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Challenges to Rural Infrastructural Development and Coping Strategies in Mezam Division, North West Region of Cameroon

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ABSTRACT

Despite efforts made to improve rural infrastructural development over time, many rural infrastructural projects in the rural Mezam Division have remained of poor quality. This paperset out t make an evaluation of the challenges faced by the local population in the Mezam Division and the coping strategies they have adopted to cope with the rural under development. 260 questionnaires were distributed and 210 were obtained. 30 interviews were conducted with rural dwellers, NGOs, community-Based Associations, and state administrators three focus group discussions were organized with 8 members, bringing the total to 24 participants. Multivariate analysis was utilized to establish the framework for judging the quality of rural infrastructural projects and to identify the various coping strategies in the Rural Mezam Division.Data have been analysed both qualitatively and quantitatively; and have been presented on figures, tables, and photos.Findings revealed that rural infrastructure projects in the Rural Mezam Division are often implemented in challenging environments such as a poor administrative system, scarcity of skilled labour force, low institutional capacity, and high levels of mismanagement. The various development sectors such as agriculture, transport, education and health sectors are affected negatively which has led to rural underdevelopment. As such, the rural people who are the main beneficiaries of rural infrastructure have adopted different coping strategies in the different development sectors in order to sustain their lives. Furthermore, the paper holds that the way forward is for the ruralcouncils to be made autonomous so that they can raise revenue through taxes and use the finances for rural development.

INTRODUCTION

Rural development is often taken to denote developmental activities and initiatives that are taken by the governments, donors, non-governmental organizations, and communities with the objective of improving the standards of living in rural areas. With the potentials in the rural areas and challenges abound as exploitation is concerned, there is a glaring call for appropriate rural developmental policies and a more effective use of resources to improve on the living conditions of the rural population through developmental projects.

Statement of the Research Problem

Although, it is perceived that adequate provision of infrastructural facilities will enhancethe introduction and adaptation of innovative ideas towardsthe bettermentof the quality of life in the rural areas. This has led to rural underdevelopment in the Rural Mezam Division. RuralMezamDivision has splendid opportunities for investment, wealth creation, culture, tourism and other socio-economic activities. All four Municipalities regardless of size are endowed with natural and human resources. Its population is industrious, resourceful, and uniquely hospitable and of exotic cultures. Other examples of the strengths include a rich natural resource base that could be exploited for production purposes, traditional defense groups, indigenous knowledge, local markets, forest resources and livestock. There exist enough opportunities in the region, if used efficiently, responsibly and transparent, will encourage sustainable infrastructural development for the benefit of the rural population and its benefits spread to the entire region. Unfortunately, the implication of these rural development projects in the Rural Mezam has been impeded as observed by the top-down approach in which the rural people are not involved in projects conception, planning and monitoring which often lead to failure and abandonment of many valuable projects (UN, 2005). Thus, the rural people are barely sustaining their lives with local indigenous ideas which are rudimentary and not sustainable enough.

METHODOLOGY

Mezam Division is one of the seven Divisions in the North West Region of Cameroon with a surface area of 1,841.45km2. The region is situated within the highland area of the North West Region of Cameroon. It is located between latitudes 5°40`N and 7° 50`N of the equator, and longitudes 09°8` E and 11° 51` E of Greenwich meridians (Ndenecho and AKum, 2009). Mezam Division is boarded to the North by Boyo Division, South by the West Region, East by Ngoketunjia Division and West by Momo Division. Rural Mezam occupies the North and the Southern parts of the Division (Figure 1). Rural Mezam constitute Bafut, Bali, Santa and Tubah rural municipalities have a combined population of over 498,000 people. Santa Sub-division has the largest

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population, which stands at over 223,000people, followed by Bafut and Bali Sub-divisions with about 129,000 and 89,000 people respectively while Tubah is the least with 57,000 inhabitants as of 2015 projections (United Councils & Cities of Cameroon (CVUC)-visited, 2022). Rural Mezam has an agrarian economy with over 80% of the population involved in either the cultivation of crops or the rearing of animals.

Data for this study were gotten from both primary and secondary sources. Primary sources of data included questionnaires, interviews and group discussions. These primary data sources targeted individuals and groups who were directly involved and contributed to the rural development process in Mezam. The populations of the four rural Municipalities of Santa, Bafut, Bali and Tubah were investigated to obtain this first-hand information. These rural populations were targeted because they are the beneficiary groups and constitute the main stakeholders who have a pivotal role to play in their rural development process. The community members provided information regarding their views, feelings and opinion about their contributions to development programs that intend to enhance service delivery and satisfaction of basic needs.

