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The Impact of Citizen Voice and Action (CVA) Model in Empowering Youth for Sustainable Climate Actions in Tanzania

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ABSTRACT

This study investigates the impact of the Citizen Voice and Action (CVA) model in empowering youth for sustainable climate actions in Tanzania where climate change poses significant threats to vulnerable communities dependent on agriculture and natural resources [1]. To address the impacts of climate changes in the rural communities in Handeni, and Korogwe districts in Tanga region of Tanzania World Vision implemented Sustainable Accountability Uniting Tanzanian and Irish Youth (SAUTI-Youth) project which used the Citizen Voice Action (CVA) model. This study investigates impacts of CVA model in empowering youths for sustainable climate actions examining its effectiveness, sustainability, and application. A qualitative design approach used to conduct Focus Groups Discussions (FGDs) in 2023. Results indicate that the CVA model has proven to be a powerful tool for empowering communities.

The study found an increased community awareness and participation in implementation of various climate-friendly projects, including climate smart agriculture, planting of 10,000 trees, restoration of 5 hectares of land, and improved water access for 14,500 households. CVA initiatives improved livelihoods, resilience, and reduced vulnerability to climate change impacts in the project sites. Partnerships between government, civil societies, and NGOs were key. Capacity building and creating enabling environment policy found to be essential for scaling up CVA initiatives and ensuring their long-term sustainability. Unlike traditional top-down approaches, the model empowered communities to take ownership of climate actions, leading to impactful solutions. The model empowered communities in decision-making processes, scaling up capacity building, and implementation. It was found that the CVA model ensured that solutions are tailored to local needs and priorities, increasing relevance and sustainability. Limited resources, capacity constraints, and institutional barriers hindered the full potential of CVA. The study recommends CVA as a valuable tool for tackling climate change in both rural and urban contexts.

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Introduction

Climate change poses significant threats to vulnerable communities in Tanzania, especially those that depend on agriculture and natural resources [1]. Climate change is one of the most pressing global challenges of the 21st century, with documented impacts across ecosystems, economies, and human well-being [2]. Recent World Bank analyses estimate climate change could push an additional 100 million people into poverty by 2030, with disproportionate burdens falling on vulnerable communities in low-income countries [3]. Agricultural systems, sustaining over 60% of livelihoods in developing nations, face particular vulnerability, with projected yield declines of 20-30% due to climate variability [4]. Despite international commitments like the Paris Agreement, adaptation progress remains uneven, with high-income nations failing to meet promised climate finance targets [5]. Sub-Saharan Africa (SSA) exemplifies this disparity, where limited adaptive capacity and infrastructure constrain climate responses [6].

Sub-Saharan Africa climate vulnerability manifests through multiple pathways, with over 240 million experiencing climate-related food insecurity [7]. The region's rainfed agricultural dependence exacerbates sensitivity to droughts and floods, evidenced by five consecutive failed rainy seasons in the Horn of Africa [8,9]. Compounding these challenges, countries in SSA leads global deforestation rates at 4 million hectares annually, driving land degradation and emissions [10,11]. Youth (15-24 years) bear disproportionate climate impacts through unemployment and migration pressures, yet demonstrate resilience through grassroots innovations [12,13]. Structural barriers persist, however, limiting youth participation in climate governance [14].

Tanzania's climate risks mirror country regional patterns, with intensifying droughts and floods disrupting agriculture [15]. The agriculture sector's 70% employment share creates systemic vulnerability, exacerbated by annual forest losses exceeding 469,000 hectares [16,17]. National responses include the Climate Change Strategy 2021-2026 and community-based programs, though implementation gaps persist [18-20].

