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## The Role of Civil Society Organisations in Promoting Climate Resilience and Sustainable Development in Bamenda I Municipality

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### Abstract

The study examines the role of Civil Society Organizations in promoting climate resilience and sustainable development in Bamenda I Municipality. A mixed method, combining qualitative and quantitative methodologies, was used. Primary and secondary sources of data collection were used. Semi-structured questionnaires, an in-depth interview guide and observation were used to collect primary data from 150 respondents, selected by simple random sampling. Descriptive statistics were used for data analysis. Results on major climate variability challenges were found to be unpredictable rainfall (54, 36%), water scarcity (50, 33.3%), and soil erosion (32, 21.3%). Findings on their role in climate resilience and adaptability indicate that 60 (40%) of the respondents confirm their efforts in assisting the community in adopting climate-smart agricultural practices, while 90 (60%) of the respondents agreed that they have raised knowledge of climate change awareness in the Municipality. Results on their challenges revealed several obstacles, including inadequate finance (120, or 80%), political unpredictability (105, or 70%), and limited access to physical resources (120, or 80%). The stability of their operational environment, access to physical resources, and financial sufficiency all have a significant impact on Civil Society Organisations' capacity to foster sustainable development and build climate resilience.

**Keywords:** Bamenda I Municipality, Climate Resilience, Civil Society Organisations, Role, Sustainable Development.

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## 1. Introduction

Global ecosystems, economies, and cultures are all impacted by climate change, a 21st-century problem caused by human emissions that exacerbate heatwaves, floods, and droughts (Mariappan et al., 2023; Hussain et al., 2024; Lal, 2026). Climate change is expected to cause an additional 250,000 fatalities per year between 2030 and 2050 (Crimmins et al., 2016; Akhtar et al., 2023; Rao, 2025; Muslim & Susami, 2026; Djoher & Ouahiba, 2026). It disproportionately affects vulnerable, low-income communities, negatively impacts agricultural output, and destroys infrastructure due to extreme weather (WHO, 2023). The United Nations Sixth Assessment Report of IPCC (Intergovernmental Panel on Climate Change) released in 2021 and 2022 (Pörtner et al., 2022), warned that humans are dramatically overhauling (overtake) Earth 's climate (Valavanidis, 2022). The average surface temperature on Earth has already risen by 1.1 °C since preindustrial times (1850-1900) (VDoody, 2023), thanks to human inputs of heat-trapping gases (greenhouse gases) to the atmosphere, particularly carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) (Valavanidis, 2022). This global warming has shifted the flow of energy around the Earth, altering weather patterns, raising sea levels and turning past extreme weather events into new normals (Valavanidis, 2022). Adopting realistic methods for climate resilience and sustainable development has become a top worldwide issue (Majlingova & Kádár, 2025).

Climate change is leading to more frequent and intense extreme weather occurrences globally (Seneviratne et al., 2021; Valavanidis, 2022; WHO, 2023). However, because of their geographical location, reliance on climate-sensitive natural resources, and development gaps (United Nations, 2016), developing countries, particularly low-income countries, are the most exposed to climate threats (Nath & Behera, 2011). Climate hazards can undo years of development progress in some countries (WHO, 2023), by raising poverty, exacerbating inequality, increasing food insecurity, and causing health problems, among other factors (Wang et al., 2025). Furthermore, climate issues have different effects on individuals and groups within countries (WHO, 2023). Deep socioeconomic disparities have a considerable impact on these outcomes (WHO, 2023). As a result, the most disadvantaged segments of society are disproportionately exposed to and vulnerable to climate hazards (Thomas et al. 2019), which are especially harmful to them.

The adoption of the 2030 Agenda for Sustainable Development (Khan, 2016) demonstrates universal consensus and provides a rare opportunity to improve climate resilience for sustainable development (United Nations, 2026). Addressing the systemic inequities that perpetuate poverty, marginalisation, and social exclusion, which increase vulnerability to climate hazards (Carpentier & Braun, 2020). To be effective, disaster risk reduction and management, social protection, and adaptation strategies must all be integrated into a broader development framework (Rana et al., 2022) that gradually leads to the empowerment of today's disadvantaged groups by improving their asset positions and access to input and product markets. This could be accomplished by increasing their access to high-quality basic services and addressing the attitudes that lead to their social and political isolation (Nyathi et al., 2024).

Due to its low capacity for adaptation and heavy reliance on climate-sensitive industries, especially agriculture and water resources (Omokpariola et al., 2025), Africa is widely acknowledged as one of the continent's most vulnerable to climate change (African Development Bank, 2019). The continent experiences disproportionate effects, including rising temperatures that are quicker than the global average, even though it contributes less than 4% of global greenhouse gas emissions (WMO, 2024). Millions of people's livelihoods are severely impacted by climate-related issues throughout Africa's different climatic zones, which range from tropical rainforests to desert and

semi-arid regions (African Development Bank, 2025). Severe flooding, extended droughts, and other extreme weather conditions, and unpredictable rainy seasons are being caused by climate change in Africa, which is drastically changing rainfall patterns (Ahenkan, 2026). Over 95% of Sub-Saharan agriculture is rain-fed, making it extremely sensitive, and these changes have an impact on livelihoods, agriculture, and water security over the entire continent (Ahenkan, 2026).

According to the International Monetary Fund (IMF), Cameroon is one of the country's most sensitive to the negative consequences of climate change (Regulations, 2024), putting its environmental sustainability and socioeconomic advancement at risk. Over the last three decades, the frequency of extreme weather events such as severe droughts, floods, and landslides has grown across Cameroon (Saha & Tchindjang, 2017), causing major harm to both people and the economy (IMF, 2023). In Cameroon, climate-induced disasters, including bushfires and torrential floods (Nkengla-Asi et al., 2017), are becoming increasingly regular, causing significant human and socioeconomic damage. By bridging the gap between local communities and government, Cameroonian Civil Society Organisations (CSOs) are actively promoting climate resilience and sustainable development (Esone, 2020), especially considering the nation's growing climate concerns. As of 2025–2026, these organisations, which include neighbourhood NGOs and community networks, are concentrating on community-based adaptation programs, advocacy, and climate finance (Green Accountability Platform, 2026). However, resolving these issues calls for coordinated efforts from all parties involved to offer the required assistance and establish a supportive environment for their operations. Cameroon may increase its climate change resistance and achieve sustainable development by promoting collaboration and merging traditional knowledge with scientific study.

