

Introduction

Climate change has been an evolving issue globally with the causes attributed to anthropogenic factors. African countries have experienced and are still experiencing the effects of climate change directly in major economic sectors¹ despite their minimal contribution to greenhouse gas emissions as compared to developed countries. The impacts of climate change are much felt in developing continents such as Africa where the vulnerability is still high with low adaptive capacities in various contexts and thus the need for capacity building in various climate change tenets to enhance the adaptive capacities.

The vulnerability to the changes is increased by development challenges including poor infrastructure, high poverty levels, dependence on rain-fed agriculture as the main source of livelihood, and technological limitations among others. Efforts to curb the impact of climate change have been made by both the developed and developing countries through financing, mitigation, and adaptation strategies². The capacities in Africa to address climate change effectively in finance, adaptation, mitigation, planning, modeling, and governance still need strengthening and thus the need to establish sustainable institutionalized modules and programs that effectively address both academic and industry needs.

With the climate crisis becoming more distressing yearly, mitigation and adaptation measures play a huge role in navigating the climate-related challenges. The two measures coincide but are dissimilar. According to Kimaro et al, 2020³ climate mitigation aims at reducing the impacts of climate change by focusing on the reduction of GHGs by reducing the sources of the gases, for instance, burning fossil fuels for electricity, heat, or transport, or enhancing the sinks including oceans, soil, and forests of these gases. Adaptation on the other hand involves activities that allow societies to adjust to foreseen climate impacts and are thus mainly behavioral in nature. Therefore, mitigation addresses the cause while adaptation addresses the current and potential impacts. In Africa, efforts towards the climate change plight have been realized through a number of the Regional Economic Communities (RECs) such as the Common Market for Eastern and Southern Africa (COMESA), The East African

Policy Messages

- Climate change training, education and research is multidimensional; encompassing both scientific and social contexts
- Climate change impacts are contextual and so should be the capacity building solutions
- Delivery models of climate change messages vary and need to adapt to the moments of change
- The African continent does not lack expertise in climate change training but lacks coordination and sustained learning exchanges
- The capacity for national and institutional sustainability planning is critical for climate change action

Policy Recommendations

- Deliberately be inclusive in capacity building within climate change initiatives
- Exploring the unique climate change needs is necessary to make informed and targeted solutions and tailor-made training modules for delivery
- Training, education and research institutions need to adapt their delivery models to the changing needs
- Climate change training expertise within the continent needs to be explored and coordinated for both synchronous and asynchronous learning.
- Nations and institutions should have a sustainability plan that highlights a clear vision, objectives, strategies, and plans for partnerships and resource mobilization

Community (EAC), and the Southern African Development Community (SADC), who are keen to support climate actions. Kimaro et al, 2020³, Mugabe, 2008⁴, WHO⁵ and UNFCCC^{6,7} cites capacity limitations of key actors as one of the major constraints in realizing climate mitigation and adaptation. This justifies capacity development for various players with regard to institutional arrangement, knowledge, accountability, leadership, public and private arrangements to climate change. Even though climate change is a global issue with global concerns, the impacts are localized and vary from one part of the continent to the other thus the need to contextualize the capacity support for sustained climate action and resilience

With the impacts of climate change being felt across the globe, one of the challenges of climate change information or/and learning systems is the difficulty in bringing people to the same level in terms of how they perceive, conceptualize, act, and be resilient to climate change. Therefore, how we deliver any information is important for contextualization and inclusivity. The content, and format of the climate change messages, training modules, and action calls should be packaged and delivered in a manner that can influence transformative change at the right level, in the right context, and reach.

This policy brief is designed to present action areas to contextualize climate change action in the format needed based on the lessons learned during the implementation of the CapCET project in the two technical institutions; Ethiopian Environment and Forest Research Institute (EEFRI) and Environment Climate and Sustainable Development Institute (ECSDI) in Ethiopia and Zimbabwe respectively. The project was implemented using a demand-driven model (Figure 1) that comprised of a number of phases that contributed to building the capacity of the institutions including landscape assessment; needs assessment; module development; module delivery and sustainability planning. The training needs that were assessed included climate finance, mitigation, adaptation; modeling, policy, and leadership. Through the planning, development, and delivery of the modules and the feedbacks and reflections thereafter, several key messages and lessons emerged and are highlighted in this brief.

