



Community Participation, Equity and Integrity in Polycentric Governance for Climate Resilience: Evidence from Kenya and Zambia

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Kenya and Zambia

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Learn more about ClimBeR here: <https://www.cgiar.org/initiative/climate-resilience/>

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SUMMARY

Inclusive community participation in bottom-up polycentric governance is at the heart of recognitional, procedural, distributional and inter-generational equity and of integrity of international, national and district-scale interventions to improve climate resilience in marginalized rural areas. This Technical Brief summarizes evidence of four ClimBeR and ACTION initiatives in Kenya, in collaboration with the Water Integrity Network, and in Zambia that operationalized these concepts into a concrete diagnosis of local water tenure as basis for the identification of solutions and their funding and implementation. At the interface between communities and government or other external support agencies, this step-wise process of co-design and implementation mobilized communities' assets and agency of their horizontal, age-old and yet dynamic, integrated water, land and other resource governance. Typical siloes in formal vertical governance were overcome. Such community participation is probably the single most important condition for effective and sustainable performance.

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1. Locally-led polycentric governance

Community participation, equity and integrity

Agrarian livelihoods of smallholders and pastoralists in low-income rural areas critically depend on seasonal rainfall. Hence, they are hit hardest by climate variability and change. Efforts by governments and other organizations to improve their climate resilience depend on the complex governance webs of vertical and horizontal polycentric decision-making across multiple tiers (Ostrom 2005). Core conditions for effective and sustainable support include equitable participation, technological innovation, integration and cross-sectoral collaboration, and system thinking (IPCC 2022). How can these policy intentions become concrete? This Technical Brief summarizes new, actionable pathways identified under the ClimBeR program, anchored in bottom-up inclusive participation that mobilizes and strengthens rural communities' assets and agency. This also meets all four dimensions of equity: (a) recognitional equity; (b) procedural equity; (c) distributional equity of costs and benefits, and resources, and (d) intergenerational equity (Hellin et al. 2022), as discussed next. This is followed by three illustrative highlights of each of the four ClimBeR initiatives in Kenya and Zambia.

Recognitional equity

Recognitional equity through community participation opens up -hitherto still hardly acknowledged- local assets and agency to cope with seasonal climate variability. Since time immemorial, rural communities have survived thanks to local seasonal and yearly weather forecasting, crop choices, cultivation calendars, soil moisture retention and irrigation techniques, mobility to the right grazing areas and water resources for livestock, fisheries, protection against floods, and adapting entire livelihood strategies to seasons. Recognizing and strengthening local assets and agency according to own priorities is effective and sustainable. Communities are also the best placed to judge whether research and interventions to improve their climate security, achieve those goals.

Community participation also provides new integrated solutions in external agencies' search to move beyond the siloes with their notorious voids and blindness for straightforward synergies. Men, women, families, other kin, and communities live together with horizontal governance structures that interlinked the various forms of decision-making: combining cropping *and* livestock; governance of land *and* its waters *and* trees *and* pastures; the integrated hydrological cycle of precipitation, surface *and* groundwater; household-scale or collective investments in self-supply technologies for multiple benefits, for example, water infrastructure that considers every member's domestic needs *and* the diverse productive water uses of the large majority, if not all community members. In other words, in the search for 'system' approaches, horizontal governance in rural communities is such systems. Specifically for water, "water tenure" refers to a system, defined as the relations between people, whether formally or customarily defined, with regard to water (FAO 2020).

Procedural, distributional and inter-generational equity

We don't romanticize communities and recognize intra-community gender, class, age and other inequalities, as part of procedural, distributional and inter-generational equity considerations in vertical polycentric governance. At the interface between communities and local government, various departments and other external agencies, procedural equity is key for a fairer distribution of resources and assets, both within communities and between communities and these external agencies. Procedural

equity concerns the typical steps for most initiatives (Van Koppen et al 2020). After agreeing on the people involved and the governance structure for decision-making (step 1), a joint diagnosis highlights the challenges at stake (step 2). Concrete, potential solutions are identified (step 3) for which financial and other support is allocated, usually by the external agencies (step 4). This is followed by implementation (step 5) to achieve the intended outcomes (step 6). These steps are not rigid but highlight that some action is needed before a next step can be taken. Rigor of decisions can vary and earlier decisions can be retrofitted to some extent.