Secondary data was obtained from published sources such as textbooks, archives, legislation, policies, and previous research papers while unpublished sources of data included theses, dissertations, documents, reports and written materials about stakeholder contributions to rural development.Data from both primary and secondary sources was analysed using the descriptive and inferential statistical techniques. Measurable aspects of data such as responses from questionnaires and interviews were analysed using quantitative analyses.

In order to attain this objective, a mixed research methods was adopted in this research with quantitative and qualitative applied. Two hundred sixty (260) questionnaires were distributed and Two hundred and ten (210) were obtained, giving a total of 80.8% responses. This sample frame was accompanied by 30 interviews were conducted on rural dwellers, NGOs, community based associations and state administrators beside three focus group discussions.

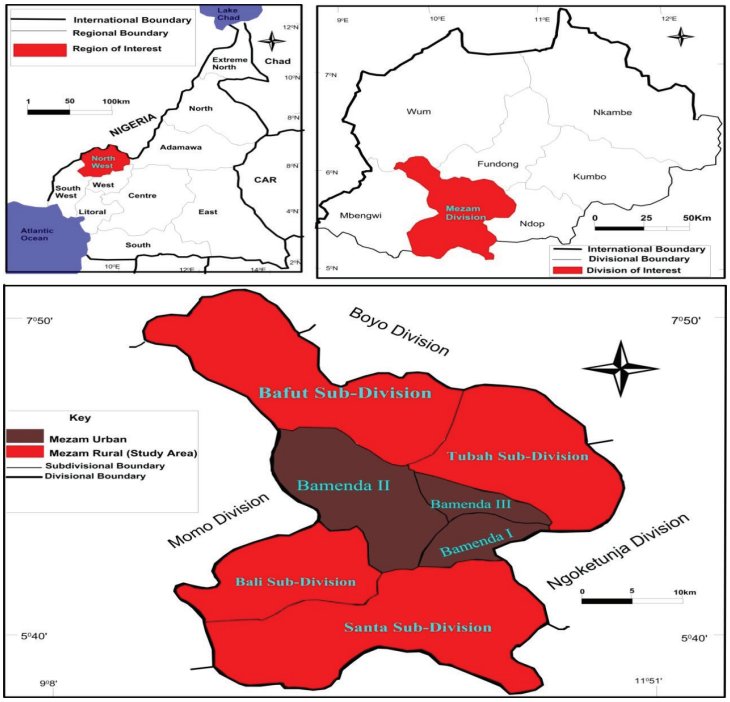

Figure 1: Location of the Study Area, a) North West Region in Cameroon, b) Mezam Division in the North West Region, c) A Detailed Layout Map of Mezam Division.
Source: Adopted from Ndenecho and AKum (2009)

These primary sources of data gave the researcher first-hand information about what existed in the field. Besides these, photos of infrastructural projects were taken to show the magnitude of the problem. Multivariate analysis was utilized to establish the framework for judging the quality of rural infrastructural projects and to identify the various coping strategies in the Rural Mezam Division. Quantitative data were analyzed using percentages and presented on charts. Non-measurable aspects of the data such as the state of development projects like roads, water supply and educational facilities were analyzed using qualitative techniques. The qualitative analysis was done with the help of field observation. The data was then presented with the help of figures, photos, and bar charts.

RESULTS AND DISCUSSIONS

Rural Infrastructural Challenges

The various rural development sectors in Mezam include agriculture, transport, education, health water, and electricity supply. These sectors face different challenges in their development endeavors to serve the populations.

Challenges in the Agricultural Sector

Constraints to agricultural development in Rural Mezam include conflicts, remoteness of production areas, difficulties in marketing agricultural produce due to fluctuations in prices, and ineffective post-harvest operations, all attributed to the poor condition of roads linking the production areas to towns which are the main markets (Figure 2). Findings revealed that 34.3% of the rural population suffers from conflicts such as farmer-grazier, socio-cultural and inter-tribal conflicts as well as the Anglophone crisis. The result also show that 24.3% of the rural population suffer from high cost of transportation, 20.5% suffer from bad and seasonal roads, 11% suffer from losses render from food rot and 10% suffer from the lack of storage and preservation techniques.