The Northwest Region of Cameroon is a landslide hotspot, with frequent mudflows and landslides, notably along the steep slopes of the Cameroon Volcanic Line (Bang, 2022). Heavy, prolonged rains exacerbate these conditions (Tume et al. 2018). The Region's high topography and rapid, often unplanned urban growth expose inhabitants to climate-related hazards (Tume et al., 2025), including landslides, flooding, and acute water shortages. Because it relies on agriculture and the informal economy, the community is particularly vulnerable to economic disruptions caused by climate change. Reduced agricultural yields are common among farmers in the area, restricting their income and worsening poverty. The loss of fertile soil also has an impact on water quality because sediments enter rivers and streams, causing siltation and lowering the amount of water available for domestic and agricultural use. Civil Society Organisations (CSOs) in the Northwest Region have actively addressed climate change issues through a variety of community-based initiatives.

Despite legislative assurances, access to credible information remains a challenge for CSOs, particularly in a climate where there is a strong culture of distrust toward them (Esone, 2020). They face significant infrastructure shortfalls in rural areas, a lack of local philanthropy, and severe financial instability (Evine, 2024). CSOs operating in distant or crisis-affected areas face additional hurdles, including inadequate infrastructure, limited Internet connectivity, and a lack of government participation. The ongoing Anglophone armed conflict<sup>3</sup>, which started in 2016 to date (Shu, 2020), limiting the operations of CSOs, presents security risks and reduces civic space, is

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<sup>3</sup> The Anglophone crisis in Cameroon is a long-running civil war between separatists and the central government that started as protests in 2016 and turned violent in 2017 (Shu, 2020). In the English-speaking Northwest and Southwest, armed organisations aim to establish an independent state called Ambazonia (Awasom, 2020). Over 6,000 people have died because of the violence, and there have been numerous human rights abuses and large-scale displacement (Awasom, 2020).

identified as the major challenge affecting the contribution of CSOs in promoting sustainable development initiatives in the Region. These issues are worsened by weak institutional frameworks, top-down government agendas, and deficiencies in internal management and leadership (Esone, 2020).

Civil Society Organisations (CSOs) have actively participated in promoting climate resilience and sustainable development initiatives such as community-based disaster risk management, sustainable agricultural approaches, and forestry in Bamenda I Municipality (UNDP, 2024). Civil Society Organisations (CSOs) play an important role in achieving the Sustainable Development Goals (SDGs) (United Nations, 2022) by promoting climate resilience, linking local needs to international policy, and holding governments accountable (African Civil Society Circle (ACSC, 2016). They promote sustainable communities (SDG 11), bolster climate action (SDG 13), and support vulnerable groups by organising grassroots projects and fostering important public discourse (ACSC, 2016). Given this, the goal of this research is to investigate the role of CSOs in promoting climate resilience and sustainable development in Bamenda I Municipality. Developing tailored interventions that increase climate resilience and sustainable development in communities requires an understanding of (1) the major climate variability challenges affecting Bamenda I Municipality, (2) the role of CSOs in climate resilience and adaptability, and (3) the challenges of CSOs in promoting climate resilience and sustainable development in Bamenda I Municipality. The paper then moves on to the research methodology, findings, discussion, and conclusion.

## **2. Methods**

### **2.1 Study Area**

The study was carried out in Bamenda I Municipality, one of the three Municipalities that make up the city of Bamenda in the Mezam Division of Cameroon's Northwest Region (Kinyui et al., 2025) (Figure 1). It lies between longitudes 10° 8" and 10° 17" east of the Greenwich Meridian and latitudes 5° 51" and 5° 58" north of the equator (Sedrique & Nfor, 2021). The Municipality's 13 quarters, Abangoh, Achichum, Alahnting, Aningdoh, Banche, Nkar, Ayaba, Ntanche, Ntafebuh, Nta'afi, Moyo, Keneleri, and Abumuchi (Alakeh et al., 2024), have a combined surface area of almost 110 km<sup>2</sup> and are in the humid tropical climate zone (Sedrique & Nfor, 2021). This municipality is located 366 miles northwest of Cameroon's capital, near the entrance to Bamenda town (Alakeh et al., 2024). Its elevation ranges between 1269 and 2606 meters above sea level (Sedrique and Nfor, 2021). Bamenda I Municipality's limits are as follows: Mbatu Village to the west, Nkwen and Mankon to the north, Akum and Awing to the south, and Nja and Balikumbat to the east (Bamenda I Council Flyer, 2018; Samba et al., 2020). According to the Council Development Plan (PNDP, 2021), Bamenda I Municipality is predicted to have 62,000 residents, of which roughly 60% will be young people. This population is concentrated in the urban areas of Abangoh, Asana, Anindoh, Blue Moon, Ntanche, Abumuchi through Akumbele, Tenefor, Achichem, lower Banche, Fingengu, and Nyi-tenefor (PNDP, 2021). The Municipality has two distinct seasons, the dry season and the rainy season, and a typical tropical climate, according to Sedrique and Nfor (2021). The wet season begins between mid-March and mid-October, while the dry season begins between mid-October and mid-March (Sedrique & Nfor, 2021). The Bamenda I Municipality hosts a wide range of domestic and foreign development actors who work with Municipal Councils on social services, infrastructure, and economic development (PNDP, 2021). These players have a critical role in carrying out development initiatives, especially in rural and peri-urban areas where they supply funds and skills (PNDP, 2021). This made it ideal for this study to be conducted in this Municipality in the Mezam Division of the Northwest Region of Cameroon.



Organisations, Cultural Development Organisations, Common Initiative Groups (CIGs), and Cooperative Societies active in Bamenda I Municipality, which comprised the study population. The survey also included stakeholders affected by or involved in Bamenda I Municipality's climate resilience and sustainable development activities.

