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ON URBAN FORESTS

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# **Urban Forest Regeneration as a catalyst to Combat landslides in Ecological fragile Zones of Cameroon. The Case of the Bamenda Escarpment.**

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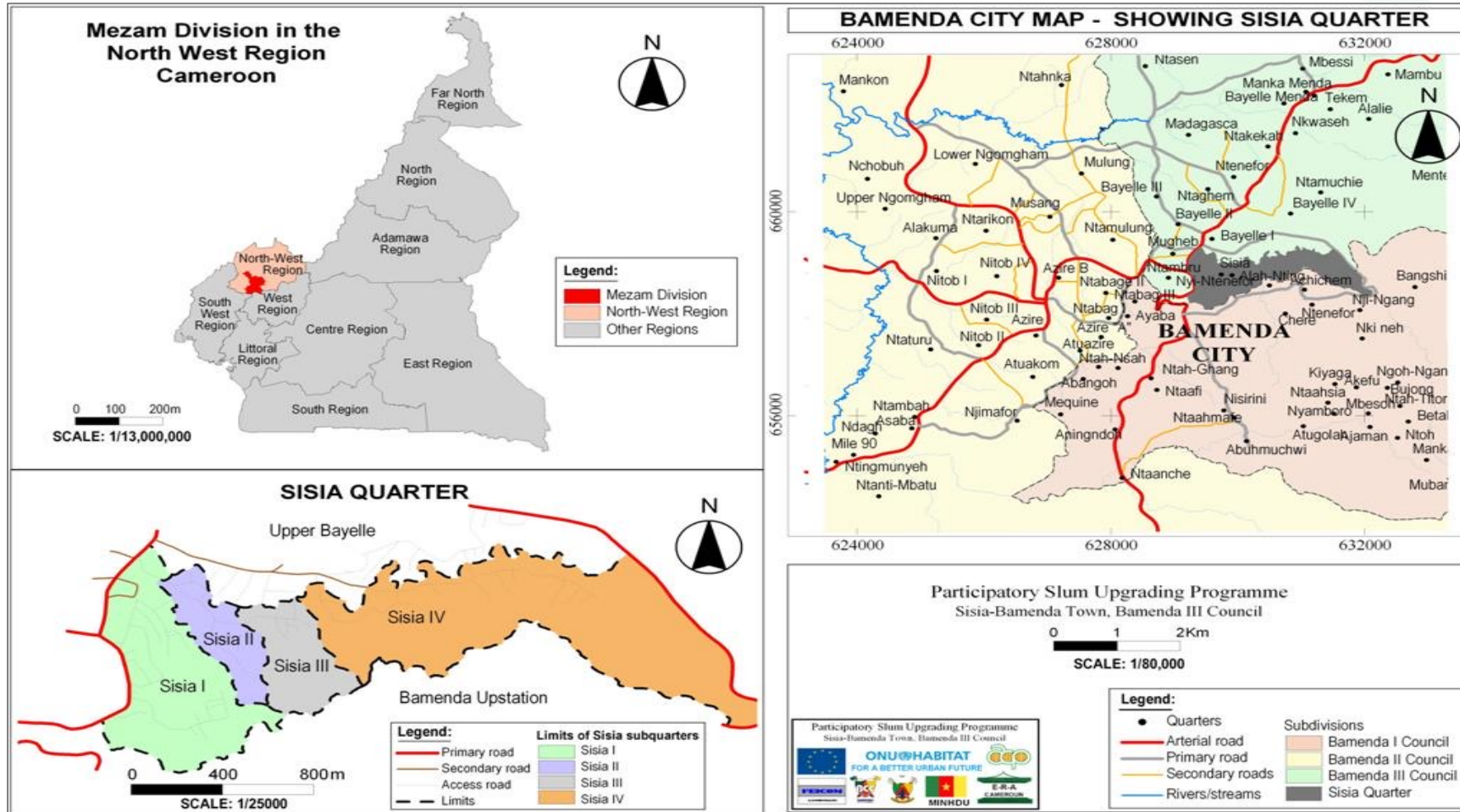
# INTRODUCTION

Urban forest reserves play a significant role on our global fight towards combatting climate change and this can be successfully fought through local actions where the communities are given the right orientations to take the lead in forest generation and regeneration

**World urban population occupy only 2% of the global land area, but are accountable for 70% of the World's GDP , 60% of energy consumption, 70% of greenhouse gas emissions and 70% of solid waste production, with Forestry products contributing a portion of this global GDP.** Cities play a role in energy generation and consumption levels as Urbanization, particularly in developing countries, has both challenges and opportunities. While cities can be seen as both culprits and victims, they can be saviors too, by leading on climate actions with sustainable management of urban forest reserves being one of the pillars.

