry of Science, Technology and Higher Education (MCTES**) has begun a process of revising the Science and Technology Policy that has been in force since 2003. The new policy proposal created a pillar called "Promoting Science for the Transformation of Society". This new pillar incorporates strategic actions related to Climate Change (CC), which include actions such as promoting the transfer of clean and CC-resilient technologies. Another strategic intervention by MCTES, together with the Ministry of the Sea, Inland Waters and Fisheries (MIMAIP), to tackle climate change is related to the development of a 10-year Action Plan aimed at drawing up the Blue Economy Development Strategy (EDEA). In this strategic instrument, one of the actions established was the creation of a Platform for the Registration of Research and Development Activities and Knowledge, which will make it possible to register innovations and collect information on ongoing research and innovations and possible needs for partnerships, funding and researchers. In addition, the MCTES is in the process of creating the Mozambique Scientific Repository, whose aim is to capture all the knowledge produced in Mozambique, but which is not only related to Climate Change.
- The **Ministry of State Administration and Public Service (MAEFP)** is currently coordinating the process of formulating the National Urbanization Policy. This process involves a multisectoral team (MAEFP, MTA, MEF, MOPHRH, MTC, MADER, MIC, MINED, MCTES and UEM) and its primary objective is to guide the inclusive, sustainable and resilient development of our country's urban spaces in the context of the current climate change challenges.
- The **civil society platform for climate change** has also contributed to the formulation of new adaptation policies or programs, so much so that during the process of drawing up the National Adaptation Plan, it joined forces with academia and the MTA to conduct a survey on the main entry points to support the formulation of the NAP, a contribution that was valued and reflected in the NAP. In addition, the platform has developed a survey called "Helping Adaptation Policies". On the other hand, it has held annual national seminars to discuss various issues surrounding climate change, including policy issues,

policy monitoring, participation and the inclusion of various actors in the drafting of various climate change instruments in the country;

- **Development agencies and national and international institutions** operating in Mozambique have contributed to this component of adaptation policies and programs. For example, the UNDP is in the process of finalizing the design of a 5-year program called "Scaling up Local Adaptation and Climate Risk Informed Planning for Resilient Livelihoods", which aims to ensure the implementation of Local Adaptation Plans in 5 districts of Mozambique. UNDP has also been playing a crucial role in supporting the design of disaster management and climate change instruments in Mozambique, such as the NAP and NDC. USAID is currently in the process of helping the Mozambican government to establish the legal/policy framework for Carbon Markets in Mozambique.

B. Planned Policies or Programs

- The DMC (MTA) plans to begin the process of reviewing the current Strategy for Adaptation and Mitigation of Climate Change prepared by the Eduardo Mondlane University, where it hopes to once again rely on the collaboration of this same academic body to review the political instrument.
- USAID is in the process of refining a new program/approach that aims to include climate change themes at the secondary and primary levels to ensure that this knowledge is known by the younger generation to guarantee the consolidation of climate change awareness from an early age in a context of high climate vulnerability in which Mozambique is located in.

4.2.2. What role do you as an individual play in the development of these new adaptation policies or programs?

The representatives of the different state institutions, cooperation agencies, civil society and national and international institutions who attended the dialogue demonstrated that they were contributing in various ways as individuals to the process of drawing up adaptation policies or programs. Their contributions as individuals include:

- Participation in debates on climate change adaptation policies and programs;
- Involvement in the process of socializing and approval of adaptation policies and programs;
- Conducting studies that assist the process of drafting and reviewing climate change and environment policies in Mozambique;
- Involvement in research and the implementation of projects aimed at bringing adaptation and resilience solutions to local communities in the context of climate change;
- Involvement in the process of introducing and/or teaching about adaptation in undergraduate and postgraduate curricula;
- Participation in agreements with project implementers for applied research.

4.2.3. What engagements or partnerships with local universities, researchers or other local knowledge holders have been made as part of your new policy or program?

Engagements or partnerships made in Mozambique with holders of different types of knowledge (scientific, local and indigenous) include:

- The drafting and implementation of Local Adaptation Plans through which local stakeholders (including local communities) identify their capacities and vulnerabilities to cope with climate change and define adaptation actions that contribute to reducing its impacts, increase their adaptive capacity, and jointly identifying the main local challenges and opportunities for building resilience and possible actions to respond to the negative impacts of climate change;
- Establishing as part of the goals of the new policy still being drafted on the Blue Economy Development Strategy (EDEA) the need to: (i) create a specific fund to promote research; (ii) update legal instruments based on scientific evidence and adaptive management; (iii) promote public-private partnerships and local communities to design programs that ensure the planning, management, monitoring and evaluation of interventions aimed at protecting and conserving natural resources;
- Creation of a pillar (Pillar I) in the strategic document called Structural Transformation of the Economy in the National Development Strategy 2023-2043, coordinated by the Ministry of Economy and Finance. Part of the pillar's objectives are to encourage the formation of partnerships between companies, universities and research centres to boost innovation and the development of new technologies.

4.2.4. How could researchers and local universities better support your work, policies and programs? The entities see the value of local research in their work?

Local researchers and universities can better support new adaptation policies or programs by:

- Carrying out research related to adaptation issues, such as research into carbon markets and climate finance. The participation of researchers and universities in these themes would help to assess complex issues (current challenges in Mozambique) related to the production of evidence of emission reductions and cost-benefit analysis of carbon projects;
- The participation of local researchers and universities in dialog and discussion platforms for the exchange of experiences, interaction with various players and the presentation of proposals for solutions to climate problems and adaptation to climate change;
- The creation of partnerships between universities and researchers to align common interests, share resources and stimulate research and action on adaptation;
- Participation of universities and local researchers in the process of monitoring and collecting data to verify and evaluate the progress of strategic instruments and programs for adapting to climate change (e.g. Local Adaptation Plans), where there are currently many challenges in monitoring and evaluating the progress of their implementation;
- Supporting the process of mapping and creating a repository of various initiatives that have been developed and implemented in Mozambique by various government actors, cooperation partners, the private sector and non-governmental organizations. This

exercise would make it easier to identify and recognize existing gaps, avoid duplication of effort in implementing actions and help identify the proposals for actions needed to improve new adaptation policies and programmes;

- Creation of capacity-building agreements for local governments at the level of (districts, localities and administrative posts) by local researchers and universities;
- Decentralization of research leadership to the region, province and district level to allow educational and research institutions to take the lead in researching the climate and adaptation issues affecting their area of jurisdiction;

The different stakeholders engaged in high-level dialogue see and recognize the value of local research in their work or mandate, which is why many government entities and others seek to develop adaptation programmes that focus on specific contexts. One example is the Local Adaptation Plans, which focus on the local scale (district) to implement adaptation actions. The various speakers highlighted the fact that they place great value on the production of knowledge in all the programs they have implemented, although there is still a major challenge related to the publication of existing studies or actions, and therefore recommended the need to create a platform for sharing information and disseminating research opportunities on adaptation to climate change.

4.2.5. Do you have the capacity to play a role in getting local adaptation research to influence or inform policy or practice?