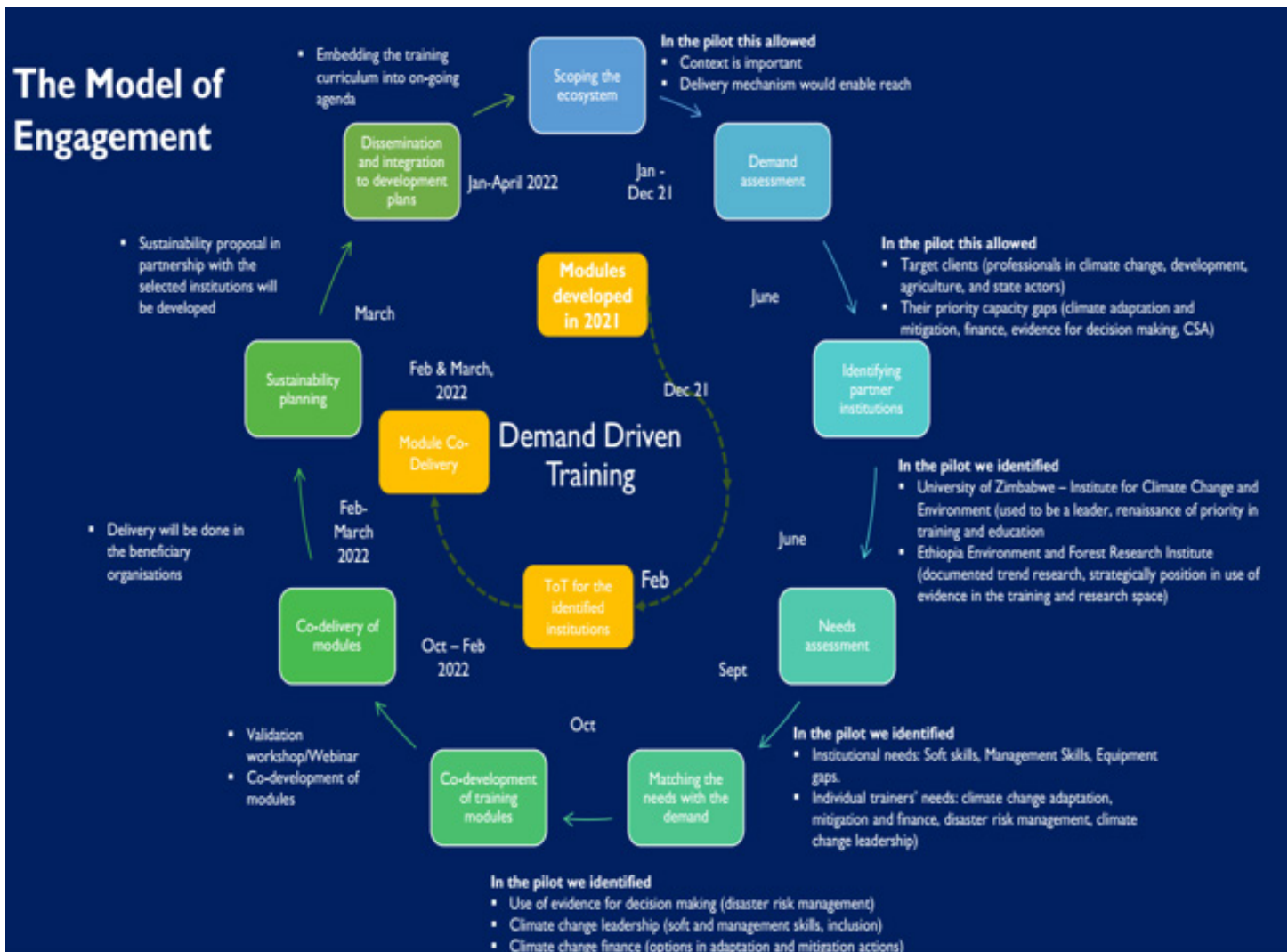


Figure 1: Demand driven training model

Policy Messages

Climate change training, education and research is multidimensional including the science and the social contexts

Climate change has different dimensions (Figure 2) that vary in scale and time. Both the developed and developing countries experience the impacts of climate change even though at different scales and intensities. African countries, most of which are developing, have experienced and are still experiencing the impacts of climate change directly in major economic sectors¹ despite their minimal contribution to greenhouse gases emissions as compared to developed countries. In the African Continent, the capacities to adapt and thus the vulnerabilities of various systems including social, infrastructural, policy and knowledge systems vary from one part of the continent to the other. The capacity building and support required thus vary institutions, communities, groups, and governments' etc².