#### **2.4. Sampling Procedure**

The study used a sample of 150 respondents. For the semi-structured interview, 50 CSO personnel and 100 community people from Bamenda I Municipality were chosen at random. Twenty key stakeholders, including CSO leaders, local government members, and environmental professionals, were specifically chosen for in-depth interviews. They were chosen based on their participation in promoting climate resilience and sustainable development in Bamenda I Municipality.

#### **2.5. Data Sources**

Primary and secondary data sources were used. Primary data was gathered by observation, in-depth interviews for qualitative data, and semi-structured interviews for quantitative data. Government records, books, journal articles, reports and publications from Civil Society Organisations, and online publications are examples of secondary data sources.

#### **2.6. Data Collection**

To get quantitative data, community people and CSO workers filled out a semi-structured questionnaire. The survey instrument consisted of four parts. The first section gathered demographic information from respondents, including age, gender, marital status, and educational level. The second portion is dedicated to gathering information regarding the key challenges of climatic variability in Bamenda I Municipality. The survey's last component collects data on how civil society organisations in Bamenda I Municipality contribute to climate change resilience and adaptability. The fourth question seeks information regarding the obstacles and limitations that CSOs encounter.

Key stakeholders, including CSO leaders, local government representatives, environmental experts, and community leaders, were extensively interviewed. To guarantee that all important problems are addressed while also allowing for flexibility in responses, a complete interview guide with open-ended questions was created in accordance with the research objectives. The interviews were recorded with the participants' agreement and later transcribed for further study. Contextual and nonverbal information was gathered through observations of community gatherings, CSO activities, and project implementation sites. This strategy gave practical insights into community involvement, CSO operations, and climate resilience project delivery. An observation checklist was created to ensure systematic data collection on subjects such as participation rates, interaction dynamics, and the effectiveness of deployed strategies.

#### **2.7. Validity and Reliability**

By creating data collection techniques based on a thorough literature search and expert consultation, the study improves validity while also guaranteeing that relevant topics are effectively covered. External validity was improved by employing a representative sample and providing extensive descriptions of the research context and methodology for prospective replication in other contexts, but internal validity was improved by adopting a mixed methods approach and triangulating data sources. Consistent data collection processes, standardised tools, and extensive staff training all contributed to the study's reliability. Inter-coder reliability (ICR)

was maintained by allowing various researchers to independently code qualitative data and settle disagreements through conversation. To ensure consistency in results, the same survey was given to a group of participants over several time periods to examine test-retest reliability. Quantitative data is thoroughly cleansed and checked to ensure accuracy and error-free processing. Together, these techniques ensure that the study's findings are legitimate and reliable, laying the groundwork for conclusions and recommendations.

## **2.8. Method of Data Analysis**

The study included both quantitative and qualitative data analysis methods. The data was examined using Microsoft Excel version 13 and SPSS version 25. The quantitative data were summarised and described using descriptive statistics, and the findings were presented in the form of tables and charts. This study presented an overview of the sample's important characteristics, including demographic information, climate change challenges, and CSO contributions. The qualitative data from the respondents was verbatim transcribed as soon as the interviews were completed. The data was then coded and analysed. After triangulating the data, the researchers sought parallels and discrepancies before presenting their conclusions.

## **2.10. Ethical Considerations**

The proper review board received ethical approval, and cultural sensitivity was maintained throughout the endeavour. To protect participants' privacy and anonymity, as well as to minimise potential harm or discomfort, the researchers get informed consent. To ensure that participants and communities benefit from the research, we advocate transparency and honesty in reporting findings. To ensure that the findings were reported truthfully and impartially, the study team disclosed and managed any potential conflicts of interest, and ethical concerns drove data processing and analysis. The study was to be conducted in strict accordance with the most demanding ethical standards, protecting participants while also fostering collaboration and confidence.

# **3. Results**

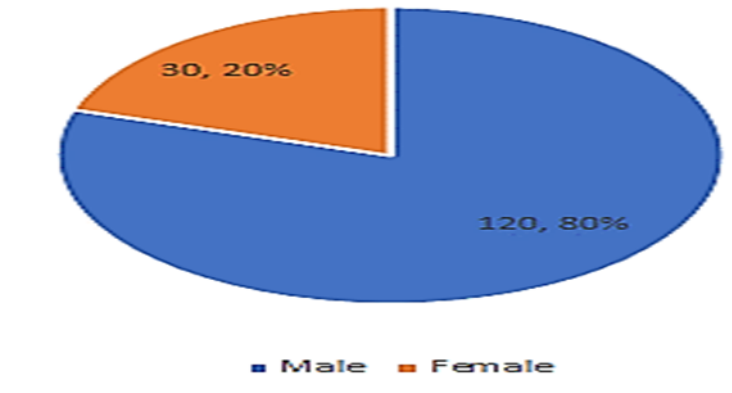
## **3.1. Demographic Information**

This section begins with a study of the respondents' demographic information. The factors used in the analysis were age, gender, marital status, and educational achievement.

### **3.1.1. Sex**

Figure 2 depicts the sex distribution of study participants: 120 (80%) were men, whereas only 30 (20%) were women. The demographic makeup of survey respondents, or more profound gender dynamics regarding community involvement and representation in climate-related actions, could be to blame for this significant gender gap. This shows that men in Bamenda I Municipality are more engaged than women in promoting climate resilience and sustainable development.