These challenges limit agricultural productivity which lowers the incomes of the rural people thus rendering them poor. Women and vulnerable groups are also

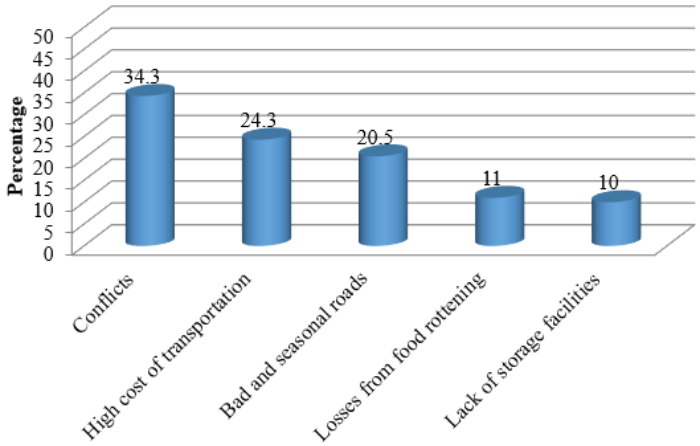

Figure 2: Challenges in the Agricultural sector in the Rural Mezam
Source: Field Work (2022)

acutely affected. Female headed households are generally poorer and often fall within the lowest income categories of people as they suffer more in the Rural Mezam. The women and female headed households are thus involved in seasonal crops which yield little income compared to perennial crops. Mbororolivestock farmersin the Rural Mezam Division just like the female population do not own land and cannot carry out settled livestock breading in ranches. This keeps them wondering on the hills in transhumant form of cattle rearing causing farmer/grazier conflicts in the region. Poverty alleviation among the women and Mbororo populations is thus a difficult task given the fact that these groups of people do not have access to land. Development takes place on land but their inability to own land leave the marginalized female and Mbororo populations with meagre resources to depend on.

The business sector in rural Mezam also face challenges such as limited access to loan, low prices for agricultural produce, poor quality and limited market sheds, absence of large scale business operators, lack of price control, inadequate social facilities like toilets, slaughter slaps, water, poor hygienic conditions in rural markets, overcrowded and disorganised markets as well as low level of transformation and preservation of local products which lead to food decomposition and waste (Figure 3). Findings revealed that 28% of the population complained of insufficient constructed market sheds which makes storage and sell of their marketable products difficult. The results also show that 20% complained of low prices of agricultural products which reduce the incomes of farmers and discouraging most youths to get involve in farming activities.

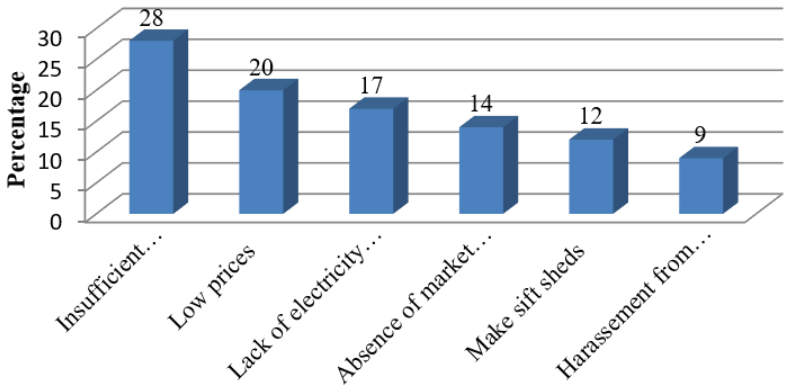

Figure 3: Challenges in rural markets of Mezam
Source: Field Work (2022)

The rural people in Mezam (17%) also complained of the absence of water and electricity while 14% complained of the lack of market fences and security guards to secure the few shops in the market. The growth of income generating activities, small and Medium-size enterprises in rural areas is further hindered by numerous national and district regulations related to licensing, business fees, and taxation adversely affecting business development and limiting motivation for the private sector to invest in the Rural Mezam. Higher operational costs, poor infrastructure, and distances from major markets all act as a disincentive.

Farmers still expose their products to bad weather conditions which lead to food decay. There is poor organization among agricultural producers in the Rural Mezam which has also made it difficult for them to determine the price of their produce. They are thus often cheated by buyers mostly the "buyamsellam" who come in to buy from them in major towns in Cameroon and beyond. The situation is further worsened by the fact that some farmers' cooperatives in the Rural Mezam have gone bankrupt and collapsed due to mismanagement. This has discouraged most farmers who chose to work individually and the benefits of cooperative farming through increased farmers' incomes and better living standards are all lost leaving rural farmers in Mezam trapped in poverty.