Despite climate change being a physical phenomenon, social, cultural, economic, and political systems influence how different social groups are impacted by climate change. Minority groups are affected disproportionately; women,

children, and persons with disabilities are more vulnerable to the effects of climate change due to the differential gender roles, physical challenges, and insufficient access to resources. Despite women and girls being more vulnerable, men and boys also have unique vulnerabilities that need to be addressed through policies and practices. Gender mainstreaming is an effective way of handling gender concerns through research, policies, and practices that ensure no further or limited gendered inequalities are experienced. The dimensions of the context of climate change, gender inclusivity, and local priorities with global interlinkages need to be a priority in climate change capacity building programs in Africa. Efforts for this have been made in the continent at different levels and organizations. However, there is still more work to be done. In Ethiopia out of 10 participants in the training of trainers, only 3 were women. Further, during discussions with the participants, there were concerns that more needs to be done to sensitize women and motivate them to be part of different initiatives.

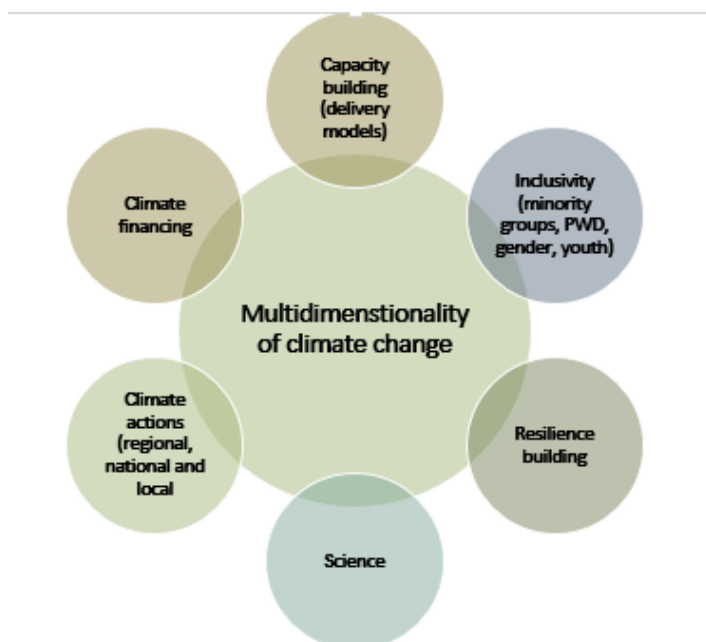


Figure 2: Some dimensions of climate change

Climate change impacts are contextual and so should be the capacity building solutions

Just as every human has unique and different needs, different countries and/or institutions have specific needs as per their mandate and objectives. The way environmental, natural resources, academia, and research sectors tackle climate change and its effects are dissimilar but the end goal is the same – climate action and sustainability. Through the CapCET training program, there was a needs assessment to determine the climate change capacity demand areas and the institutional needs.

In the two selected institutions (EEFRI and ECSDI) there were needs that were highlighted by the core stakeholders. For instance, in EEFRI climate modeling, climate policy and leadership modules were the key training needs whereas in ECSDI climate mitigation and adaptation (mainly on climate technology) and climate finance modules emerged as the key training needs. However, after reviews and discussions, the two institutions came to a consensus to take all the four modules but modules to be tailored to fit the specific contexts and needs of the two countries (Ethiopia and Zimbabwe).

It is clear that within the continent, specifically the COMESA region, the priority needs for capacity building in climate change vary depending on the local contexts. This necessitated that all needs be responded to in a unique way that is relevant to the context thus giving room for solutions to be targeted rather than using one-size-fits all approach for the continent. This could be cascaded down to the local contexts of a Country where the priority needs may vary based on

the sectors, the regional governments, local infrastructures, and social systems and contexts. The capacity building and support may need to be locally contextualized and demand-driven if sustainable local climate actions that will ultimately build the local climate resilience desired are to be achieved.

