

Advancing Climate Justice Through Girls' Education at CAMFED

Final Report to CAMFED

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Over the course of eight months (June 2022 through February 2023), I had the opportunity to serve as a participant observer in the development of CAMFED's climate change curriculum for learners in Zambia and Zimbabwe. As someone who has personally conducted [a landscape analysis](#) of programming targeting gender-transformative education for climate justice and having developed climate-oriented curriculum for out of school adolescent girls in Nigeria, I can attest that CAMFED's climate change curriculum is one of a kind, and that CAMFED's process of developing it can and should serve as a model for others for being both socially inclusive and based in local needs.

CAMFED's climate change curriculum not only addresses the basic science of climate change, including topics like the greenhouse gas effect and climate mitigation and adaptation. But it also seizes the rare opportunity to build further from this foundation to strengthen learners' awareness of underlying structural inequities, like gender inequality and economic inequality, that make some populations, like girls and women in low-income countries, more vulnerable to the impacts of climate change than others. The curriculum takes great care to contextualize climate science and climate justice content in the realities of the most marginalized young women in Zambia and Zimbabwe, complementing existing approaches to climate topics taken up in both countries' national curricula. And CAMFED's climate change curriculum threads gender sensitive pedagogies and a life skills development approach to build learners' green life skills and sense of agency to engage in locally relevant, gender empowering climate action. The curriculum will no doubt inspire learners to pursue climate-smart livelihoods; it will also help to strengthen climate resilience and adaptive capacity among some of Zambia and Zimbabwe's most climate vulnerable populations.

This report summarizes my observations from three phases of work during these eight months: needs and gaps assessment, curriculum development, and field testing. The goal of this report is to highlight key insights from my observations to help inform CAMFED's own organizational learning and later adaptation of the curriculum to other country contexts. A secondary goal is for the insights gleaned here to serve as a starting point for building a more robust case study of CAMFED's approach to advancing climate justice through girls' education that could later serve as a model for other organizations seeking to follow in CAMFED's footsteps.

Phase 1: Needs and Gaps Assessment

During this phase, I reviewed CAMFED's needs assessment conducted by CAMFED Zambia and Zimbabwe with secondary school children, youth, teachers, and CAMA Learner Guides and

Agricultural Guides in both countries. I also conducted a high-level gaps assessment of several subject area curriculum and national policies from both countries, as well as conducted a rapid review of CAMFED's My Better World curriculum to identify potential climate connections. Below are my key takeaways from these activities.

Highlights from CAMFED's Needs Assessment

When it comes to developing climate change education curriculum, the easy thing would have been to develop materials that start with the science of climate change and then move forward toward climate solutions. However, such an approach would likely result in climate change education that is irrelevant, inaccessible, and/or unactionable in countries bearing the greatest brunt of climate change, especially for those learners facing multiple intersecting forms of marginalization and exclusion. Instead, CAMFED's approach to conducting a needs assessment first before developing any materials is an illustration of the team's sensitivity toward localization, contextualization, and centering the perspectives of the most marginalized children in the process of content development. This approach no doubt helped to ensure the ultimate product CAMFED would later go on to develop would be responsive to the needs, gaps, and opportunities for a gender-empowering climate change education in Zambia and Zimbabwe.

Both needs assessments demonstrated that youth are aware of climate change and are generally knowledgeable of its causes and impacts, including the disproportionate impacts shouldered by girls and women. Much of this knowledge and awareness appears to have been built through a combination of basic exposure to climate-related topics at school and through the media, and through personal experience with climate change and/or observations of its impacts in their communities.

The needs assessments also identified significant gaps in knowledge of climate solutions and skills that could strengthen individual and community climate resilience, including through climate-smart livelihoods. The assessments highlighted the need for demystifying climate solutions, including the distinction between solutions that promote mitigation and/or adaptation, as well as broadening awareness of climate actions beyond recycling and tree planting and beyond individual behavioral change.