Procedural equity for distributional equity, which is anchored in recognitional equity, boils down to inclusive community participation from the first step onwards. Inevitably, mandates of government and other agencies frame and constrain the financial, technical and other support “on offer” to a large extent, which needs to be clearly communicated. However, recognitional equity based on community participation opens up precious space and avoids the common ‘parachute projects’. In such interventions, issues and solutions are defined in a top-down manner and engagement is limited to supposed community leaders for information extraction and rapid implementation. Implementers at local level remain only accountable upward to their bosses and funders.

Accountability downward in the vertical governance at district, provincial, national, regional and international levels, requires integrity, transparency, mutual accountability and corruption prevention along all those scales, both top-down and bottom-up. Integrity is effective and builds sustainable trust in government, a good reputation and creditworthiness with funders (WIN 2020).

This interpretation of multi-faceted equity and integrity, anchored in inclusive community participation was concretely applied in Kenya (in collaboration with WIN and ClimBeR) and in Zambia (with ClimBeR partners). The studies in 2022 were diagnostic of recognitional equity (step 2); the initiatives in 2023 moved to next steps. We now turn to the context and three salient features of each initiative.

2. Kenya

InWASH Tool for small water supply systems

In the arid area of Kajiado County in South Kenya, inhabited by the Maasai community, droughts can decimate livestock. Water supply for humans and livestock mainly depends on government, but also on parastatals, banks, NGOs, donors or charity organizations. However, the governance of these small water supply systems is fragile. The Water Integrity Network (WIN) offers InWASH, which is a process in which an integrity coach helps improving integrity and corporate governance by jointly compiling and “Integrity Assessment” of diagnosed weaknesses and agreed plans to address. For those plans, a series of practical tools are available in the Integrity Management Toolbox. In 2018, WIN offered that training to leaders of three systems: the Sempewueti and Olchoro Nyiokie small-scale systems, and the gradually urbanizing small town of Maili Tisa with various water supplies. The ClimBeR study evaluated the impact of InWASH, and expanded the diagnosis to water tenure in the entire area (Keega et al. 2023).

1. The evaluation showed that the leaders participating in the InWASH training had failed to share the planned activities with other users. Some had moved on. Follow-up training is recommended that includes the strengthening of intra-community accountability.
2. Water tenure in this mountainous area encompasses the two gravity-fed systems and expanding self-supply. Although the Sempewueti system was designed for domestic uses and the Olchoro Nyiokie for

livestock watering, both systems are multi-purpose in reality. In this pastoralist area, women have no say in the management of these systems. In the rainy season, the expanding self-supply includes rainwater harvesting and the use of other sources that are nearer to homes than the two water supply systems. In the small town of Maili Tisa, private charity, commercial initiatives, and Namanga Water Sewerage Company tap into groundwater to provide water. Water vendors have become a reliable provider in the entire region.

3. Respondents mentioned a new dam, the Namanga dam, but they didn't know much more about it. Questions about participation in such complex, large-scale projects led to the follow-up study.

Community participation in public – private partnerships of the Namanga dam

Economies of scale can render gravity-fed large-scale dams a cost-effective solution to enhance climate resilience. Kenya introduced an innovative governance modality of its 100 large-scale dams. Private companies are invited to finance and implement large-scale dams that passed feasibility studies and tentative designs. After recouping the costs from customers during a certain period, they hand over the dam. In the case of dams primarily designed for water supplies, like the Namanga dam, Water Services Providers (WSPs) will take over according to the directives of the Water Services Regulatory Board (WASREB). The ClimBeR study analysed community participation during the planning and design phases of this Namanga Dam in the top-down and bottom-up vertical polycentric decision-making across international, national, county and local scales. By the end of the field work in August 2023, the results of the tendering process and review of designs were awaited after which the construction of the dam and reticulation network could start (Njoroge et al. 2024).