**The Bamenda Escarpment covering a total area of 8.4 km<sup>2</sup> is one of the most hazardous zones of the North West Region of Cameroon and falls in the stretch of the Cameroon volcanic zone. Besides the negative consequences of multiple landslides from continues human activities on these fragile zone and the city, the outcomes have been loss of lives and property, drying sources of potable water, depletion of generated and regenerated urban forest, and less carbon capture capacity of the City.**





**Bamenda in the Country setting and Sisia within ecological fragile zone in city setting**



# THE PROBLEM



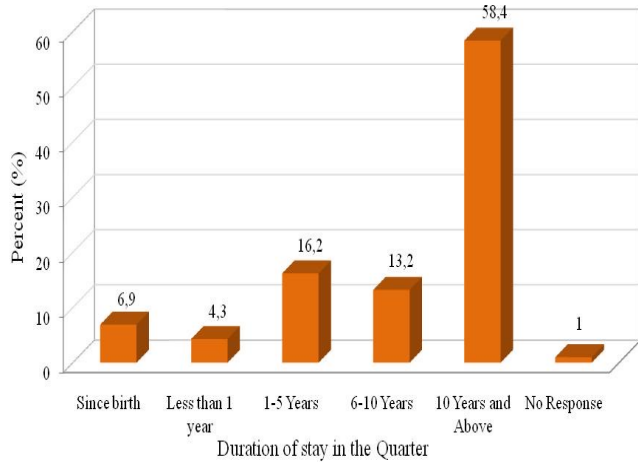
- Cameroon has experienced multiple landslides of recent; the latest occurring in November 2024. **Some of these have occurred in informal settlements and caused by human intense activities along these ecological fragile zone which is the active volcanic range of the country, extending from the Bamenda Highlands to Mount Cameroon.** In Bamenda, the city has a fault -zone of average 25% gradient which cuts across the whole City breadth. This area has been invaded by squatters and their activities have contributed to forest depletion and consequently frequent landslides .

These problems formed the base of Sisia Resilience project under partnership funds which is ongoing. **Developed from the greater PSUP project, Urban forest regeneration is one of the main goals of the project.**

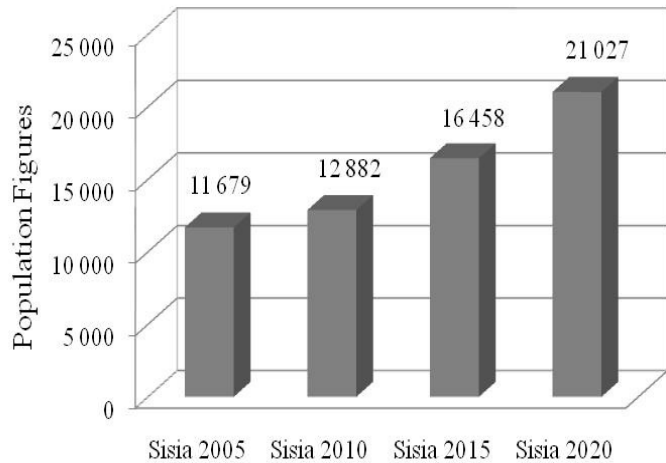
**Illegal harvesting of fuel wood**

**And housing deep in fragile zone**





**Duration of stay in Sisia**



**Population Trends of sisia**

**Source : ERA Cameroon ( PSUP)**

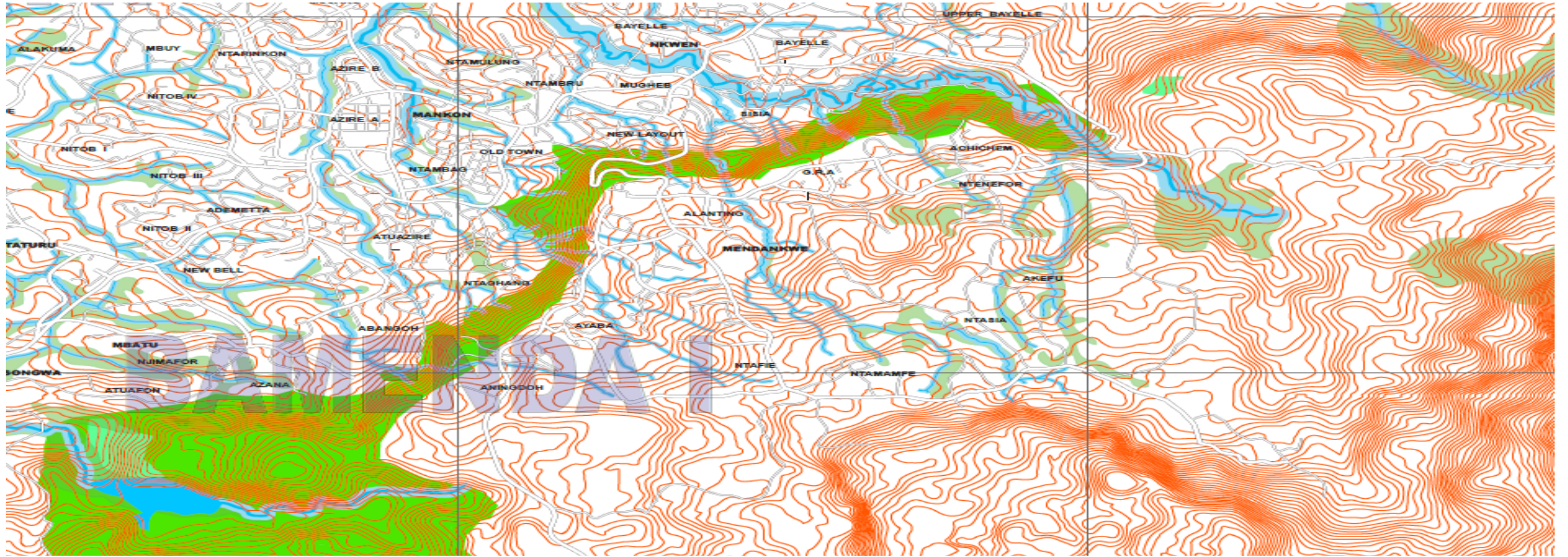
## **CAUSES OF URBAN FOREST DEPLETION IN BAMENDA CITY**