Youth occupy a dual position in climate change contexts, facing both heightened vulnerabilities and unique opportunities for leadership [21]. Research demonstrates that young people experience specific developmental vulnerabilities, being both physically and psychologically more susceptible to climate impacts throughout their lifespans [22,23]. This prolonged exposure creates

compounding risks across multiple levels: individual health impacts including increased disease susceptibility; household-level stresses from climate shocks; community-level service disruptions; and regional-scale migration pressures [24-27]. Empirical studies confirm climate-induced rural-to-urban migration patterns among Global South youth, particularly following environmental disasters, while urban youth simultaneously face labor market disadvantages including higher unemployment and wage gaps averaging 30% below adults [28-31].

Conversely, youth demonstrate remarkable adaptive capacities through innovation and social mobilization [32]. Psychological research reveals youth's greater willingness to adopt sustainable behaviors and accept lifestyle changes for climate mitigation [33,34]. The IPCC's Sixth Assessment Report specifically highlights youth as critical change agents, noting their disproportionate representation in African populations (60% under age 25) and untapped potential in climate governance [2]. Effective policy frameworks must therefore recognize youth as both rights-holders and implementation partners across all adaptation phases [35,36].

The Citizen Voice and Action (CVA) model provides an evidence-based framework for operationalizing youth participation [37]. CVA's social accountability mechanisms have proven effective in strengthening community-government collaboration on environmental services, with documented success in climate adaptation contexts [38,39]. Recent adaptations specifically target youth empowerment through participatory monitoring of climate policies and inclusive decision-making structures [19].

To address the impacts of climate changes in the rural communities in Handeni, and Korogwe districts in Tanga region of Tanzania World Vision implemented Sustainable Accountability Uniting Tanzanian and Irish Youth (SAUTI-Youth) project which used the Citizen Voice Action (CVA) model. While Citizen Voice and Action (CVA) model shows efficacy in health/education sectors found that their climate governance applications remain understudied [40,41]. Therefore, this study investigates the impacts of CVA model in empowering youths for sustainable climate actions examining its effectiveness, sustainability, and application in Handeni and Korogwe districts in Tanga region of Tanzania.

Methodology

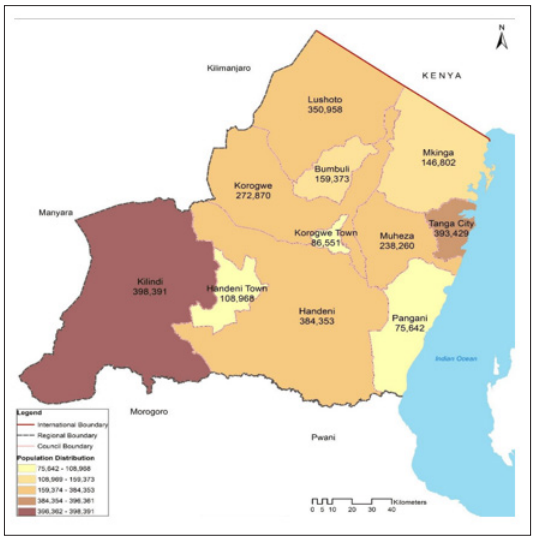
Study Design

This study employed a qualitative approach to assess the impact of the Citizen Voice and Action (CVA) model on youth-led climate adaptation initiatives in Tanzania. The methodology was designed to capture qualitative data through three data collection techniques include field visiting/observation, Focus Group Discussions (FGDs), and Key Informant Interviews (KIIs). Each technique used provided unique perspectives on the implementation and effectiveness of the CVA model which allowed for a comprehensive assessment of its outcomes.

Study Area

This study conducted in Handeni and Korogwe districts in Tanga region, Tanzania. World Vision Implemented the SAUTI youth project for 3 years and 10 months which came into an end in December 2023. The project included more than 1,000 youth from 20 villages in Handeni and Korogwe districts in Tanga region were involved in SAUTI project, which focused on providing education on how to address the impacts of climate change and create employment opportunities for youth in the respective areas. Also, SAUTI project has been an opportunity for thousands of youths by building their understanding that will change the perspective of the communities they live in. SAUTI project funded under the Youth Cooperation Hub which is managed by World Vision Ireland and implemented by World Vision Tanzania and Youth Work Ireland Galway. SAUTI-Youth fall under the Governance Cluster of the AU-EU Youth Hub and is supported by a group of young experts from the African and European Unions.