The needs assessments also suggest that there is a gap in localized and comprehensive content when it comes to climate change education in both countries. This includes a lack of teaching and learning materials that draw on local climate manifestations and attend to the ways in which climate impacts intersect with issues of poverty, gender equality, food security, and livelihoods. It also includes a lack of attention to building relevant green life skills, like identifying and adapting to local climate risks and vulnerabilities.

Finally, the lack of locally relevant materials also points to a need to integrate content at some point in the future into the national curriculum of both countries. This signals the opportunity for CAMFED to not only consider a larger audience for its climate change curriculum (similar to the reach that My Better World has), but also a greater circle of stakeholders to include in the process of developing climate change materials from the start.

Highlights from Curriculum Gaps Assessment

In line with seeking to understand the existing context better, CAMFED also took the time to conduct a gaps analysis of the existing secondary school curriculum through which learners would have been most likely to have come across climate-relevant topics (e.g., in agricultural science, biology, geography, and science subjects). Such a step in this first phase of work functions to ensure that CAMFED’s climate change curriculum complements existing formal education on the topic, avoiding potential duplication of content that might already be established, while also filling potential content and skills gaps.

In my rapid review of Zambia’s and Zimbabwe’s national curriculum—first, their geography and science curriculum, where participants from the needs assessments pointed as places where climate change is already covered in schools—it was clear that climate change is covered only rudimentarily, and that there are many missed opportunities to more fully integrate and/or to bridge to relevant climate topics, including climate justice. When the topic of climate change is actually covered, both countries take a highly technical or scientific approach, prioritizing a cognitive understanding of the causes and impacts of climate change. Actions emphasized by the curriculum lean heavily toward conservation and environmental awareness, individual behavioral change, and the building of subject-specific skills or know-how (i.e., the “sustainable exploitation, processing and economic use of minerals and other resources” and “enterprise skills in resource utilization and conservation”¹).

While a range of generic interpersonal or socioemotional skills like communication, problem solving, and critical thinking are present; these skills were not observed to be directed at climate action or engaging in relevant civic processes. Other notable gaps include building attention to issues of climate justice, including gender equality and unequal relations of power, building a sense of ownership and self-efficacy to engage in empowered climate action, and building transformative green skills to facilitate systems change and/or more sustainable development in both countries. (See Annex 1 for a table summarizing the findings from the Gaps Assessment.)

For example, Zambia’s geography curriculum offered the closest touchpoint to an existential dimension to green learning, raising attention to the destructive impact of human interaction with the environment in the context of resource depletion, environmental hazards, and environmental degradation. But these touchpoints did not appear to go the next step in critical thinking by providing space for reflecting on how such interactions might challenge economic development priorities in Zambia (e.g., the promotion of industries like mining and manufacturing that may harm the health and wellbeing of communities, including children vulnerable to child labor). Similarly, Zimbabwe’s agricultural curriculum covers the historical background to the country’s land tenure practices, including pre-colonial, colonial, and post-independence. And while the curriculum suggests activities like speaking with a local resource person to understand the rationale behind the country’s land tenure reform (a

¹ Zimbabwe, Geography Forms 1-4, p. 1.

potential civic engagement touchpoint), a missed opportunity is a discussion of the gender implications of land tenure and how this impacts the climate resilience and prospects of adopting climate-smart livelihoods for women in the country.

In terms of attention to green jobs, Zambia and Zimbabwe’s agricultural sciences curricula holds a strong orientation toward increasing the desirability of agricultural jobs but make little explicit connection to how these jobs could be green jobs. Both countries’ curricula have a heavy emphasis on developing business, enterprise, and entrepreneurial skills in agriculture, but does little to highlight for young people, especially young women, the range of agricultural practices, off-farm activities, and supply chain issues that could be translated into green jobs or be “greened” or made more climate-smart to become viable climate relevant and climate-resilient livelihoods. And outside of the agricultural curriculum, there appeared to be little discussion of other potential green jobs (e.g., in energy, manufacturing, or mining topics that are also covered by the curriculum reviewed for this exercise).

With these insights, CAMFED was able to enter its curriculum development phase with an understanding of the extent to which learners are presently exposed to climate change education, while also understanding the gaps that need to be filled and the extent of the local need for more gender-responsive and gender-transformative climate change education materials in both countries.