Cause of urban forest depletion along the escarpment can be tagged to four sources: **urbanisation, the slum situation of Sisia, Energy needs and Agricultural activities within this area.** These activities has resulted to exposure of the ecological fragile zone to further hazards linked to climate change. The tree cover of the escarpment decreased by 20% between 1980 and 2010 with the following being some immediate cases:

- Population growth and invasion of highly fragile areas of the escarpment which saw the **population increased from 11000 inhabitants in 2005 to 21000 in 2020.**
- **Landslides** of some areas of the steep slopes of average 25% grade; leading to loss of lives and property.
- **Encroachments** into the 6 main Water Catchments sources found within this fault .
- **Human induced Floods** at the lower sections of Sisia leading to loos of lives and property; the last being a child swept by the floods in 2018 .
- **Unathorised parceling** of steep slopes for settlement and Agriculture by individuals
- **Little Development control efforts** from the urban managers







Ecological fragile zone in green

## COUNCIL AND COMMUNITY ACTIONS

- Formalisation of the Sisia Supervisory committee (SSC) to take community lead in climate actions within the ecological fragile zone.
- **Surveillance of negative community activities like dumping in the streams and unsustainable exploitation of fuel wood from the escarpment; these all aimed at stopping recalcitrant squatters from further aggravating the negative effects of climate change they are facing.**
- Voting of the priority needs by the populations themselves where 3 top voted projects were linked to combating climate change.
- **Selecting 02 sites for development of a tree nursery as a prelude to the development of a community forest within the areas that will be vacated by those to be removed and resettled.**





- **Enacting Ministerial Decision to declare for public utility some areas within the Sisia settlement;**
- **Enacting Ministerial Decision for resettlement of those to be displaced where an area of 72 Ha has been reserved for that purpose at Mbung neighbourhood and will carry a population of 5,346 inhabitants on an average of 198 inhabitants per hectare..**
- **Maintenance of a 2 hectare City farm**, that has not only got youths involved in urban agriculture. but has increased the bread basket of the city.
- Intensification of yearly tree planting along the ecological fragile zone.
- Budgeting of 5,000,000XAF (9,090USD) annually for clearing and fire preventive measures within the escarpment .
- Presently developing a second green space within the escarpment which has a lake attached to it.
- Development of a City Green park under partnership funds at one section of the escarpment.



# OUTCOMES

- Reduction of encroachments into the high risk areas of the escarpment by 80% from 2022 levels and by extension reduction in forest depletion.
- Zero landslides seen again within the zone since that of 2022
- Reduced dumping in the streams by 50% from 2019 levels and hence no homes flooded again .
- **Protected water catchments from the partnership resilient project being implemented to compliment the efforts of the PSUP programme for Sisia.**
- **Intensified protection of the entire ecological fragile zone by City Council which has seen the planting of more trees with community inputs where 2000 trees were planted in 2021, the number doubled in 2022 and another 2000 planted in 2024.**
- Zero fires seen within the ecological fragile zone since 2023.
- Improved carbon capture capacity of the city and climate stabilisation which contributes to the country's goal of carbon emissions.
- **harnessed Water from catchments and reduction of water fetching from shallow untreated wells by 90% from 2014 levels**
- **Planned Development of community forest on 2ha Vacate land at Sisia.**
- Improved urban food basket in the Pure organic foods supply to the city chain of the city by 1% in 2022 when the City Farm was at peak production.



# CONCLUSION

**Our global quest to fight desertification, landslides and above all combat climate change begins with local actions that are coordinated and focused.**

**The Ecological fragile zone of Bamenda city is being continuously regenerated and has seen commitments not only from the local government and development partners, but equally from the local populations which have realised that they are at receiving end of negative effects of the disasters that have occurred here in the past and should stand up against same by being community forest ambassadors**

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**This entails that matters of Urban forest regeneration, slum upgrading and Climate Change are cross cutting issues within urban areas and are better coordinated at the local level so that the community takes the lead especially in the quest to balance use of wood for energy and other urban needs and regeneration of urban forest.**









# Thank You.