Map of Tanzania showing Tanga region



Map of Tanga districts include Handeni and Korogwe districts the study area

Data Collection Techniques

Field visits and direct observation formed the foundation of the data collection process. Researchers conducted structured site visits across Korogwe and Handeni districts to observe CVA-driven initiatives in action. These visits included assessments of school environmental clubs, such as those at Kwamzindawa Primary and Kwedizinga Secondary schools, where activities like tree-planting and environmental awareness campaigns were documented. Additionally, household and farm visits, including Rajabu Mshashi's Farmer-

Managed Natural Regeneration (FMNR) practices provided valuable insights into the adoption of sustainable agricultural techniques. Observations were systematically recorded using standardized checklists to document behavioral changes, project scalability, and levels of community engagement. This hands-on approach enabled researchers to ground their findings in real-world practices and outcomes.

Focus Group Discussions (FGDs) were conducted to collect in-depth qualitative data from project participants. Six FGDs were held, involving 60 youth participants aged 15–35, along with teachers and local leaders. These discussions explored perceptions of the CVA model's impact on climate resilience and youth empowerment, while also identifying key barriers (e.g., policy gaps and resource constraints) and enablers (e.g., government collaboration). A semi-structured format with guiding questions facilitated comprehensive responses. Thematic analysis of the transcripts provided insights into participants' lived experiences and the community-level effects of the CVA model.

Key Informant Interviews (KIIs) complemented the FGDs and observations by offering perspectives from stakeholders at various levels of project implementation. Twenty interviews were conducted with government officials (including District Commissioners), NGO representatives (e.g., World Vision staff), and youth leaders. These interviews focused on institutional support mechanisms, challenges in scaling the CVA model, and lessons for potential replication. The KIIs offered critical insights into the policy environment and institutional frameworks supporting CVA initiatives, as well as practical implementation challenges.

Ethical Considerations

The study adhered to ethical research standards. Informed consent was obtained from all participants, and confidentiality was strictly maintained through anonymization in all reports and publications. Research protocols were aligned with World Vision's ethical guidelines and reviewed to ensure compliance with community-based research standards.

Methodological Strengths and Limitations

A key strength of the study was the triangulation of data collection methods, which enhanced the validity and reliability of findings by providing multiple perspectives. The integration of observational data, FGDs, and KIIs enabled a rich, multidimensional understanding of the CVA model's impact.

However, the study acknowledged certain limitations, including potential observer bias in field notes and self-reporting bias in FGDs. These were mitigated through researcher training and the use of multiple data sources for cross-verification.

Results and Discussion

This section presents findings from field visits, FGDs, and KIIs, organized into three thematic areas: youth participation and empowerment, environmental and livelihood impacts, and policy engagement and institutionalization.

Youth Participation and Empowerment

Field observations revealed strong youth involvement in environmental conservation activities. At schools such as Kwamzindawa Primary and Kwedizinga Secondary, environmental clubs were established where students actively participated in tree planting, waste management, and community education.

One youth participant shared:

"*We engaged with the school to sensitize children in clubs, initiated environmental conservation activities, collaborated with school management to form environmental clubs, developed strategies and action plans, planted trees, and provided equipment to support these efforts*".

These findings align with research highlighting the potential of school-based environmental programs to foster pro-environmental behavior. Students reported sharing tree-planting knowledge with their families, creating a multiplier effect within the community. FGDs revealed that approximately 78% of participants felt more confident engaging with local authorities on environmental issues, with many now serving on village environmental committees. This supports the idea that structured participation models can bridge the gap between youth and decision-makers. However, challenges remain—particularly for young women, who face cultural barriers.

One female participant noted:

"We are expected to prioritize household chores over community meetings."