**Figure 2: Sex Distribution of Respondents**

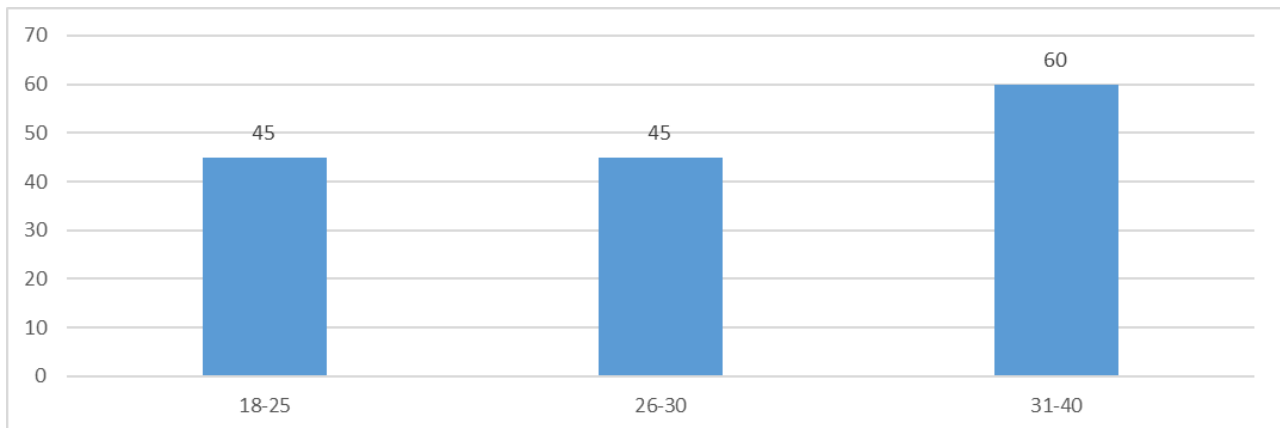


Source: *Fieldwork (2025)*

### 3.1.2. Age

According to Figure 3's results on the age distribution of respondents, the majority of participants belong to the youth and early working-age population; 30% were between the ages of 18 and 25, another 30% were between the ages of 26 and 30, and the remaining 40% were between the ages of 31 and 40. Young people are increasingly recognised as change agents rather than passive victims, a relatively young sample is extremely advantageous for fostering climate resilience and sustainable development. They provide new insights, digital know-how, and creative, unconventional solutions needed to confront current systems and close climatic gaps.

**Figure 3: Age Distribution of Respondents**



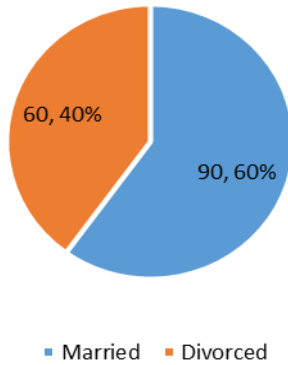
Source: *Fieldwork (2025)*

### 3.1.3. Marital Status

Most respondents, 90 (60%), were married, whereas 60 (40%) were divorced, according to Figure 4 on marital status. This distribution may reveal local socioeconomic dynamics that may have an impact on single-headed families, especially those headed by women, who are far more susceptible to climate unpredictability due to lower incomes, restricted access to assets, and diminished adaptation capability. Due to their reliance on agriculture, less crop diversification, and lack of

financial resources to deal with shocks, these households frequently experience greater levels of food insecurity.

**Figure 4:** *Marital Status of Respondents*

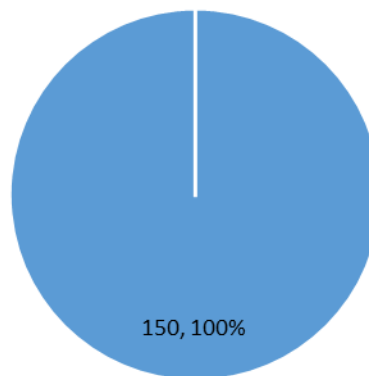


**Source:** *Fieldwork (2025)*

### 3.1.4 Level of Education

All participants (100%) reported having completed postsecondary education, according to Figure 5 on respondents' educational attainment. This implies that a population with a high level of education plays a crucial role in promoting climate resilience and sustainable development by improving adaptive capacity, raising awareness of climate unpredictability, and boosting participation in CSOs initiatives. Higher education levels are strongly linked to a deeper comprehension of climate science and a stronger concern for the environment, which in turn encourages proactive adaptation and mitigation measures (World Bank, 2024).

**Figure 5:** *Gender Distribution of Respondents*



**Source:** *Fieldwork (2025)*

### 3.2. Major Climate Variability Challenges Affecting Bamenda I Municipality

The researchers looked at issues such as rainfall patterns, drought frequency, flood occurrence, temperature change, agricultural consequences, soil erosion, landslides, water access, climate problems, and community preparedness to accomplish this goal.

Residents of Bamenda I Municipality clearly perceive growing climatic unpredictability, as seen in Table 1 on significant climate variability challenges. Only 30 respondents (20%) thought rainfall patterns were stable and predictable, whereas 120 respondents (80%) said they had gotten more unpredictable rainfall. In addition, 90 (60%) reported no substantial change in the frequency of droughts, although a sizable portion, 30 (20%), is still undecided, which reflects the unpredictability and variety of regional weather patterns. Flooding is a divisive issue: 30 (20%) believe it occurs less frequently, 45 (30%) believe it occurs more frequently, and another 45 (30%) have noticed significant changes (but these are not articulated). Furthermore, 60 (40%) reported a slight increase in temperature, whereas 90 (60%) reported a significant increase. These figures reflect a broader feeling of environmental instability in the community, which may complicate both short- and long-term planning.

There appears to be a considerable influence on agricultural activity. A notable 105 (70%) indicated at least some disruption to agriculture because of climatic variability, with just 45 (30%) reporting a significant negative impact. There are numerous reports of soil erosion, with 60 people (40%) categorising it as either major or minor. The fact that 75 (50%) of respondents confirmed experiencing landslides on occasion, 60 (40%) disagreed, and 15 (10%) were unsure emphasises the environmental impact on both land and community infrastructure. One of the most pressing effects was water scarcity, with 120 persons (80%) saying that their access to water had significantly decreased. This is consistent with other indicators, including soil degradation and unpredictable rainfall.

According to the data (Table 1), Bamenda I Municipality's main climate-related issues are soil erosion (32; 21.3%), water scarcity (50; 33.3%), and unpredictable rainfall (54; 36%). Most participants, 60 (40%), were completely unprepared, while 45 (30%) were badly and moderately prepared, demonstrating that community readiness remains quite low. According to Pienaah et al. (2025), a cycle of high vulnerability is created when communities are unable to effectively foresee, cope with, or recover from climate-related disasters due to a lack of preparedness. Communities suffer more economic, social, and bodily harm without proactive, locally led preparedness efforts, and they frequently find it difficult to adjust to slow-onset changes or extreme weather disasters (Pienaah et al., 2025). These observations give CSOs and legislators a solid basis for giving resilience-building projects top priority, especially in the areas of agriculture, water resource management, and disaster preparedness in Bamenda I Municipality.