Highlights from Review of MBW

A final step that CAMFED took in its planning was to better understand its existing programmatic entry points through a rapid review of its My Better World curriculum. Such a step allowed the team to identify points of connection that the climate change curriculum could make—and therefore Learner Guides and Agricultural Guides facilitating the climate change lessons—especially to existing life skills content that learners would have received or have been introduced to already (e.g., the “My Powers” framework). Such a step also allowed the team to identify places within the My Better World program to which the climate change curriculum could extend—for example, the MBW units on the natural world; on problems, threats, and opportunities; and on meeting our basic needs through sustainable livelihoods.

Phase 2. Curriculum Development

During the curriculum development phase, I had the privilege of reviewing drafts of each unit as the core curriculum writing team developed these in close collaboration with CAMFED Zambia and CAMFED Zimbabwe. Having developed curriculum in the past before, I was impressed by the level of coordination and communication taken to ensure this phase of work was 1) rooted in the insights gleaned from Phase 1, especially the perspective of marginalized learners from the needs assessment, and 2) inclusive of the views, experience, and expertise of all members in the steering committee. The development of CAMFED’s climate change curriculum was truly a collaborative and consultative process, with the core writing team and the steering committee meeting weekly to discuss progress, pain points, and areas requiring inputs or feedback by the

country teams. Below are a few of my observations of what this process was like, based on the objectives the team intended to achieve.

Balancing scientific accuracy with multiple ways of knowing

The team went to great efforts to ensure content in the curriculum is scientifically accurate and terminology is accurately defined. But what was unique about this process of ensuring accuracy was not the fact checking, but rather that the team did not assume that modern science was the only “accurate” path to understanding the climate crisis nor the only path to identifying and/or innovating climate solutions. Instead, what was unique was the team’s sensitivity to multiple ways of knowing.

The team also went to great efforts to identify where content may have been informed by assumption rather than by evidence (e.g., the notion that burning of any and all organic materials contributes to climate change). When such occurrences happened, the team provided space for fact checking and, where warranted, for discussing alternative ways of knowing, being, and doing (e.g., recognizing that controlled or prescribed burning is a traditional land practice that revitalizes or promotes the health of certain ecosystems).

The team similarly also created space in the curriculum for Learner Guides and facilitators to be able to respectfully navigate and tackle myths and misinformation that may arise with learners, especially those ideas rooted in values that may perpetuate gender inequality or violate human rights. For example, attributing the destruction of one’s crops to the nonconforming behaviors of an adolescent girl in the family, rather than to the ongoing drought caused by climate change.

Localizing and contextualizing content

A key green learning design element is to begin with a cognitive entry point that is relevant to learners. For instance, examining a story about a local climate impact affecting one’s own community, like a recent flood in one’s region or the increasing intensity of algae blooms in a major local body of water, rather than beginning with climate events that have happened far away or starting with abstract climate concepts.

In line with this design element, the core writing team and steering committee solicited examples and stories of climate change, climate action, and climate champions from CAMA members in Zambia and Zimbabwe. Drawing on real local stories does more than allow learners to see and hear familiar sounding names and places in the curriculum and activities. It allows learners to engage scenarios and examples in ways in which they can more easily relate. Importantly, it also allows learners to see and imagine what is possible for them, especially when it comes to inspiring role models who come from similar backgrounds as themselves. Such an approach to learning is not just about contextualization, but about creating opportunities for *quality* education.

Ensuring content is gender empowering and oriented toward climate justice

Connecting gender empowerment with empowered climate action was another predominant focus of the curriculum development process. Aligned with CAMFED's core mission and its more recent objective to build climate resilience, the team ensured curriculum content was not only gender empowering, but also oriented toward transforming underlying drivers of climate vulnerability for girls and women.

The team achieved this by attending to a breadth of green skills throughout the curriculum, from the more "technical" skills like climate risk identification that help to build one's "climate smarts," to the socioemotional skills like regulating ecoanxiety and channeling these emotions into climate action, to the transformative skills like recognizing one's power and agency, engaging in self-advocacy, and building coalitions for enhanced climate resilience. All three types of green skills are necessary to empower learners to engage in transformative climate action—that is, action that not only addresses the climate crisis through mitigation and/or adaptation actions, but also addresses underlying systems of inequity and inequality that shape climate vulnerability.