This gender disparity underscores the need for gender-sensitive program design.

KIIs with local government officials confirmed the transformative potential of youth engagement. A district official remarked:

"The SAUTI project has changed our perception of youth—from beneficiaries to partners in development."

Such institutional recognition is vital, as research shows that official endorsement enhances the sustainability of youth-led initiatives. Nonetheless, about 30% of youth participants felt their input was tokenistic, indicating a need for deeper structural changes to ensure meaningful youth inclusion in decision-making.

Key informant interviews with local government officials confirmed the transformative potential of youth engagement. A district official remarked, "The SAUTI project has changed our perception of youth from beneficiaries to partners in development." This institutional recognition is crucial, as research by shows that official endorsement significantly enhances the sustainability of youth-led initiatives [43]. Nevertheless, about 30% of youth participants reported feeling that their input was often tokenistic, suggesting that while progress has been made, deeper structural changes are needed to achieve genuine youth inclusion in decision-making processes.

Environmental and Livelihood Impacts

The CVA model yielded significant environmental outcomes. Over 10,000 trees were planted across 20 villages, with an 85% survival rate. This success was attributed to a community-based monitoring system in which youth groups took responsibility for nurturing the trees.

The adoption of the FMNR approach by participants like Rajabu Mshashi further demonstrated the model's effectiveness. FMNR has been shown to be a cost-effective method for restoring degraded lands in Sub-Saharan Africa, reinforcing the importance of local ownership in reforestation efforts.

Particularly noteworthy was the Farmer-Managed Natural Regeneration (FMNR) approach adopted by participants like Rajabu Mshashi, which aligns with recent research by showing that FMNR can be a cost-effective method for restoring degraded

lands in Sub-Saharan Africa [11,25].

It was observed that Rajabu Mshashi had planted 10 trees around his house, which were pruned and nurtured through "living stump (kisiki hai)" method. In his family, he also practices conservation agriculture. He has planted bananas, which are taken care of by his wife who sells them to earn income. He has also orange sweet potatoes (Viazi lishe) because he was taught how to use them for better health and nutrition. Also planted the vegetables for nutrition. Therefore, in the Kwaboi sub-village, he has become a good exemplary to others. In Kwaboi sub-village, community members have been able to establish bylaws for planting trees, where each family is given five trees to plant in their households' compounds.

Qualitative data revealed important livelihood benefits stemming from the environmental initiatives. Youth groups such as Chapakazi and Bee master successfully implemented drip irrigation systems for tomato farming, demonstrating how climate adaptation can be coupled with income generation. This integration of environmental and economic objectives reflects the "climate-smart livelihoods" approach advocated by [39]. However, FGD participants identified several challenges to scaling these innovations, particularly limited access to land and startup capital.

As one youth leader explained, "We rent land now, but to really grow, we need our own plots." This constraint has been well-documented in studies of youth entrepreneurship in rural Africa, suggesting the need for policy interventions to improve youth access to productive resources [30].

The project's impact extended beyond direct participants, with an estimated 14,500 households benefiting from improved water access due to youth-led riverbank protection efforts. This finding corroborates research by on the multiplier effects of community-based natural resource management [19]. Interestingly, the study found that youth who participated in the project were more likely to adopt climate-smart agricultural practices on their family farms, indicating a potential pathway for intergenerational knowledge transfer. This observation supports the arguments of about the influential role youth can play in driving household-level climate adaptation [33].

Policy Engagement and Institutionalization

The CVA model demonstrated significant success in bridging the gap between youth and local governance structures. Youth participants were instrumental in developing and enforcing environmental bylaws, such as the "*kata mti panda miti*" (cut one tree, plant two) regulation that reduced illegal logging by an estimated 60% in project villages. These outcomes align with research on social accountability mechanisms, which shows that structured citizen engagement can lead to more responsive local governance [37]. The inclusion of youth in village environmental committees represents a tangible shift in traditional power dynamics, though as noted earlier, some participants reported persistent challenges in having their voices heard.