**Table 1: Major Climate Change Variability Challenges in Bamenda I Municipality**

<b>Variable</b>	<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
<b>Rainfall Patterns</b>	Consistent and predictable	30	20.00%
	Erratic and unpredictable	120	80.00%
<b>Drought Frequency</b>	More frequent	15	10.00%
	Less frequent	15	10.00%
	No change	90	60.00%
	Don't know	30	20.00%
<b>Flood Occurrence</b>	More common	45	30.00%
	Less common	30	20.00%
	Significant change	45	30.00%
	Not applicable	30	20.00%
<b>Temperature Change</b>	Increased significantly	90	60.00%
	Increased slightly	60	40.00%
<b>Impact on Agriculture</b>	Significant negative impact	45	30.00%
	Slight negative impact	105	70.00%
<b>Soil Erosion</b>	Major problem	60	40.00%
	Minor problem	60	40.00%
	Not a problem	15	10.00%
	Don't know	15	10.00%
<b>Landslides</b>	Yes, occasionally	75	50.00%
	No	60	40.00%
	Unsure	15	10.00%
<b>Water Access</b>	Reduced significantly	120	80.00%
	Reduced slightly	15	10.00%
	Improved	15	10.00%
<b>Climate Challenges</b>	Erratic rainfall	54	36.00%
	Floods	7	4.70%
	Soil erosion	32	21.30%
	Landslides	7	4.70%
	Water shortages	50	33.30%
<b>Community Preparedness</b>	Not prepared at all	60	40.00%
	Poorly prepared	45	30.00%
	Moderately prepared	45	30.00%

### **3.3. Role of CSOs in Climate Change Resilience and Adaptability in Bamenda I Municipality.**

To examine the role of CSOs in climate change resilience and adaptability, we first examined the following: awareness of climate change issues; adoption of climate-smart agriculture; access to

resources for climate adaptation; coping with droughts; reducing vulnerability to floods; strengthening participation in climate solutions; promoting sustainable water management techniques; improving livelihood resilience; collaboration with other organisations; and sustainability of initiatives.

Table 2 shows that CSOs have significantly improved climate resilience in the Bamenda I Municipality. Most respondents agreed, and 60, or 40%, strongly agreed that CSOs have raised awareness of the implications of climate change in the Bamenda I Municipality. According to this, Civil Society Organisations (CSOs) have been crucial in promoting climate resilience through raising awareness of hazards, empowering marginalised people, and promoting changes in perspective toward sustainability (Lierop, 2024). Through informal education and media channels, they serve as information brokers and policy influencers, bridging the gap between scientific discoveries and popular understanding (Lierop, 2024). The results for the implementation of climate-smart agriculture show that 45 (30%) agreed and were impartial, while 60 (40%) strongly agreed. However, the overall picture indicates substantial advances in resilient farming systems. In-depth interviews provide evidence to support the following facts:

CSOs discussed concrete activities such as reforestation, urban regenerative agriculture, and renewable energy education. Another CSO member reported on renewable energy promotion, sustainable agriculture, and activism. In a similar vein, another member mentioned plans for climate-smart agriculture, trash management, and solar energy promotion.

With 75 (50%) agreeing, 45 (30%) strongly agreeing, and 30 (20%) neutral, the Bamenda I Municipality's access to climate adaptation resources appears to have improved. The findings showed that while 30 (20%) disagreed, most participants agreed with 60 (40%) and were neutral about CSOs' role in helping the Bamenda I Municipality deal with drought. This implies that drought treatments are not yet effective or that their results are not readily apparent, necessitating more careful observation and possible program improvement. Regarding flood vulnerability, the results showed that 45 (30%) strongly agreed and 60 (40%) agreed, respectively. Most participants, 90 (60%), agreed, with 60 (40%) strongly agreeing that civil society organisations in Bamenda I Municipality had increased participation in climate solutions. This means that CSOs have an important role in increasing participation in climate solutions by creating accountability, amplifying marginalised people's perspectives, and bridging the gap between local realities and national/international policy (Sack et al., 2024). CSOs have shifted from passive information consumers to active partners in climate planning by leveraging grassroots networks to ensure that climate adaptation and mitigation policies are inclusive and context-sensitive (Sack et al., 2024). Half of the sampled population, 75 (50%), highly agreed, 60 (40%) agreed, and 15 (10%) disagreed with the findings regarding the promotion of sustainable water management approaches.

According to The Sustainable Development Goals Report 2025, CSOs, including non-governmental organisations (NGOs), community-based organisations, and indigenous organisations, play a crucial role in sustainable water management through the application, promotion, and upkeep of cutting-edge methods. By concentrating on locally driven solutions that boost supply, improve water quality, and guarantee long-term sustainability, they close gaps between the public and private sectors (The Sustainable Development Goals Report 2025). Additionally, 30 (20%) strongly agreed that CSOs have strengthened livelihood resilience, while 75 (50%) agreed, and 45 (30%) remained neutral, suggesting that they bridge the gap between local communities and state services by fostering adaptive capacities through advocacy, training, and financial support. Of the participants, 45 (30%) agreed, and 105 (70%) strongly agreed that

CSOs work well with other organisations. This implies that they collaborate across sectors to close the gap between grassroots implementation and policy. Above all, 30 participants (20%) agreed, and 120 participants (80%) strongly agreed that the CSOs' initiatives in Bamenda I Municipality are sustainable. This implies that they prioritise long-term empowerment over short-term alleviation, are locally relevant, and are community-centred.