From my observations, perhaps one of the more challenging aspects of curriculum development was ensuring the orientation towards climate action and climate resilience was not limited to individual actions and individual behavioral change, but also toward building collective action and the achievement of climate justice. Indeed, threading themes of climate justice throughout—rather than isolating these themes into separate sessions in each unit—required the team to strike a balance between the desire to be comprehensive with the need to be pragmatic and realistic. This was both in terms of the complexity of the content (e.g., how far do you go into unearthing the underlying systems driving climate risk for girls and women, or to demonstrate their intersecting forms of climate vulnerability?), and the deliverability of the content (e.g., how much scaffolding is needed, how much time is available to cover a topic, etc.). In the end, the team did identify ways to balance between ideals and constraints, without compromising the desire to create a curriculum rooted in gender transformative education for climate justice.

Phase 3. Field Testing

The last (and current) step that CAMFED engaged in is to test and roll out the curriculum, including the development of a facilitator's guide/handbook for Learner Guides and Agricultural Guides and a training of trainers workshop. The approach taken during this step is well aligned with the spirit of CAMFED's overall approach to developing the climate change education curriculum, ensuring that it addresses existing needs and gaps and that the terms, concepts, ideas, and actions are relevant and accessible. Indeed, this step of field testing, training facilitators to increase their confidence with teaching climate change, and concurrently adjusting or revising the content and activities based on feedback will help to ensure that the curriculum has the greatest chance at having a positive and transformative impact on learners.

Another important step, which actually began prior to even the first phase of work, has been the team's "field testing" of ideas and the emerging product with key stakeholders, especially

Ministry of Education officials in both countries through National Advisory Committees and Technical Working Groups. This step is a testament to CAMFED's inclusive ways of working and their sensitivity to creating pathways to scale through the uptake of their initial efforts by local stakeholders and national governments.

Conclusions

As a gender, climate, and education specialist, it was a privilege to be able to participate in and observe the development of a groundbreaking climate change education curriculum. Not only did I have the opportunity to help inform its direction, but I also had the opportunity to learn from a truly collaborative effort in curriculum development.

The climate crisis is perhaps one of humankind's greatest existential threats, exacerbating inequalities and creating even more obstacles for girls and women to reach their full potential. While CAMFED was already doing inspiring work to empower girls and women before the full extent of the climate crisis was understood, CAMFED's climate change education curriculum positions the organization at the forefront of intersectional climate solutions and transformative climate action. The opportunity to witness the development of this curriculum brings me hope that through collective and inclusive action, we can orient our work in global education to build the knowledge, skills, capacity, and agency to face this challenge head on.

Annex 1: Summary of Curriculum Gaps Assessment

		Green Learning Design Elements					Breadth of Green Skills			Quality Climate Change Education						
		Cognitive diversity	Affective dimensions	Existential dimensions	Ownership dimensions	Empowerment Actions	Specific capacities	Generic capacities	Transformative capacities	Gender equality	Intersectional approach	Science-based	Civic engagement	Climate justice	Climate action	
	Mentions climate change?	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	Yes	No	No	No	
Zambia Curriculum																
Agricultural Science G8/G9		x	x				x	x		x		x				
Agricultural Science G10-12	x	x					x	x		x		x				
Biology G10-12		x	x				x	x				x				
Geography G10-12	x	x	x	x			x	x		x	x	x				
Science G10-12	x	x					x	x				x				
Zimbabwe Curriculum																
Agriculture Forms 1-4		x					x	x		x		x				
Agriculture Engineering Forms 5-6		x					x	x		x		x				
Geography Forms 1-4	x	x					x	x		x		x	x		x	
Science Forms 1-4		x					x	x								

Notes: Green Learning Design Elements and Breadth of Green Skills metrics adapted from [A New Green Learning Agenda](#). Quality Climate Change Education metrics adapted from the [Climate Change Education Ambition Report Card](#).