Representatives of entities engaged in high-level dialogue have certainly emphasised that the institutions in which they work have the capacity to make research action to inform or influence adaptation policies or practices. For example, the MTA reaffirmed that to define and review its policies or practices is based on the results or lessons of research conducted on the ground. The MTCS has the capacity and great responsibility to build capacity and influence academia and institutions of higher education in conjunction with civil society organizations from which it has exercised to create human capital capacity for the creation and implementation of knowledge. In 2018, the World Fund for Nature (WWF) in collaboration with UEM conducted a study on Forest Management, a study by which it influenced the revision of Mozambique's Forestry Law and Policy. Representatives of the institutions unanimously stated that research in Mozambique has helped to combine synergies with cooperation partners that help in the process of drafting, reviewing and implementing climate change adaptation policies.

4.2.6. How can local researchers and universities be involved in different activities that feed or support adaptation action research?

Necessary actions to ensure the involvement of local researchers and universities in the different activities that feed or support adaptation action research include:

- Integration of researchers and universities in the process of development, socialization and policy making;
- The integration of research-action into the national education system through the National Institute for the Development of Education as the institution responsible for the preparation of education programmes;

- Ensure robust funding schemes to ensure research-action because at the moment there are funding challenges for effective research-action;
- The establishment of partnerships between academic and governmental institutions to improve the field of action and to create more comprehensive approaches and better practices to tackle climate change in specific contexts;
- Ensure that the results (good practices, lessons learned) of research-action are put into practice because often they are only documented and not implemented;
- Integration of researchers conducting research-action on adaptation in the multisectoral and interdisciplinary National Technical Scientific Commission that supports the government in climate change issues so that action research has more scope to influence policies;
- The inclusion of a research-action package at the time of preparation of adaptation projects to avoid that there is no funding to support research-action despite its relevance in supporting the process of monitoring and evaluating the results and impact of adaptation projects;
- The creation of a repository with proposal information, research needs and/or priorities and the justification for its need;
- Creation of a memorandum of understanding with various entities to ensure collaboration in the design of adaptation projects. These MU would help to create a mutualistic relationship between academia and organisations with activities/projects on the ground.

4.2.7. Do you see value in taking part in an action-oriented research program for LDCs, either individually or with your department /organization?

Those involved in the dialogue process reaffirmed the relevance of their integration into research-action programmes in the least developed countries by the fact that research action can contribute to identifying solutions and opportunities that can assist the development of the least developed countries. Furthermore, research-action allows local entities including communities to participate, test and learn new experiences that can help improve their involvement and adoption of successful practices. As a way of recognizing the contribution of this nature of research in LDC countries, in 2010 at the Eduardo Mondlane University Faculty of Education, an Environmental Education Club was established to promote environmental education practices, encourage and promote solutions and best practices. (actions, habits and behaviours) innovative and alternative to the country's environmental problems as well as aiming to promote practices of sustainable use of natural resources focusing on the local level. Moreover, the Faculty of Education conducted action research in collaboration with other 2 African universities, notably Kazulu Natal University (South Africa), Nairobi University (Kenya), to evaluate the strategies that communities adopt to deal with climate events that plague African cities such as floods and erosion.

4.2.8. In particular, are you interested in any (can be multiple) of these solutions?

Table 2: The interest solutions of the stakeholders engaged.

Government entities
○ Multi sector capacity building ○ A data repositor ○ A transdisciplinary Centre of Excellence ○ Participating in a climate change research advisory committee at university level or a project specific committee
Cooperation Partners for Development
○ Multi sector capacity building ○ A multisectoral advisory platform
National and International Institutions
○ A data repositor ○ A multisectoral advisory platform
Academia
○ Multi sector capacity building ○ A transdisciplinary Centre of Excellence ○ Participating in a climate change research advisory committee at university level or a project specific committee ○ Participating in research proposal development and co-supervising students
Private sector
○ Multi sector capacity building ○ A data repositor ○ A transdisciplinary Centre of Excellence

4.2.9. Do you have examples or ideas for other innovative solutions in getting local research into adaptation efforts?

The following have been proposed as part of other innovative solutions for integrating local universities into climate change adaptation efforts in Mozambique:

- Ensure the socialisation of national and local adaptation plans in all universities in the country as a way of obtaining contributions and with more realistic ideas for the different national contexts;
- Jointly prepare proposals for projects or programmes integrating research and knowledge production relating to adaptation to climate change;
- Ensure a systematic participation of universities in work/discussions-meetings on ongoing initiatives as way of using the existing research/knowledge to contribute on specific adaptation topics;
- Universities may invite organisations/partners to study outreach meetings wherever possible, as a way of sharing the work produced so that adaptation projects or programmes can be reflected;
- The creation of adaptation laboratories (where researchers) would have more space to develop and test practical solutions to country-specific challenges;

- The creation of climate change adaptation clubs to serve as a link with communities.

5. Recommendations

Besides this process being useful for improving the contribution and effectiveness of national and local governments in the formulation of adaptation policies, programmes, plans and strategies is very essential to enable the identification of practical solutions or useful adaptation solutions based on science in combination with local knowledge that are more effective for specific contexts of vulnerability, and inexpensive to alleviate the challenge of lack of resources for the implementation of adaptive actions. For the Mozambican context, the following are some essential recommendations for a better contribution to this process:

- To ensure that sectoral policies and programmes look at climate change in a cross-cutting way to improve its effectiveness because climate change is of a cross-cutting nature;
- A repository should be created of all actions carried out in the adaptation research-action to produce effective and coordinated solutions as well as to avoid duplication of effort during the implementation of adaptation actions. Additionally, the repository will help improve the quality of country's climate change instruments such as national communications and transparency reports);
- This nature of research should include the early education component of children to improve the response of local communities to climate disasters;
- The academy should play an external auditor role of the government and other actors in the field of adaptation to help critically, impartially and transparently analyse the work carried out by these entities;
- The country must ensure the mobilization of financial resources to support medium- and long-term research-action actions to find solutions to concrete problems that plague Mozambican territory.

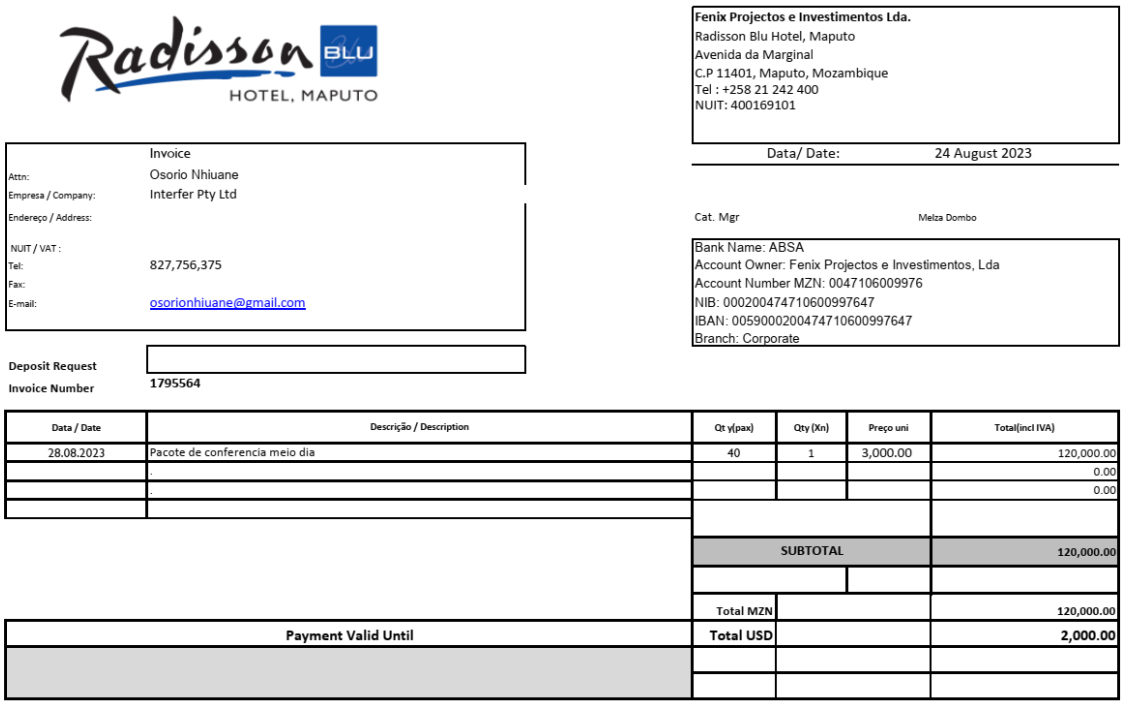
6. Suggestions for regional online workshop