**Table 2: Role of CSOs in Climate Change Resilience and Adaptability in Bamenda I**

Statement	Response	Frequency	Percent
Awareness of climate change issues	Agree	90	60.00%
	Strongly Agree	60	40.00%
	Neutral	45	30.00%
Adoption of climate-smart agriculture	Agree	45	30.00%
	Strongly Agree	60	40.00%
	Neutral	30	20.00%
Access to climate adaptation resources	Agree	75	50.00%
	Strongly Agree	45	30.00%
	Disagree	30	20.00%
Coping with droughts	Neutral	60	40.00%
	Agree	60	40.00%
	Neutral	45	30.00%
Reducing vulnerability to floods	Agree	60	40.00%
	Strongly Agree	45	30.00%
Strengthening participation in climate solutions	Agree	90	60.00%
	Strongly Agree	60	40.00%
	Disagree	15	10.00%
Promoting sustainable water management techniques	Agree	60	40.00%
	Strongly Agree	75	50.00%
	Neutral	45	30.00%
Enhancing livelihood resilience	Agree	75	50.00%
	Strongly Agree	30	20.00%
Collaboration with other organizations	Agree	45	30.00%
	Strongly Agree	105	70.00%
Sustainability of initiatives	Agree	30	20.00%
	Strongly Agree	120	80.00%

### 3.4. Challenges of CSOs in Promoting Climate Resilience and Sustainable Development

We began by analysing funding sufficiency, technical expertise, political climate, coordination with stakeholders, community engagement, access to physical resources, addressing vulnerable groups, monitoring and evaluation systems, security risks, and the effects of low climate awareness to analyse the difficulties CSOs face in the fight against climate resilience. The results of the study

show the main strategic and operational difficulties that CSOs in Bamenda I Municipality face when implementing climate resilience programs.

According to Table 3, funding limits were identified as a key impediment, with 120 (80%) of respondents indicating insufficient financial support and 30 (20%) stating that it is extremely limited. This highlights how financial instability can limit the reach, consistency, and scalability of otherwise effective actions. In-depth interviews indicated little funding, poor government engagement, and practical difficulties. According to one participant, *"bureaucratic resistance and lack of policy implementation are some of the challenges"*. Another participant predicted *"institutional bottlenecks and low technical capacity"*. A participant summarised *"cultural resistance to sustainable practices and inadequate financial tools"* succinctly. To back up these claims, a prominent CSO member stated that *"lack of synergy between CSOs and government actors emerged as a recurring bottleneck"*. Despite financial challenges, these CSOs appear to have strong technical skills, since 60 (40%) stated appropriate expertise and 90 (60%) acknowledged it. This suggests that the organization's human capital continues to serve as a firm foundation for execution and innovation even in the face of limited resources.

In Bamenda I Municipality, the political atmosphere has a considerable impact on how CSOs operate. About 45 (30%) reported severe obstacles, whilst 105 (70%) reported moderate political difficulties. This is probably a reflection of the region's overall socio-political instability. Particularly in places requiring local government buy-in, such an atmosphere might hinder on-the-ground engagement, complicated relationships, and delay project completion.

Regarding stakeholder coordination, respondents were largely positive: 105 (70%) reported smooth operations, 30 (20%) reported excellent collaboration, and 15 (10%) reported the need for improvement with stakeholders, citing bureaucratic delays or sporadic gaps in multi-stakeholder alignment. In-depth interviews revealed that respondents are calling for stronger multistakeholder partnerships. Policy implementation gaps and exclusion from formal governance structures limit CSOs' operational potential, despite their local legitimacy. According to a participant, *"decentralised funding and national CSO coordination platforms should be effectively implemented"*. Another CSO member *"emphasised improved coordination and clear policies"*. Succinctly, another participant *"sought government subsidies, policy enforcement, and deeper public-private engagement"*.

In a similar vein, 60 (40%) reported that CSOs effectively engaged the community, 45 (30%) observed difficulties with participatory inclusion, indicating that additional work may be required to reach underrepresented or difficult-to-reach people, and another 45 (30%) claimed that CSOs were generally effective. In-depth interviews revealed that:

Participants stress leveraging indigenous knowledge and participatory adaptation techniques by engaging communities through outreach and capacity-building once their programs are launched. Another CSO member emphasised the need to integrate community voices throughout the project cycle from feasibility to impact assessment.

These responses underscore that community ownership and local collaboration are central to successful adaptation. Empowering local communities through inclusive participation enhances sustainability and climate resilience.

In terms of resource access, 120 participants (80%) acknowledged some limitations, while 15 participants (10%) indicated significant challenges and overall inadequacies. This suggests that, especially in areas prone to flooding or landslides, a lack of equipment and transportation

infrastructure may impede field operations, monitoring, or emergency response. Furthermore, 30 (20%) still perceived difficulties and were effective for all categories, respectively, despite 90 (60%) believing that CSOs handle the needs of various groups at least somewhat effectively. This suggests a chance to improve gender and youth inclusion.

While 75 (50%) of the respondents thought the CSOs' monitoring and evaluation (M&E) system was competent, 45 (30%) thought it was successful, and 30 (20%) thought it needed to be improved. This implies that the organisation may improve programming and show impact by investing in more robust evidence-tracking methods. Of the responders, 75 (50%) describe security risk as a minimal issue, 45 (30%) describe moderate interruptions, and 30 (20%) describe perfect safety. This implies that CSOs in Bamenda I Municipality have a certain degree of security in promoting climate resilience and sustainable development. Most participants, 75 (50%), said that implementation is severely hampered by low climate awareness; 45 (30%) indicated minor difficulties; and 30 (20%) reported moderate difficulties.

**Table 3: Challenges of CSOs in Promoting Climate Resilience and Sustainable Development**  
*The Language Controversy*

Item	Response	Frequency	Percent
Funding sufficiency	Inadequate, hindering projects	120	80.00%
	Severely limited, impeding effectiveness	30	20.00%
Technical expertise	Strong expertise	90	60.00%
	Adequate expertise	60	40.00%
Political climate	Moderate challenges	105	70.00%
	Severely hinders operations	45	30.00%
Coordination with stakeholders	Excellent	30	20.00%
	Smooth with minor issues	105	70.00%
	Needs improvement	15	10.00%
Community engagement	Fully engages the community	60	40.00%
	Generally effective	45	30.00%
	Faces challenges	45	30.00%
Access to physical resources	Generally adequate	15	10.00%
	Some limitations	120	80.00%
	Significant barriers	15	10.00%
Addressing vulnerable groups	Effective for all groups	30	20.00%
	Generally effective but needs improvement	90	60.00%
	Faces challenges	30	20.00%
Monitoring & evaluation systems	Robust and effective	45	30.00%
	Generally adequate	75	50.00%
	Needs improvement	30	20.00%
Security risks	Completely safe	30	20.00%
	Minimal risks	75	50.00%
	Moderate disruptions	45	30.00%
Impact of low climate awareness	Minor challenges	45	30.00%
	Moderate obstacle	30	20.00%
	Significantly hinders implementation	75	50.00%

#### 4. Discussion

The study examined the contribution of CSOs in promoting climate resilience and sustainable development in Bamenda I Municipality. To accomplish its goals, the study examined the major climate variability challenges affecting Bamenda I Municipality, (2) the contribution of CSOs in climate resilience and adaptability, and (3) the challenges of CSOs in promoting climate resilience and sustainable development in Bamenda I Municipality.