1. The publicly available information by August 2023 shows of the dam and reticulation design lay-out (see figure 1). The reticulation network provides water to rapidly developing towns: Namanga, Maili Tisa, Ngatatatek Town and Bisil Town. The rural areas in-between will not receive water from the dam but will benefit from reduced competition for water in the area. Support for small-scale systems and new borehole drilling are also recommended.
2. The site of the dam is in a government forest area, affecting only one land user. The dam is downstream of the points where the Sempewueti and Olchoro Nyiokie schemes abstract their waters. Seasonal stream downstream of the envisaged dam site are hardly used and replenish a lake.
3. Community participation is a provision of the Constitution of Kenya and the Environmental and Social Impact Assessment. Accordingly, the implementing design consultant organized two public meetings in Maili Tisa in 2023. One was for local leaders; the other was for the community members. Further participation is envisaged. However, community participation is not mentioned in the 2005 Practice Manual for Water Supply Services of the Ministry of Water and Irrigation, which is still used as well.

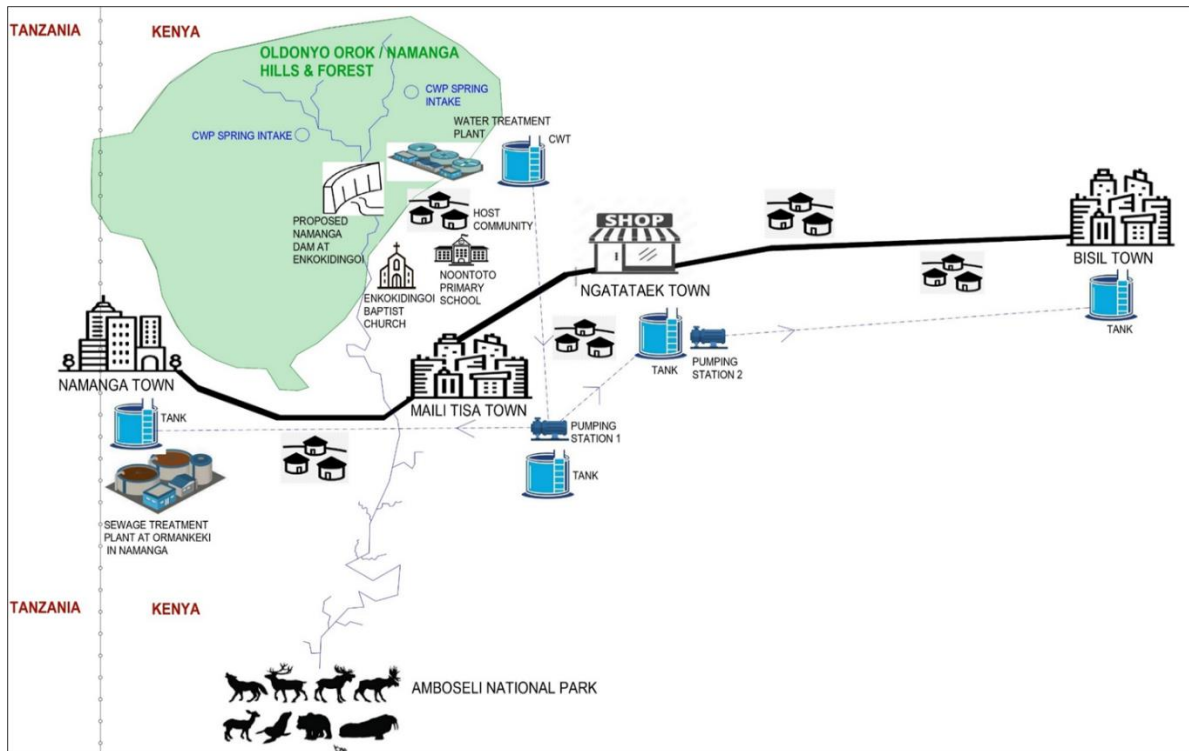


Figure 1. Sketch of the proposed Namanga Dam project lay-out (Source:Njoroge et al 2024)

3. Zambia

Gender in the land-water nexus

Communities' water tenure is integrated. The diagnostic study in Zambia disentangled interconnections between gender, land and water. Large areas in Zambia are matrilineal, as part of the matrilineal belt through Madagascar, Tanzania, Mozambique, Malawi, Zambia and the DRC. Customary land titles are not only a main source of power in rural Zambia and elsewhere, but also determine physical nearness to surface water sources, including wetlands (or 'dambos'), or aquifers. However, pipes, canals, and other conveyance infrastructure substitute for such nearness. By assessing water tenure in one village (Makopa) in the matrilineal Eastern Province and in one village (Simukale) in a the patrilineal/bilateral area of Southern Province, some comparison could be made (Mweemba et al 2023).