The different participants of the engagement meeting have made an active, open and clear contribution to their views on this co-creation process. And they have repeatedly emphasized that they commend this initiative to prepare a virtual meeting because it serves as an opportunity to jointly discuss the challenges and steps needed to ensure that research-action on climate change has its space and contribution in the various phases of managing climate challenges, from the formulation of policies or programmes to their implementation. In this sense, in the section of closing remarks and the definition of next steps, participants showed their interest in attending or be represented at the regional online workshop under preparation. In addition to showing willingness to participate in the seminar they highlighted that for the current trend of the world globalisation, virtual meetings should be promoted to discuss in real-time and share experiences on cross-cutting issues such as climate change that have much impact on the development and well-being dynamics of societies. It was also mentioned that the virtual meetings allow the representation of more contributors and of various corners of the continent and of the world using little resources in relation to the on-

site-workshop, fact that allow developing countries such Mozambique to save resources that are usually scarce, being useful for the implementation of practical actions.

7. Cost

The engagement meeting cost made in model of joint short-workshop held in the Radisson Blu Hotel in Maputo city costs a total of US $2000 (See the Figure 1).



Radisson BLU HOTEL, MAPUTO

Fenix Projectos e Investimentos Lda.
Radisson Blu Hotel, Maputo
Avenida da Marginal
C.P 11401, Maputo, Mozambique
Tel : +258 21 242 400
NUIT: 400169101

Data/ Date: 24 August 2023

Cat. Mgr Melza Dombo

Bank Name: ABSA
Account Owner: Fenix Projectos e Investimentos, Lda
Account Number MZN: 0047106009976
NIB: 000200474710600997647
IBAN: 005900020047471060099764 7
Branch: Corporate

Invoice
Attn: Osorio Nhiuane
Empresa / Company: Interfer Pty Ltd
Endereço / Address:
NUIT / VAT :
Tel: 827,756,375
Fax:
E-mail: osorionhiuane@gmail.com

Deposit Request
Invoice Number 1795564

Data / Date	Descrição / Description	Qt y(pax)	Qty (Xn)	Preço uni	Total(incl IVA)
28.08.2023	Pacote de conferencia meio dia	40	1	3,000.00	120,000.00
	.				0.00
	.				0.00
		SUBTOTAL			**120,000.00**
		Total MZN			**120,000.00**
Payment Valid Until		**Total USD**			**2,000.00**

Figure 1: The invoice for the High-level science engagement meeting.

8. ANNEXES

Annex A. Attendance list of the High-level meeting held in Mozambique.

Universidade Eduardo Mondlane | Oliver & Adelaide Tambo Foundation | FNI Fundo Nacional de Investigação | NRF National Research Foundation | IDRC · CRDI Canada | Adaptation Research Alliance

Lista de Presença da Reunião de Alto Nível para Promover e Estimular a Pesquisa-acção sobre Mudanças Adaptação às Mudanças Climáticas/ *Attendance List of the High-Level Meeting to Promote and Stimulate Action Research on Climate Change Adaptation*

Maputo, 28 de Agosto de 2023

Ordem/ *Order*	Nome/ *Name*	Género/ *Gender*	Instituição/*Institution*	Função/*Role*	Email	Contacto/*Phone Number*	Assinatura/ *Signature*
1	Jadwiga Massinga	F	MTA/DMC	DN	jadwiga.massinga@gmail.com	843211660	
2	Manuel G. [illegible]	M	UEM	Reitor	[illegible]@uem.mz	—	
3	Jorge Ferrão	M.	UPM	Reitor	[illegible]		
4	Joel das Neves Tembe	M	UEM	Vice Reitor	joel.neves@uem.mz	823090960	
5	Alberto Mavume	M	UEM (FC)	Professor	amavume@yahoo.c[illegible]	828492[illegible]	
6	Daud Jamal	M	UEM (FC)	Director	daud.jamal@uem.mz	826985880	
7	Mauricio Xerinda	M	IUCN	Director	mauricio.xerinda@iucn.org	844787689	
8	João Fernando	M	USAID	Especialista	jfernando@usaid.gov	840197988	
9	Fernando Tavares	M	MTA	Técnico	tavarescanimo@yahoo.com	848139711	
10	Zinêncio A. Sitoe	M	PROSCMC/LIVANINGO	Of. Advocacia	zsithole@gmail.com	826064384	

Lista de Presença da Reunião de Alto Nível para Promover e Estimular a Pesquisa-acção sobre Mudanças Adaptação às Mudanças Climáticas/ *Attendance List of the High-Level Meeting to Promote and Stimulate Action Research on Climate Change Adaptation*

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Ordem/ *Order*	Nome/ *Name*	Género/ *Gender*	Instituição/*Institution*	Função/*Role*	Email	Contacto/*Phone Number*	Assinatura/ *Signature*
01	Jaime Muavale	M	UEM	AR	Jaimemuavale@gmail.com	847892034	[signature]
02	Natasha Ribeiro	F	UEM	Docente	joluci2002@yahoo.com	826341255	[signature]
03	ROGERIO CHIULE	M	UEM	Dir	chiulele.rogerio@...	869551721	[signature]
04	Eugenia Cossa	F	MCTES/DNCTI	Dir. Nacional	eugenia.cossa@mctes.gov.mz	824686060	[signature]
05	ERNESTO UETIMANE	M	UEM-FAEF	Director		844824487	[signature]
06	INACIO MAPOSSE	M	UEM-FAEF	Docente	icmaposse@gmail.com	823154190	[signature]
07	Nícia Givá	F	UEM - FAEF	Docente	3ngiva@gmail.com	824885230	[signature]
08	Eloise Gomes	F	CECOMC-UEM	Docente	izzi.gomes@gmail.com	843885044	[signature]
09	Anacleta chiangua	f	MEF-DNTA-NDA	Tecnica	anacleta.chiangua@gmail.com	825988680	[signature]
10	Ivan Remane	M	BANCO MUNDIAL	Esp. NRM	IRemane@worldbank.org	820873260	[signature]
11	HELDER PAULO	M	PNUD	GESTOR	helder.paulo@undp.org	840712571	[signature]

Annex B. Pictures of the High-level meeting held in Mozambique

Annex C. List of the invitees for the High-level engagement meeting.