The demand-driven model (Figure 1) takes the approach of case studies that are relevant to the different countries making it a unique climate change model compared to what has been done over the years – putting all African climate needs in one blanket.

Delivery models of climate change messages vary and need to adapt to the moments of change

Kimaro et al, 2020³, Mugabe, 2008⁴, WHO⁵ and UNFCCC^{6,7} cites the capacity limitations of key actors as one of the major constraints in realizing climate mitigation and adaptation. This justifies capacity development for various players with regard to institutional arrangement, knowledge, accountability, leadership, public and private arrangements to climate change.

The CapCET project sought to address some of these challenges through capacity building with respect to research, policy engagement, and training in the COMESA region with the desire to sustainably reach the entire African Continent.

The delivery of the climate change capacity building modules and messages should adapt continually to the changing societal needs, technologies and political and social systems and arrangements. With the changing times, online methods of delivery need to be embraced to ensure that knowledge systems are still actualized regardless of the time, space and/or situation.

The COVID-19 pandemic has taught us that we do not need to only meet in a physical room for objectives to be met. Nonetheless, this is not to disregard the power of in-person meetings – the interactions and dialogue are not limited by the internet.

The practical modules such as the climate modeling go beyond virtual space and require one on one interaction. Therefore, having a blend of both in-person and virtual methods could enhance the attainment of the set goals as learned from the CapCET project training of over 60 professionals who participated in online training for the theoretical courses and in-person for the practical courses.

Fig. 2 in the next page shows the link between climate change, gender and delivery models, an understanding of these gives perspective of the different options that could be explored further for optimal outcomes.

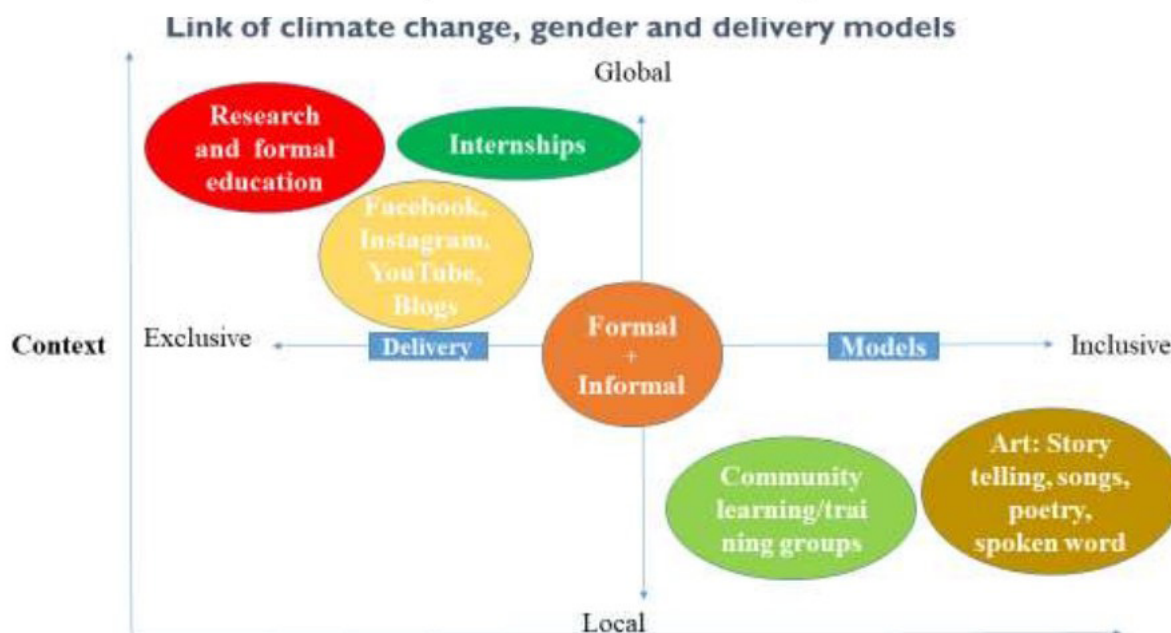


Figure 3: Impact of delivery models

The African continent is not lacking expertise on climate change training

Like in many value chains, the quantity of a commodity is often not the issue, but getting it to the people who need it most is! Africa has a broad range of expertise in climate action. Within the COMESA region alone, there are over 10,000 trained professionals on climate action, but the distribution is skewed to countries with better climate change interventions, policies, and procedures. Kenya for instance has professionals in various climate change subjects, and advanced climate change policies, procedures, and initiatives.