1. In the matrilineal community, land inheritance was mostly from mother to daughter. The young husbands move to settle in their wives' village. In the patrilineal community, land generally passes from father to son. Men who are sure they can provide for their future family convince their future wives to move to their village, often by recognizing and compensating the wife's kin for the labour power and offspring her family loses. In both situations, women are responsible for domestic chores. Men herd cattle; women tend to take care of smaller livestock. Both irrigate.
2. Gender relations are reflected in the operation and management of the public hand pumps. Women in the matrilineal village came strongly forward; no project could succeed without women's involvement. In the patrilineal village, external agencies needed to encourage inclusive participation. This is easily achieved, especially if external agencies include women from the first steps onwards.

3. Other water tenure features were quite similar. Multiple surface and groundwater sources are used to meet multiple needs, which greatly varies by season. Public hand pumps are key for year-round water availability. The patrilineal village was somewhat wealthier and benefitted from a village reservoir as well. Other infrastructure, such as wells and scoop holes, are self-initiated. During droughts, surface water resources, wetlands and even scoop holes and wells, risk drying up. Normative frameworks settle water conflicts by prioritization. Where needed, conflicts are mediated, and agreements enforced by (male or female) chiefs. Lack of funds and other support within communities and local government appeared the main obstacle to improve climate resilience. This informed ClimBeR's initiative to walk all steps for procedural equity, as presented next.

Locally-led climate resilience in Hanzila

From early 2023 onwards, ClimBeR's LocAlly led Climate adapTation ChampION (ACTION) Grant Program walked the talk of the six steps of community participation to effectively improve climate resilience in Hanzila, a community in Monze District (Mweemba et al 2024).

1. Step 1: When the ACTION team explored options to mobilize funding and facilitate a climate resilience project, local government and the Department of Agriculture of Monze District advised implementation in Hanzila community. In the first meeting, when all members of Hanzila were invited, the project's broad mandate of increasing climate resilience by improving access to water was communicated.
2. Steps 2, 3 and 4: In the diagnostic resource mapping and identification of solutions separately by male and female groups, women proposed a second hand-pump to alleviate the pressure on the existing one during droughts. Men preferred another common technology in rural Zambia: a village reservoir for their livestock watering and irrigation. By fitting the financial framework, the ACTION team could offer a solution that would meet all these needs: a solar-powered borehole with reticulation.
3. Step 5: the ACTION team started implementation by tendering and contracting that followed both Zambia's and the ACTION Program's rules for transparency. The site of the borehole and reservoir was jointly identified by community members, the contractor and the facilitator. They considered all important criteria: groundwater availability; public land so accessible by all; as central as possible; sufficiently close to homesteads to safeguard the equipment; and respecting graveyards. When designing the reticulation to distant homesteads beyond the allocated budget, community members contributed from their own pockets. Semi-skilled works such as digging of trenches were modestly paid for. Despite unfortunate breaches and even theft during the construction of the borehole, the system was finalized and handed over to the 900 households of Hanzila. They now access clean water for drinking and other domestic uses near homes; water for livestock; and water to irrigate high-value crops.

4. Conclusions

The ClimBeR and ACTION initiatives in Kenya and Zambia generated evidence of recognitional equity that shaped procedural, distributional and intergenerational equity in water tenure. At the interface between communities and external support agencies, the process of co-design and implementation of all steps mobilized communities' assets and agency of their horizontal, age-old and yet dynamic, integrated resource governance. This overcame typical siloes in formal vertical governance that separates people from technology, (gendered) land tenure from (gendered) water tenure, domestic water uses from productive water uses. Anchoring interventions in inclusive community participation is a simple question

of timing and inclusion in the first steps, so not necessarily expensive. Yet, it is probably the single most important condition for effective and sustainable performance. This certainly applies to the documented smaller-scale, localized initiatives; the Namanga dam is more complex. In sum, inclusive community participation contributes to distributional equity by ensuring that the climate adaptation funding from powerful global stakeholders reaches those who are hit hardest. The latter rightfully claim: “Nothing about us without us”.

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