ORD.	REPRESENTATIVE	AFFILIATION
I. Government entities		
1	Ivete Joaquim Maibaze	Minister of Land and Environment
2	Luísa Celma Meque	President of National Institute for Disaster Risk Management
3	Jadwiga Massinga	National Director for Climate Change
4	Eugénia Cossa	National Director for Science and Technology
5	Momade Arnaldo Juízo	Chairman of the Committee on Agriculture, Economy and the Environment, of the Assembly of the Republic of Mozambique
6	Albano Manjate	Focal Point of Green Climate Fund
7	Eduardo Baixo	Focal Point of Global Environmental Fund
II. Academia		
9	Manuel Guilherme Júnior	Rector of Eduardo Mondlane University
10	Jorge Ferrão	Rector of Maputo Pedagogical University
11	Joel Maurício Tembe	Vice-Rector for Human Resources Administration, UEM
12	Amália Alexandre Uamusse	Academic Vice-Rector, UEM
13	Natasha Ribeiro	Advisor for Research and Research Project Management, UEM
14	Ernesto Uetimane Júnior	Dean of the Faculty of Agronomy and Forest Engineering, UEM
15	Daúd Liace Jamal	Dean of the Science Faculty, UEM
16	Luís Artur	Representative of the Climate Change Technical Commission
17	Evanise Gomes	Lecturer of Communication and Marketing Centre (CECOMA) -UEM
III. Oliver Tambo Chair		
	Almeida Sitoe	Oliver Tambo Head-Chair
18	Alberto Mavume	Coordinator of *Work package* (*Wp*) 1of Oliver Tambo Chair
19	Nicía Givá	Coordinator of *Wp2 of Oliver Tambo Chair*
20	Inácio Maposse	Coordinator of *Wp3* of Oliver Tambo Chair
21	Laurene Pinga	Oliver Tambo Chair Assistant
22	Osório Nhiuane	Research and Fellow at Oliver Tambo Chair
IV. Cooperation Partners for Development		
23	Idah Pswarayi-Riddihough	Country Director, World Bank
24	Antonio Molpeceres	United Nations Development Programme
25	César Tique	African Development Bank
26	Akila Munir	Belgian Cooperation for Development (ENABEL)
27	Pernilla Sjöquist Rafiqui	Embassy of Sweden (ASDI)
28	Ulrika Blom	Norwegian Refugee Council, Mozambique Office
29	Antonino Maggiore	Ambassador of the European Union
30	Gianni Bardini	Ambassador of the Italy in Mozambique
31	Anna-Kaisa Heikkinen	Ambassador of the Finland in Mozambique
32	Ruairo de Burca	Ambassador of the Ireland in Mozambique
33	Eiji Hashimoo	Ambassador of the Japan in Mozambique
34	Kim Heung-soo	Ambassador of the South Correia in Mozambique
35	João Carlos	Senior Agribusiness and Finance Advisor at USA Embassy in Mozambique.

V.	**National and International Institutions**	
36	Luis Bernardo Honwana	Executive Director at Foundation for the Conservation of Biodiversity (BIOFUND)
37	Solani Mhango	World Wide Fund for Nature (WWF)
38	Maurício Xerinda	International Union for Conservation of Nature (IUCN)
VI. Civil Society		
39	Sheila Mahomed Rafi	Livaningo - Forum of NGO's for climate change
VII. Private Sector		
40	Raúfo Ustá	Chair at Confederation of Economic Associations

In-Country Engagement on 'Action-Oriented Adaptation Research Program'

5th September 2023, Six Seasons Hotel, Dhaka

Organized by: Tahmina Sultana,

Lecturer, Department of Environmental Science and Management,
Independent University Bangladesh

Total participant:19 People

Gender

Males: 7
Females: 12

Sectors

National government: 1

Local government: No

Funders: 3

Multilateral organizations or INGOs: 5

Local NGOs or civil society: 5

Business: 1

Academia: 4

Youth: 2

Participating Organizations:

Save the Children
The Hunger Project
GIZ
Christian Commission for Development in Bangladesh (CCDB)
WaterAid Bangladesh
International Centre for Climate Change and Development (ICCCAD)
Eco-network
Department of Agricultural Extension (DAE)
Centre for Climate Change and Environmental Research (C3ER)
Independent University Bangladesh (IUB)

Learnings from your engagement

Professor Mizan R. Khan, Deputy Director from ICCCAD and Technical Lead of LUCCC has opened the session by discussing adaptation being the prime agenda in Bangladesh and how adaptation can be planned or anticipatory. He further discussed why it is important to develop local-level adaptation strategies based on evidence generated from ground data and gave an introduction of ARA.

 What new adaptation policies, strategies, and implementation programs are being planned by your organization?

- Supporting the local government to develop local level adaptation plan
- Capacitating communities to understand their needs (Save the Children)
- Conducting thorough feasibility assessments prior to project implementation (WaterAid)
- Supporting to access finance for climate change projects
- Online certification courses on various related topics including climate finance
- Identifying gaps and needs at the grass-root level through research (ICCCAD)
- Developing a Climate Change Workforce in collaboration with research institutes (CCDB)
- Creating a community-based climate activist youth group (Eco-network)

 Could these be made more effective with the support of locally led research? If yes, how?

All participants valued action-oriented research programmes and believed adaptation policies and strategies could be made more effective through them. Research could be useful for:

- Identifying gaps within policies
- Ensuring accountability for policy implementation
- Advocacy and mobilizing of policies
- Setting up knowledge-sharing platforms

 Do you or your organization have the capacity to influence policies and practices based on adaptation research?

- Yes, our organizations have the capacity to influence policies (C3ER and ICCCAD)
- Can influence project design using the outcomes from local adaptation research (GIZ and WaterAid)

- Which of these solutions are you interested in and why?

- Participating in a climate change research advisory committee at the university level or a project-specific committee (IUB, C3ER, DAE, WaterAid and CCDB)

- Participating in research proposal development and co-supervising students (IUB, C3ER, DAE, The Hunger Project, WaterAid and CCDB)

- Multi-sector capacity building (IUB, C3ER, Eco-network, GIZ, WaterAid and ICCCAD)

(The impacts of climate change are multifaceted; hence it would require multiple sectors and people at multiple levels to work together in order to produce effective outcomes)

- A data repository (DAE, Eco-network, GIZ and CCDB)

(A data repository is always useful for both research and projects)

- A transdisciplinary Centre of Excellence (The Hunger Project and WaterAid)

- **Do you have examples or ideas for other innovative solutions in getting local research into adaptation efforts?**

- Pre-feasibility studies to identify project necessities (WaterAid)

- 360 accountability of all projects and stakeholders (The Hunger Project)

- Setting up community feedback mechanisms (ICCCAD)

- Organizations collaborating and coordinating to effectively use research findings to tackle issues together

Examples from around the world:

- One of the islands in Indonesia which was a landfill site was transformed by locally led adaptation when the government decided to provide funding for the locals to clean up the island, modify all the houses so they can be rented out as Airbnb, and plant mangroves to protect the shoreline and biodiversity of the island. Not only did the natural beauty of the island return it also started flourishing economically.