Other countries such as Zimbabwe, are accelerating their climate action initiatives, and need their capacity to be built rapidly but progressively and sustainably. Ethiopia seems to have expertise in some thematic areas and lacking in others and thus needs capacity-building support. Herein, the challenge lies, where for example Kenyan expertise is likely to be superior in some thematic areas yet desperately required in Zimbabwe and some areas in Ethiopia!

The implication of this is that there needs to be a framework that allows for shared expertise, which is easily reachable, accessible, and in the right context.

One of the opportunities that exist in this is utilizing online tools and resources, with the capability to match the expertise gap, training in real-time, and using local case studies. The online opportunities bridge the distribution chasm and with the changing times, they give promote knowledge regardless of time, space and situation.

The capacity for national and institutional sustainability planning is critical for climate change action

A Sustainability Framework identifies a set of organizational and contextual elements that can help build the capacity for sustaining a program. Sustainability depends on developing a clear plan for putting in place and keeping in place the key elements that make an initiative successful.

It inevitably requires a balance of funding and building relationships with key stakeholders that can broker resources as well as become champions for an initiative.

Whilst ensuring that knowledge systems conform to context and the need to be targeted in the climate change space, having partnerships and resource mobilization strategies at different levels is equally important in ensuring continuity of great initiatives.

Therefore, there is a need to be sustained over time and this requires financial, human expertise, political goodwill, sustained partnerships and collaborations. Partnerships and strategically positioning oneself/institution/nation is key to this regard.

Participants of the CapCET project appreciated and emphasized the need for a sustainability plan that captures both the partnerships and resource mobilization plans to meet both the present and future objectives and ensure collective climate action and growth (Figure 4).



Figure 4: Sustainability Planning

Policy Recommendations

1. Deliberately be inclusive in capacity building within climate change initiatives

– Climate change has impacts that vary considerably across different contexts and so should the climate change capacity building initiatives. Climate change is also not gender-neutral where different ages and genders are disproportionately affected and this is due to the differential roles that society has gendered. In climate change education, ensuring that both genders are represented is a way of contributing to gender mainstreaming and ensuring that all groups are getting educated in the needed ways for proper synthesis and action.

2. Exploring the unique climate change needs is necessary to make informed solutions and tailor-make modules for delivery

– From the CapCET project the approach to having case studies and examples that are relatable to trainees, enhances the understanding among actors, and professionals, and allows the learners to take up more. Contextualize the capacity building modules and package the messages and information to the local contexts but with global comparability and relevance.

3. Climate change education, training and research institutions need to adapt their delivery models to the changing needs

- The in-person interactions have a way of ensuring staggered and personalized learning, even in adult education, with often-instant results in the output of training. Nonetheless, we need to take advantages of both the virtual and in-person spaces, if we are to enhance capacity within the continent, through hybrid training delivery models. Customizing the delivery models to best suit the local contexts and overcome the prevailing situations some of which include limited resources, travel restrictions, and time constraints to enhance local capacities is critical.

4. Climate change training expertise within the continent needs to be explored, coordinated, and exploited for both synchronous and asynchronous learning

- The experts understand the contexts better and will ensure that knowledge systems are contextualized for targeted climate change solutions. There exists expertise in the continent in various facets of climate change capacity building needed. However, the need for better coordination and learning exchange, and knowledge sharing platforms are required for sustained capacity support.

5. Nations and institutions should have a sustainability plan that highlights a clear vision, objectives, strategies, plans for partnerships, and resource mobilization to ensure that all the good climate actions do not come to an end as soon as a project stops/funding is cut.

Summarily, this policy brief encourages all the policy documents on climate change and specifically the Nationally Determined Contributors (NDCs) to support the need for contextualization of climate actions and ensure that the climate strategies include capacity delivery models and technologies based on contextualized needs and priorities. With this, the solutions will be targeted, more impactful, and sustainably contributing to the much desired transformative change in Africa.

Acknowledgement

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