The Bamenda I Municipality's major climate variability challenges were found to be unpredictable rainfall (54, 36%), water scarcity (50, 33.3%), and soil erosion (32, 21.3%). This is in line with

Ndenecho's (2011) emphasis that the diverse topography of the Northwest Region increases rainfall variability, which exacerbates dangers like soil erosion and landslides. Rainfall variability strains biological systems and water supply in addition to upsetting agricultural cycles. This conclusion was corroborated by data from the in-depth interview, which also added that:

Climate variability manifests through erratic rainfall, rising temperatures, frequent extreme weather events, and localised environmental disruptions. Participants emphasised disruptions to agroecological systems, especially planting cycles, shifts in precipitation and the threat to livelihoods. Another participant mentioned temperature changes and agricultural challenges, such as reduced yields, aligning with localised experiences in Bamenda I Municipality.

Perceptions of climatic instability and its socio-ecological impact are widely shared across CSOs, reflecting grassroots awareness. There were also many reports on temperature changes; 90 (60%) of the respondents said that local temperatures had significantly increased. This supports the findings of Funk et al. (2014), who connected decreased agricultural output and food poverty in Sub-Saharan Africa with rising temperatures. In Bamenda I, higher temperatures probably increase evapotranspiration and decrease soil moisture, making agriculture and water access more stressful. With 120 (80%) of respondents saying that access to water has drastically decreased, water shortage emerged as a serious problem. This is in line with the claims made by Molua and Lambi (2007) that longer dry spells and changed precipitation are jeopardising water security throughout Cameroon. The findings of Ayonghe et al. (2004) and Ndenecho (2011), who both identified deforestation and topographic instability as major causes of erosion and slope collapse in the area, are consistent with the occurrence of severe soil erosion, which was reported by 60 (40%) of participants. Flood risks and landslides were particularly noticeable; 45 (30%) of respondents reported an increase in flooding, while 75 (50%) reported occasional landslides.

The International Federation of Red Cross and Red Crescent Societies' (2020) findings on the socioeconomic effects of urban flooding in Cameroon are consistent with these individual disasters. These findings illustrate the elevated risk that Bamenda I Municipality's peri-urban and upland communities suffer because of climate stress and poor infrastructure. It seems that 60 (40%) of respondents believe the community is entirely unprepared to deal with these challenges. This lack of preparedness emphasises the challenges raised by Kirkby (2018), who emphasised the importance of community-driven adaptation efforts, especially in vulnerable areas with limited institutional assistance.

Civil Society Organisations (CSOs) in the Bamenda I Municipality have played an important role in climate resilience and adaptation. According to the findings, 60 (40%) of respondents verified their efforts to aid the community in adopting climate-smart agriculture practices, and 90 (60%) felt that CSOs had enhanced knowledge of climate change awareness in the municipality. These findings are congruent with Fonjong's (2007) empirical research, which discovered that through community training programs, women-led CSOs in Anglophone Cameroon significantly boosted environmental awareness and sustainable farming. The fact that 75 (50%) of respondents believe CSOs have improved access to resources for climate adaptation is also relevant. This finding is consistent with RELUFA's strategy of using agroecological approaches and grain banks to increase food security and reduce vulnerability (Ayamba et al., 2026). CSOs, like RELUFA, appear to act as a bridge between local expertise and technical solutions, encouraging communities to adopt climate-smart adaptations through the provision of resources and training.

In terms of their ability to survive droughts, 60 people (40%) agreed, while another 60 people (40%) offered no view. This is partially consistent with Molua's (2009) findings, which underlined that, while CSOs play an important role in promoting drought-resistant agricultural varieties and providing financial support, their reach can be inconsistent due to logistical and fiscal constraints. While 60 (40%) and 90 (60%) agreed that CSOs had been successful in reducing flood vulnerability and increasing participation in climate solutions. The conclusions of Schipper et al. (2014), who contended that CSOs serve as efficient bridges between national adaptation policy and local implementation, are supported by the broad agreement regarding CSOs' cooperation with other groups.

Regarding sustainable water management, 75 (50%) of all participants strongly agreed that Civil Society Organisations in the Bamenda I Municipality have played a significant role in promoting sustainable water management practices, interacting and working with communities as partners in practical solutions where they are among the primary beneficiaries, rather than only as users of services (CSO Bulletin, 2013). Through collaboration among CSOs, local government, and communities, the strategy presented here offers a bottom-up approach that positions the intervention at the socio-technical interface. Additionally, the strategy promotes citizen regulation by offering the possibility of creating jobs through training, advocacy through community knowledge, involvement, and water-wise habits.

According to the survey, 75 (50%) respondents believed that CSOs have improved community livelihood resilience. These results are consistent with those of Khaled (2024), who discovered that NGOs were essential in fostering information access, capacity building for climate action and disaster preparedness, and access to social and economic possibilities. The results also suggest that CSOs assisted the Municipality in developing long-term projects to promote community resilience. NGOs assist communities in adapting to changing climate conditions by supporting income-generating activities (IGAs) and improving access to rights through market linkage (Khaled, 2024). NGOs played a critical role in promoting water, sanitation, and hygiene (WASH) enterprises and advocating the use of technology for climate adaptation (Khaled, 2024). The findings could assist in developing strategies and policies to promote community resilience in Cameroon and around the world.

Findings on the challenges of CSOs in promoting climate resilience and sustainable development in Bamenda I Municipality revealed several obstacles in their efforts to promote climate resilience and sustainable development, including insufficient funding (120, or 80%), political unpredictability (105, or 70%), and limited access to physical resources.