- Africa has started to incorporate risk insurance as part of adaptation

- Communities in the Philippines have been introduced to and have been building climate-resilient homes

- **Were there any other outcomes (besides learning)? e.g. commitments made by participants, follow-up meetings planned, etc?**

All of them are interested in future collaboration and very much interested in joining the online workshop on 18th September.

- **Your reflections**

a) Was this engagement useful to you and to those who participated in it? Please provide.

honest feedback, it can be critical!

b) Do you think that this form of distributed responsibility is valuable in a co-creation

process? In other words, do you think that co-creation processes should consider.

giving some responsibility for hosting engagements to others outside of the core

organizations?

First, I would like to thank Interfere for choosing me to do this kind of in-country engagement. I have tried to contact all the participants, but some of them could not join the program due to their other work. But they did not inform me. I understood that it is really very difficult to arrange a big program with many high-level stakeholders. The people who joined the program have given their honest feedback and all of them were very much helpful. Gathering all the people is difficult otherwise discussing with the participants was truly an amazing experience for me. This kind of distributed responsibility is helpful. I must say the team of Interfere was very active at every point.

- **Suggestions for regional online workshop**

a) Do you have any suggestions for the format or focus of the planned online workshop?

I think it is very important to know the topic and plan of the workshop before joining the online workshop. High-level stakeholders have many meetings and responsibilities. If they know the main theme or schedule before the workshop, then it will be easy for them to manage time according to their preference.

b) Do you feel that your participants will join the event?

During the program, they show their interest, and they want to know more about ARA and the creation process. I assume at least 60 percent of people would join from my in-country engagement program.

c) Do you feel that your participants will feel able to share their experiences from your engagement openly, or are there any politics that might limit their involvement?

Yes, I think so. They all share their thoughts in my program.

- **Costs**

a) What did your engagement cost in total?

Total Cost: BDT 108751.55

b) Was the funding allocated adequate for this scale of engagement?

Yes, the allocated fund was enough for this kind of small group discussion.

Adaptation Research Alliance (ARA)

Co-Creation of a New Action-Oriented Research Programme:

LDC Universities Contribute to and Support National Adaptation Priorities

High-level engagements in Ethiopia

Inter Luxury International Hotel

Addis Ababa

August 29, 2023

Event registration:

Name of event: ARA co-creation process: High-level engagements in EthiopiaVenue: Inter Luxury International Hotel, Kazanchse, Addis Ababa

Date: 29 August 2023

A total of twelve participants were invited for the workshop out of which only six participants were able to attend the workshop (50% attendance). This attendance did not include people interviewed on phone and face to face.

S/N	Name	Email	Organization	Country	Gender
1	Dr. Tena Alamirew	Alamirew2004@yahoo.com	Water and Land Resource Centre	Ethiopia	M
2	Prof. Teketel Yohannes	Teketel.yohannes@eas.et.org	CEO, Ethiopian Academy of Science	Ethiopia	M
3	Dr. Tadesse W/Mariam	twgole@ecff.org.et or twgole@gmail.com	Director, Environment and Coffee Forest Forum	Ethiopia	M
4	Mrs. Ayantu Girma	ayantug@hoarec.org	Horn of Africa Regional Environment Centre and Network	Ethiopia	F
5	Dr. Abebe Damte	Abebed32002@yahoo.co.uk	Policy and Research Institutes / Head Environment and Climate Research Centre (government research think tank)	Ethiopia	M
6	Mr. Debiso Dede	debisodede@gmail.com	Rift Valley Lake Basin Authority	Ethiopia	M
7	Dr. Adane Kebede	adanek@hoarec.org	Horn of Africa Regional Environment Centre and Network	Ethiopia	M
8	Dr. Meron Tekalign	Meron.tekalign@aau.edu.com	Horn of Africa Regional Environment Centre and Network	Ethiopia	F
9	Dr. Adenew Taffa	amanuelamen@gmail.com	Higher Education Consultant	Ethiopia	M

Event registration:

Name of event: ARA co-creation process: High-level engagements in Ethiopia
Venue: Inter Luxury International Hotel, Kazanchse, Addis Ababa
Date: 29 August 2023

S/N	Name	Email	Organization	Country	Gender
1	Tena Alamirew	Alamirew2004@yahoo.com	Water and Land Resource center(EIAR)		M
2	Teketel Yohannes	teketel.yohannes@eas-eth.org	EAS		
3	Tadesse Woldemariam	twgole@ecff.org.et	ECFF	Ethiopia	
4	Ayantu Girma	ayantu9@hoarec.org	HoAREC	Ethiopia	
5	Abebe Demte Berene	abebed2002@yahoo.co.uk	PSI/ECRC	Eth	
6	Debiso Dede	debisodede@gmail.com	RULBAD	Ethiopia	
7	Adenew Taffa	adenek@hoarec.org	HOA-RECON-AAU	Ethiopia	
8	Adane Kebede	meron.tekalign@aau.edu.et	HoA-Rech-AAU	Ethiopia	
9	Meron Tekalign				
10					
11					
12					

Figure 1: Lists of Participants

Following the registration of the participants, a welcoming and an opening speech has been delivered by Dr. Adenew Taffa. The full content of the opening speech is as follows:

Opening Speech

Good morning, everyone!

I would like to extend a warm welcome to all of you to this high-level stakeholder engagement workshop, organized by the Adaptation Research Alliance (ARA) and the Horn of Africa Regional Environment Center & Network (HoA-REC/N) at AAU.

As stated in the invitation letter, the purpose of this workshop is to collaboratively develop a new action-oriented research program that empowers universities in Least Developed Countries to contribute and support their respective national climate change adaptation priorities.

Climate change is an urgent concern in Least Developed Countries, and it is crucial that we work together to address its impacts. By bringing universities, government agencies, civil society, and various stakeholders together, we can craft research initiatives that prioritize community voices, bridge knowledge gaps, and provide locally generated evidence to inform policy-making and practical implementation. This is precisely why we have gathered representatives from different institutions and organizations, each bringing diverse and unique experiences in climate change adaptation.

We are optimistic that your presence and active participation will help us identify the gaps and challenges in adaptation research specific to Ethiopia. The insights gained from this workshop will serve as valuable input towards formulating a new strategy and policy framework that effectively addresses the existing issues. To facilitate our discussions, we have prepared guiding questions outlined in the provided timetable. We will begin with a presentations followed by a welcoming speech that will provide context and set the tone for our fruitful discussions.

Once again, welcome to this important event. Let's work collaboratively to advance climate change adaptation efforts and make a meaningful impact on our communities and the environment.

Looking forward to you active and constructive participation on this workshop!

Thank you.