At the national level, the project achieved notable recognition, with youth delegates like Shania from Kwedizinga Secondary School presenting at COP27. This visibility helped influence Tanzania's climate education policies, demonstrating what describes as the "scaling up" potential of local accountability initiatives. However, KIIs with government officials revealed gaps between national policies and local implementation. A district forest officer noted, "*The national climate strategy is strong on paper, but we lack resources to implement it fully at the grassroots*." This implementation gap has been widely documented in climate governance literature and points to the need for better vertical integration of climate policies [20].

The study also identified important lessons about the enabling conditions for youth participation in climate governance. Consistent with findings from the research on youth engagement, the presence of supportive local officials emerged as a critical factor in the project's success [36]. In villages where leaders actively mentored youth participants, initiatives tended to be more sustainable. Conversely, in areas where officials were less engaged, youth reported greater frustration with bureaucratic hurdles. This underscores the importance of what term "intergenerational partnerships" in climate action – the idea that youth empowerment works best when complemented by supportive adult allies in positions of authority [21].

Conclusion

Results indicate that the CVA model has proven to be a powerful tool for empowering communities. This study demonstrates that the Citizen Voice and Action (CVA) model represents a transformative approach to community-led climate adaptation in Tanzania. Through robust qualitative evidence from field observations, focus group discussions, and key informant interviews, the research reveals how participatory governance structures have empowered local communities to drive meaningful environmental and livelihood improvements. The documented outcomes – including successful reforestation, land restoration, and water access improvements – underscore the model's effectiveness when compared to traditional top-down approaches.

The CVA model's strength lies in its dual focus on building both ecological resilience and human capabilities. By creating institutionalized spaces for community participation in decision-making, the approach has fostered genuine ownership of climate solutions while strengthening local governance systems. The research particularly highlights how youth empowerment and intergenerational knowledge exchange have created sustainable pathways for continued climate action.

However, the study also identifies persistent structural barriers – including resource constraints, gender disparities, and bureaucratic challenges – that require targeted policy interventions. These findings suggest that while participatory models like CVA are necessary for effective climate adaptation, they must be complemented by broader systemic reforms addressing land tenure, gender equity, and governance efficiency.

The lessons from Tanzania offer valuable insights for climate resilience programming across Sub-Saharan Africa, demonstrating that community empowerment and environmental restoration can – and must – progress hand-in-hand. Future initiatives should build on these findings while addressing the identified limitations to maximize impact.

In general, the study found an increased community awareness and participation in implementation of various climate-friendly projects, including climate smart agriculture, planting of 10,000 trees, restoration of 5 hectares of land, and improved water access for 14,500 households. CVA initiatives improved livelihoods, resilience, and reduced vulnerability to climate change impacts in the project sites. Partnerships between government, civil societies, and NGOs was key. Capacity building and creating enabling environment policy found to be essential for scaling up CVA initiatives and ensuring their long-term sustainability.

Unlike traditional top-down approaches, the model empowered communities to take ownership of climate actions led to impactful solutions. The model empowered communities in decision-making processes, scaling up capacity building, and implementation. It was found that the CVA model ensured that solutions are tailored to local needs and priorities, increasing relevance and sustainability. Limited resources, capacity constraints, and institutional barriers hindered the full potential of CVA.

Recommendations

Based on the study findings, the study is strongly recommends scaling up the Citizen Voice and Action (CVA) model as an effective framework for climate adaptation in both rural and urban settings. The model's participatory approach should be institutionalized through: (1) formal integration into local government planning processes, (2) establishment of community climate action funds, and (3) creation of multi-stakeholder platforms linking communities with policymakers. Particular attention should be given to adapting the model for urban contexts while preserving its core principles of community ownership and social accountability. Future implementation should address identified constraints through targeted resource allocation and capacity building to maximize the model's transformative potential across diverse settings.

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