According to Table 3, 120 (80%) of respondents said the existing budget was insufficient. The findings of Ngwa et al. (2017), who emphasise that the majority of CSOs in Cameroon rely heavily on outside donor support, which is usually irregular and insufficient for continuing programming, confirm this conclusion. Important initiatives such as community participation, technical training, and infrastructure spending remain constrained due to a lack of consistent funding. Technical capacity presents a more nuanced picture. 40% of respondents indicated that CSOs' high technical expertise was insufficient for most tasks, despite 90 (60%) of respondents agreeing. This is consistent with the findings of Esono (2020), who discovered that, while Cameroonian CSOs are typically staffed by motivated individuals, their full potential is frequently hampered by a lack of access to cutting-edge technologies and specialised training, particularly in remote and disaster-prone areas such as the Northwest Region. The findings are consistent with the International Crisis Group's (2019) analysis, with 45 (30%) of interviewees claiming that political instability

considerably impedes CSO operations and 105 (70%) reporting moderate difficulties. They argue that the ongoing Anglophone conflict has limited the reach of CSOs in severely affected areas, hampered service delivery, and jeopardised employee safety. Important climate adaptation initiatives may be delayed or even halted because of this instability, which also introduces risks and logistical challenges.

The data suggests that 60 persons (40%) believe CSOs fully interact with the community. These findings contradict those of Khan and Agrarian (2024), who observed that centralised consultations, tokenistic involvement, rushed policy timelines, and social and cultural norms are significant barriers to successful stakeholder engagement. The findings indicate that present methods frequently inhibit meaningful participation and accountability, resulting in a disconnect between public information and state decisions (Khan & Agrarian, 2024). According to 120 (80%) of respondents, CSOs have limited access to tangible resources such as transportation and equipment. This supports previous research by Fonjong (2016), who found that many grassroots CSOs in Cameroon lack the logistical infrastructure necessary to carry out ongoing monitoring, provide aid, or react quickly to new threats like flooding or landslides.

Most respondents, 90 (60%), believed that CSOs in the Bamenda I Municipality at least somewhat adequately serve the needs of vulnerable groups. These results contrast with those of Dayanandan (2014), who discovered that because people with disabilities are diverse in terms of extra identification markers, including class, gender, and age groups, it can be difficult to view them as a monolithic group. For the reasons listed above, CSOs must take these groups into account. The easiest way to accomplish this is to incorporate their wants and interests into the organisation's policies and take them into account at every stage of the project. As health conditions, HIV and AIDS have more social effects than physical infections and compromised immune systems (Dayanandan, 2014). These societal effects result from society's attitudes and ways of thinking. People with HIV/AIDS have occasionally experienced rejection from their loved ones and communities, unjust treatment at employment, and denial of access to healthcare and education. Policies are therefore necessary to guide the activity of organisations, which in turn affects planning at the institutional and community levels, as well as establishing monitoring and evaluation metrics. Due to their exclusion from decision-making and consequent marginalisation as both stakeholders and beneficiaries of most development initiatives, children make up a sizable portion of our communities (Dayanandan, 2014). Since children have the right to participate, it is crucial to include them in choices that either directly or indirectly affect them. In addition, their involvement should be focused on delivering services that are child-friendly and guarantee the safety of children. Another marginalised category is the elderly, and CSOs must address their health, water and sanitation, and food security initiatives (Dayanandan, 2014). Groups that are shut out of society due to their line of work can be found throughout the world (Dayanandan, 2014). Since they belong to the lowest social classes, it is crucial to involve those who are marginalised due to their occupation as the primary goal of CSOs.

Most participants, 75 (50%), found CSOs' Monitoring and Evaluation (M&E) systems to be adequate. This is like Tingem et al. (2008), who emphasised the importance of robust monitoring and evaluation for demonstrating project impact, attracting funding, and driving evidence-based changes. Weak M&E systems, especially when scaling climate-related efforts, might result in missed learning opportunities or reduced accountability (Tingem et al., 2008). Up to half (50%) of respondents highlighted security threats as a minor impediment to their activities to promote climate resilience and sustainable development in Bamenda I Municipality, indicating that CSOs

are somewhat protected. Most participants, 75 (50%), felt that insufficient climate awareness impedes the implementation of climate resilience and sustainable development programs.

### **Conclusion**

This study thoroughly analysed CSOs' contributions to climate resilience and sustainable development in Bamenda I. The findings from the major climate variability challenges affecting Bamenda I Municipality make it abundantly clear that the community is dealing with urgent climate issues such as unpredictable rainfall, rising temperatures, soil erosion, and water scarcity, all of which seriously impair agricultural productivity and jeopardise livelihoods. CSOs have become essential players in developing local adaptation methods in response to these pressures. Findings on the role of CSOs in climate resilience and adaptability in Bamenda I Municipality revealed that CSOs have increased community awareness of climate change issues and assisted in the adoption of climate-smart farming methods. This suggests that their participation fills in the gaps between field-level implementation and policy, which frequently leads to higher crop yields, improved resilience against climate shocks, and improved farmer access to financial services. CSOs' challenges in promoting climate resilience and sustainable development in Bamenda I Municipality revealed constraints such as insufficient funding, volatile political situations, and limited access to tangible resources. This argues that these constraints result in a "trust deficit," forcing CSOs to operate in a "fragile" state, prioritising immediate survival over long-term strategic adaptability. The stability of their operational environment, access to physical resources, and financial security all have a substantial impact on CSOs' ability to promote sustainable development and build climate resilience.

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### **Statement and Declaration**

While the first author contributed to the conceptualisation of the work and the completion of the study, the second author oversaw writing the article and will oversee answering all interactions with the journal.

### **Ethical Consideration**

Ethical approval was secured from the relevant review board, and cultural sensitivity was maintained throughout the research process.

### **Consent to Participate**

Ethical considerations were paramount in this study since it involved human subjects. Informed consent was obtained from participants in written form, ensuring their confidentiality and anonymity, and minimising any potential harm or discomfort.

### **Consent for Publication**

Not applicable

**Data Availability Statement**

The information was stored on a computer that was inaccessible to any outside parties for ten years after being coded and given a password.

**Declaration of Conflicting Interest**

The authors declare no conflict of interest.

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