Figure 2: Opening speech (Dr. Adenew Taffa)

After finalizing the welcoming speech, Dr. Adenew introduced the agendas of the workshop one by one. The full agendas of the workshop are shown below:

Table 1: Workshop schedule and agenda

Time	Activities	*Responsible person	Facilitator
09:00-9:30	Arrival, tea / coffee/registration	All participants	
09:30-9:45	Presentation introducing a general gap in local adaptation research making its way to national policy and practice	Dr. Adane Kebede/ Dr. Meron Tekalign	Dr. Adenew Taffa
9:45-10:00	Introducing ARA Co-creation process and the purpose of the in-country engagements (video)	Leigh Stadler African Climate and Development Initiative, UCT	Dr. Adenew Taffa
10:00-10:30	Discussion in groups: What new adaptation policies or implementation programmes are planned by high level stakeholders?	Dr. Meron Tekalign,	Dr. Adenew Taffa
10:30-11:00	Report back to plenary	All participants	Dr. Adenew Taffa
11:00-11:30	Tea/coffee break	All participants	

11:30-12:30	Discussion in groups: How could local researchers and universities better support new policies /programmes? Do they see the value of local research in their work?	All participants	Dr. Adenew Taffa
12:30-1:00	Report back to plenary	All participants	Dr. Adenew Taffa
1:00-2:00	Lunch	All participants	Organizers
2:00-2:30	Discussion in groups: Do you have the capacity to play a role in getting local adaptation research to influence or inform policy or practice?	Dr. Adenew Taffa	Dr. Meron Tekalign
2:30-3:00	Feedback to plenary	All participants	Dr. Meron Tekalign
3:00-3:45	Discussion in plenary: How could participants be involved in different activities that feed in to supporting action-oriented adaptation research?	All participants	Dr. Meron Tekalign
3:45-4:15	Coffee/tea break/health break	All participants	Organizers
4:15-4:40	Recap, invitation to the next online workshop, thank you and close	Dr. Adenew Taffa	Dr. Adane Kebede

Introduction

Before the start of the workshop agenda participants were asked to make a small self-introduction about themselves; their names, institutions, positions as well as their respective expectations from the workshop. Each of the participants has made the introduction.

Presentations

Following the introduction, Dr. Adane Kebede has made a presentation introducing the basic purposes of the workshop. The presentation focused mainly on the current Ethiopian climate change policy environment, national adaptation policies of Ethiopia, the aim and purpose of Adaptation Research Alliance (ARA), and the basic guiding principles as well as questions of the workshop. The full presentation is attached as an annex of the report. Following Dr. Adane's presentation, Leigh's introductory video has been displayed to the participants so that they will have the full understanding of the purpose and aim of the workshop.

After the presentation participants were divided into two groups for discussion purpose and each group is named as group 1 and group 2. The Ethiopian policy study institutes (PSI), the Rift Valley Lakes Basin Administration Office at Ministry of Water and Energy (RVLBAO)

and the Environment and Coffee Forest Forum (ECFF) are categorized under group 1 while the water and land resource center-Addis Ababa University, the Ethiopian Academy of Science (ESA) and the Horn of Africa Regional Environment Centre and Network (HoA-REC&N-AAU) were categorized as Group 2. Then the printed discussion questions were distributed for each group.

Figure 3: Presentation by Dr. Adane

Group Discussion One

What new adaptation policies or implementation programmes are planned?

As a guide for the discussion the groups were asked to address the above question in terms of the names of the institute who got university support in developing policies, the types of the policy, the purpose and scope of the policy, and who initiated the policy. Participants were asked to make the discussion not only from their respective organization, but also from their experience of other government institutes.

Currently, the Ministry of Agriculture (MOA) initiated a policy on Rural Development and it is expected to be implemented in 2024. The policy focuses on rural development where it visions to support climate change adaption with indigenous knowledge-based research.

Figure 4a

Group 1		
Policies	**Institutes who developed the policy**	**How the policy Developed/initiated?**
Climate-Resilient Green Economy (CRGE)	Ministry of Agriculture (MoA), Ministry of Water and Energy (MoWE), and *all sectors*	*With the government institutes with little or no involvement of the research institutes and universities.*
Forest Policy	Environment and Forest Development (EFD)-former EPA	
Agricultural and Rural Development Policy	Ministry of Agriculture (MoA),	
Water Resource management policy, Energy policy	Ministry of Water and Energy (MoWE)	
Environmental policy	Environment Protection Authority (EPA)	

Figure 4b: Group one presentation

Group 2		
Policies	**Institutes who developed/assisted the policy development**	**How the policy developed?**
Water and Land Policy	*Water and Land Research Centre* *Ethiopian Academy of Science* *The Community*	*With the government institutes with the active participation of the research institutes and universities. Research institutes conducted a demand-driven action research*
Plantation and FMNR carbon financing	Horn of Africa Regional Environment Centre and Network (HoA-REC/N)	
Water Management	Horn of Africa Regional Environment Centre and Network (HoA-REC/N)	

Ethiopia has created and approved a number of national and sectorial levels of policies, strategies and programs. These are CRGE which was launched in 2011 in Durban COP meeting. CRGE further updated to include sectoral program and strategies which emphasis climate change adaptation and mitigation. The facility has two windows: technical (coordinated by the Environmental protection authority) and financial window (coordinated by ministry of Finance). The second one is nationally determined contribution (NDC) in climate action which was submitted to UNFCCC in response to Paris agreement in 2015. Ethiopia in its NDCs is set targets for mitigating the greenhouse gas emissions that cause climate change (below 1.5°C) and for adapting to climate impacts. The plans define how to reach the targets, and elaborate systems to monitor and verify progress so it stays on track. Currently, NDC is coordinated by Ministry of Plan and Development. National Adaptation Plan is another government initiative which was endorsed in 2017. The NAP was developed in response to the national demand to climate change adaption and updating the previous government adaption plan and strategies. It is programmatic, multi-sectoral and long-term planning approach. The NAP aligns climate change cantered adaptation initiatives. In addition, Growth and Transformation Plan I and II (GTP (I&II)), focusing on net emission zero/neutral and adaption strategies; Ethiopia's Programme of Adaptation on Climate Change (EPACC)-which focuses on national adaptation needs and priorities on a project-based approach toward an adaptation mainstreaming framework at the government, sectoral, and local levels-including climate education and research. According to the participants, most of the federal and sectorial polices and strategies formulated by the government with technical and financial support from the internal development collaborators. Most of the policies and strategies motivated through international agencies (bilateral and multilateral organizations).

Group Discussion Two

How could local researchers and universities better support new policies /programmes?

The local universities and research institutions participation is limited in new policies and prgrammes. Their engagement in the process of policy formulation is very limited. However, they are some engaged in policy evaluation and capacity building. For example, Horn of Africa Regional Environment Center and Network was provided capacity building to parliament members and the environmental and natural resource management standing committee members. Few universities, in some cases provide some kinds of scientific backstopping to decision makers. Furthermore universities in LDC can participate in:

- Multisectorial policy development (rather one generic adaption policy)
- Providing local capacity for Development agents
- Identify research problems on the ground
- Researches should focus on current and recent research gaps
- National Implementation plan road map should be established and researchers should help that

Figure 5: Group two presentations

S.No	Group 1	Group 2
1	Review of existing policies and strategies	Through strengthening community service and research institutes
2	Evaluation of policies and programmes	Through strengthening university (research institutes) Industry linkages and
3	Through the provision of capacity building trainings to policy makers	Through establishing a climate change forum in which different stakeholders can take part
4	Direct involvement in research	Through strengthening thematic research areas and demand driven action oriented research programme
5	Preparing discussions on policy briefs	Through research collaboration and partnership among the different sectors who work on climate change
6	Through the provision of evidence based research to policy makers	Through the engagement of relevant stakeholders throughout the research period
7	Through facilitation of policy-maker researchers engagement	

8	Through organizing local and international workshops on climate change	
9	Through awareness creation about climate change an d adaptation	

Do they see the value of local research in their work?

	Yes	Yes

Both groups see a value on the local research in the area of climate change adaptation that support government efforts in addressing climate change impacts. The participants believe that some of the researches that they know to be objective, honest, open and fair in informing policy makers. The participants have also agreed that existing researches advances knowledge in the area of clime change. However, the participants believe that most of the researches are not problem solving, not multidisciplinary, not demand driven, and lack accountability. In particular local researchers could play significant role in adaptation research with their inputs. For example, the MoA is trying to formulate a team that validates research outcomes with small scale field trials for further application.

Further research outcomes database for smooth accessibility needs to be established to use the local research value.

Group Discussion Three

Do you have the capacity to play a role in getting local adaptation research to influence or inform policy or practices?

Both group replied **"Yes"**

- The challenge in this regard is there is big communication gap, absence of common and linkage platform
- There is big capacity gap in resources and decision making as more power is on the hands of politician.

S.No	Group 1	Group 2
1	Particularly Environment and Coffee Forest Forum (ECFF) and Rift Valley Lakes Basin Administration Office (RVLBAO) indicated that their organizations have organizational culture, good governance and leadership, and organizational structure that make local adaptation research influence or inform policy makers	The HoA-REC/N has different practical experiences of influencing the local community to make adaptation for climate change. HoA-REC/N also played a role in influencing or informing policy makers about climate change based on researches
2	They also indicated they have a good networking with relevant stakeholders which could contribute in informing or influencing policy makers or the local community	Ethiopian Academy Science (ESA) has also played a role in influencing policy makers through the provision of research findings
3	They have capacity limitations in terms of human, financial, material resources and logistical arrangements	While research institutes have more influence on the policy makers, universities have more influence on the local community
4		They have capacity limitations in terms of human, financial, material resources and logistical arrangements
5		There is also limited capacity of using available resources

Plenary Discussion

How could stakeholders be involved in different activities that feed into supporting action-oriented adaptation research?

Higher level policy engagement is crucial to inform policy brief, excursion, workshops

- There should be feedback loops
- Building platforms to communicate policy makers
- Transparent organizational structure

S.No	Group 1	Group 2
1	By involving in research planning, data collection, project/programme identification, and others	By focusing on action-oriented research programmes
2	By suggesting possible areas/ideas for policy makers	Through lobbying policy makers

3	Through participation of strategic and annual plan preparation of research institutes and universities	Through provision of skilled human resources who can play a role in policy development of practices
4	Sharing of important information for local research institutes and universities	Through the provision of ideas to the local researchers, universities and policy makers
5	Through the provision of resources	Through capacity building training of community based organizations
6	Through direct participation or involvement or collaboration of research activities	Through conducting a collaborative research on the issue of climate change
7		Through the provision of financial, material and logistical support for the local researchers and universities
8		Through dissemination of periodic performance reports, including researchable challenges and problems

Figure 5 Plenary discussion

The last point discussed was about the interests of each participant regarding their roles in developing an action-oriented research programme. The summary regarding the potential interest of the participants is shown in the following table:

In particular, are you interested in any (can be multiple) of these solutions		Interested organizations
	-Multi sector capacity Building	ECFF, HoA-REC/N
	-A transdisciplinary Centre of Excellence	ECFF
	-A data repository	RVLBAO, PSI

	-A multisectoral advisory platform	ECFF, HoA-REC/N
	-Participating in Climate Change research advisory committee at university level or a project specific	ECFF, HoA-REC/N
	-Participating in research proposal development and co-supervising students	HoA-REC/N, ESA

Figure 6 Plenary discussion

Our reflections

a) Was this engagement useful to you and to those who participated in it? Please provide honest feedback, it can be critical!

As the team of organizer, we enjoyed the workshop that brings high level experts including academia, research institutions, NGOs, and sector ministries to discuss on the role of universities in least developed countries adaptation policy and action-oriented adaptation research. The workshop participants also expressed their opinion on the research and coordination gaps in adaption policy process, strategy development and intervention. It was also discussed that there is a limitation on the action-oriented adaption research. HoA-REC&N team also indicates demand driven action research programme which was designed based on the need from the partners organizations gap assessment.

b) Do you think that this form of distributed responsibility is valuable in a co-creation process? In other words, do you think that co-creation processes should

consider giving some responsibility for hosting engagements to others outside of the coreorganisations?

Yes, we observed that all the participants shown a strong interest in such co-creation process. So it is more valuable to give some responsibility and roles to host the process which can bring more experience, skill and knowledge to the alliance.

6. Suggestions for regional online workshop

a) Do you have any suggestions for the format or focus of the planned online workshop? No

b) Do you feel that your participants will join the event? Yes, according to our communication to participants and even none-participants some of them are already registered to the event.

c) Do you feel that your participants will feel able to share their experiences from your engagement openly, or are there any politics that might limit their involvement? We believe that they can share their experiences, opinion and feelings about the in-country engagement process.

7. Costs

a) What did your engagement cost in total?

A total of 520 USD for conference room, catering, refreshments was used.

Table 2: Cost Summary

S/N	Budget items	Total cost (USD)
1	Hall rent, catering, refreshment, stationary	420.00
2	Transport shuttle	100.00
	Total cost	**520.00**

Note: this cost does not include local transport and communication.

b) Was the funding allocated adequate for this scale of engagement? The allocated budget was ok but it did not include the local transport and communications costs.

8. Number of workshop participants

a. Total: 9 face to face and 4 through interview (13 participants) including ministry of plan and development, Ethiopian Forest Development, and Ministry of Agriculture
b. Gender (7male/2 female) and 3 male/1 female

Reporting Teams:

Dr. Meron Tekalign
Dr.Adane Kebede
Dr. Adenew Taffa

Framework for high-level in-country engagements in LDCs to support ARA co-creation process

Short report template

1. Please attach your proposal, attendance registers, and lists of interviewees as Appendices at the end.

See template attendance register and interviewee list at the end

2. How many people participated in your engagement process in total? i.e. add up individual calls and attendance to any events

a) Total: 35

b) Gender
Males: 24
Females: 11
Other / non-binary:

c) Sectors
National government: 6
Local government: 3
Funders:1
Multilateral organisations or INGOs:
Local NGOs or civil society: 15
Business:4
Academia:6

3. Learnings from your engagement

How did participants answer these questions?

1. What new adaptation policies, strategies or implementation programmes are being developed in your department or organisation? What role do you as an individual play in the development of these new adaptation policies or programmes?

   In Haiti, there exists a National Climate Change Adaptation Plan (NAP). The concept of this plan was first introduced on August 27, 2019. This project, funded by the "Green Climate Fund" with a total of 980 million USD, is actually designed to span from 2022 to 2030. The development process of this plan, led by the Ministry of Environment and the Ministry of Planning and External Cooperation with the support of UNDP Haiti, adopted an inclusive and participatory approach by involving stakeholders from various backgrounds.

This plan revolves around 340 key actions, among which 21 are considered as high-priority (referred to as highly strategic). These priority actions are based on:

- Climate-smart agriculture
- Irrigation infrastructure
- Integrated Water Resource Management (IWRM)
- Reforestation and agroforestry
- Watershed management
- Capacity building and disease prevention

For organizations in Haiti, the issue of climate adaptation remains relatively unfamiliar, and as civil society organizations, we are not deeply involved or aware of the concerns related to climate adaptation

2. What engagements or partnerships with local universities, researchers or other local knowledge holders have been made as part of your new policy or programme?

Engaging with local universities, researchers, and knowledge holders is essential for the successful implementation of policies and programs. Here are some common strategies:

1. Collaborative Research: Partner with local universities and research institutions to conduct collaborative research relevant to the policy or program's objectives. This can help gather data, insights, and expertise that inform decision-making.
2. Knowledge Sharing Workshops: Organize workshops, seminars, or conferences to facilitate knowledge exchange between policymakers, program managers, and local experts. This can promote a better understanding of local contexts and challenges.
3. Advisory Boards: Establish advisory boards or councils that include local experts, academics, and researchers. They can provide guidance, review policy documents, and offer recommendations based on their expertise.
4. Funding and Grants: Offer grants or funding opportunities to local researchers and universities for research projects aligned with the policy or program goals. This incentivizes local knowledge generation.
5. Data Access: Ensure that local researchers have access to relevant data and information necessary for their research. This may involve sharing government data or facilitating data collection.
6. Capacity Building: Invest in capacity-building initiatives for local researchers and institutions to enhance their ability to contribute effectively to the policy or program's objectives.
7. Community Engagement: Involve local communities and indigenous knowledge holders in the decision-making process. Their insights and traditional knowledge can be valuable in shaping policies related to environmental, cultural, or social issues.
8. Monitoring and Evaluation: Collaborate with local experts to design monitoring and evaluation frameworks for the policy or program. This ensures that the impact and outcomes are rigorously assessed.
9. Transparency and Accountability: Maintain transparency in partnerships and engage in open dialogue with local knowledge holders to build trust and ensure accountability.

3. How could researchers and local universities better support your work, policies and programmes?

Based on participants' feedback, researchers and local universities can play a crucial role in supporting the development and implementation of work, policies, and programs by offering their expertise, conducting relevant research, and promoting collaboration. Here is how researchers and local universities can better support your work, policies, and programs following the discussion:

1. Data Collection and Analysis: Researchers can assist in collecting and analyzing data related to the goals of the policy or program. This data can inform evidence-based decision-making and help measure the impact of initiatives.
2. Policy Analysis: Academics can conduct policy analyses to assess the effectiveness of existing policies, identify gaps, and recommend improvements. They can also evaluate the potential impacts of proposed policies.
3. Research Partnerships: Establish partnerships with local universities for collaborative research projects. Researchers can investigate specific issues or challenges related to your work and provide valuable insights and recommendations.
4. Expertise Sharing: Invite academic experts to conduct training sessions or workshops for your team or stakeholders. This can enhance skills and improve understanding of complex subjects.
5. Advisory Roles: Involve local universities and researchers in advisory roles where they can offer guidance and expertise throughout the development and implementation of policies and programs.
6. Community Engagement: Researchers can facilitate community engagement efforts, ensuring that the voices and needs of local communities are considered in policies and programs.
7. Evaluation and Monitoring: Collaborate with researchers to design robust evaluation and monitoring frameworks for your initiatives. This can help track progress and adjust strategies if necessary.
8. Policy Recommendations: Encourage researchers to formulate policy recommendations based on their findings. These recommendations can lead to more effective and targeted policies.
9. Resource Mobilization: Researchers can help identify potential sources of funding or grants to support your programs and initiatives.
10. Knowledge Dissemination: Local universities can serve as knowledge dissemination hubs, sharing research findings with a wider audience, including policymakers, practitioners, and the public.
11. Interdisciplinary Collaboration: Foster interdisciplinary collaboration among researchers from different fields to address complex challenges that may require a multidisciplinary approach.

12. Long-Term Partnerships: Establish long-term partnerships with local universities and researchers to ensure sustainable support and expertise over time.
13. Cultural Sensitivity: Researchers can provide insights into cultural and contextual factors that may impact the success of policies and programs, helping tailor interventions accordingly.
14. Policy Advocacy: Collaborate with local universities for advocacy efforts aimed at raising awareness of critical issues and mobilizing support for policy changes.

4. Do you see value in taking part in an action-oriented research programme for LDCs, either individually or with your department / organisation?

   Participating in an action-oriented research program for Least Developed Countries (LDCs) can hold significant value for individuals, departments, and organizations for several reasons:

   - Problem-Solving and Impact: Action-oriented research programs focus on addressing real-world challenges faced by LDCs. By participating, individuals and organizations can actively contribute to finding solutions and making a positive impact on pressing issues.

   - Knowledge Generation: Such programs often lead to the generation of new knowledge, insights, and best practices. This can enhance the expertise of individuals and organizations, leading to better-informed decision-making.

   - Policy Influence: Research findings from action-oriented programs can be used to influence policy decisions and program implementations. This can be especially valuable for governmental and non-governmental organizations looking to improve policies and practices in LDCs.

   - Capacity Building: Participation in these programs can build the capacity of individuals and organizations to conduct research, gather data, analyze information, and communicate findings effectively.

5. Do you have the capacity to play a role in getting local adaptation research to influence or inform policy or practice?

   95% of the participants responded positively to having the ability to play a role in local adaptation research influencing or informing policies or practices.

6. In particular, are you interested in any (can be multiple) of these solutions:
   - Multi sector capacity building
   - A transdisciplinary Centre of Excellence
   - A data repository
   - **A multisectoral advisory platform (20%)**
   - **Participating in a climate change research advisory committee at university level or a project specific committee (50 %)**

- **Participating in research proposal development and co-supervising students (30 %)**

7. Do you have examples or ideas for other innovative solutions in getting local research into adaptation efforts?

   Yes, we have several examples of innovative solutions in Haiti, especially in the agricultural sector. Agricultural researchers are developing new crop varieties that can adapt to local conditions, which vary from one region to another, based on trends in environmental factors.

4. Were there any other outcomes (besides learning)? e.g. commitments made by participants, follow up meetings planned, etc?

Yes, there were other outcomes, such as defining additional actions to be taken within the scope of this forum, establishing working groups on various climate adaptation-related topics, and providing information on climate adaptation programs in Haiti.

5. Your reflections

a) Was this engagement useful to you and to those who participated in it? Please provide honest feedback, it can be critical!

   Yes, it's a truly interesting activity that will have a significant positive impact on the participants. However, this activity should have a follow-up to better guide our actions.

b) Do you think that this form of distributed responsibility is valuable in a co-creation process? In other words, do you think that co-creation processes should consider giving some responsibility for hosting engagements to others outside of the core organisations?
   .
   Yes, this activity gives more responsibility to the participants, but the challenge is that public policies in Haiti are quite difficult to change direction; it requires a lot more advocacy.

6. Suggestions for regional online workshop

a) Do you have any suggestions for the format or focus of the planned online workshop?
b) Do you feel that your participants will join the event?
c) Do you feel that your participants will feel able to share their experiences from your engagement openly, or are there any politics that might limit their involvement?

7. Costs

a) What did your engagement cost in total?
   2, 007,50 $USD

b) Was the funding allocated adequate for this scale of engagement? No, we had faced many challenges to be able to carry out this activity with this funding.