Challenges in the Transport Sector

The poor state of rural roads is a critical constraint to the development of the agriculture sector which is the major economic activity in the Rural Mezam. Out of the total road network, only 11.5% of the rural roads are paved roads and 88.5% unpaved. Only 14% of the unpaved roads are in good condition, 25% in fair condition and the remaining 61% is in poor condition and highly seasonal in nature (North-West Regional Delegation of transport, 2022). The performance of the road sector has deteriorated to the extent that transport has become a constraint to economic recovery especially in the agricultural sector which is a backbone of the rural economy in Mezam Division. Poor road network especially farm to market roads make it difficult for circulation of vehicles and motor bikes leading to post-harvest loss. Producers and service providers are facing the problem of accessing markets for their products or services due to poor transport and communication services in these rural communities. Unfair competition of local products has led to dumping of agricultural products in rural markets most especially during peak periods.

Challenges in the Educational Sector

Schools in Rural Mezam still suffer from insufficient staff; classrooms, workshops in technical schools and where these workshops do exist, insufficient machines,

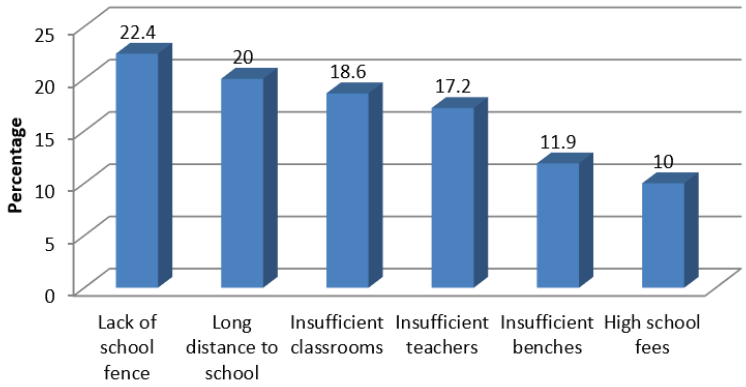

Figure 4: Challenges in rural educationin the Rural Mezam
Source: Field Work (2022)

breakdowns, and power failure are common. Schools are also located far off from some communities and children still trek over long distances to attend school (Figure 4).

Findings revealed that 22.4% of the rural population complained of the absence of school fences which allow intruders like thieves and stray animals also get into the school campuses looting, destroying gardens with crops and flowers. The population of rural Mezam also complained of long distance to school (20%) as pupils and students have to trek over long distances to get to schools. The results also show that 17.2% of the population complained of insufficient teachers in schools, 18.6% complained of insufficient classrooms, 11.9% complained of insufficient benches while 10% of the rural populations complained of high rates of school fees. Children still trek over long distances to attend schools, while those who graduate from secondary schools need to move out of their villages to have access to high school education. Observation revealed 63% of rural areas in Mezam where the remoteness of schools still constitutes a real hindrance to effective schooling. Children in remote parts of Bafut, Pinyin, Bawock and Babanki still attend school at older ages due to remoteness and long distances to schools.

Besides remoteness, the inaccessibility to other social services has been the cause of the lack of assiduity and punctuality of teachers in the countryside. Moreover, the teachers newly recruited into the civil service and private

sector who have mostly been trained in towns find it difficult to adapt themselves to an environment where there is no internet, no phone network, where the habitat is not decent, where there is shortage of drinking water and electricity, where their children cannot attend schools equipped with ICT as is the case in most villages in the Rural Mezam Division. There have been thus frequent absenteeism and job abandonments on the part of teachers. Most rural Mezam still run short of teachers due to these social problems.

Attacks on school buildings, teachers, parents and children have been frequent in the course of the Anglophone crisis. Almost 9 out of every 10 children have been out of school for nearly three years with 80% of schools closed in the Rural Mezam (UNESCO, 2019). Children forced to flee to bush areas have been left without access to any form of education. Children out of school face a myriad of severe protection risks including sexual exploitation and abuse, gender-based violence, harassment, recruitment by armed groups, arbitrary arrest, early marriage, pregnancy and child labour. Children have also been separated from their families during displacement or have had to head households as a result of their parents or care givers being killed during conflict. Schools that remain operational are significantly under-resourced. Most teachers are now out of work and the majority from the private sector is not receiving any salary. Those who are still able to work require training for teaching in a crisis context, including how to provide psychosocial support to children. The situation is aggravated by the politicization of education with the declaring that children should not go to school until a political solution is agreed. The crisis has slowed down and worsens the state of socio-economic development of Rural Mezam as most stakeholders are scared of the insecurity.

Challenges in the Water Supply Sector

Most households in the communities used water from small wells, springs, streams or river for daily activities. However, water from streams is unsafe because it is polluted by cattle and debris from soil erosion due to increased farming activities on watersheds. In addition, the supply of water from small wells or the streams and springs is often insufficient because of reduction of discharge during the dry season. Climate variability couples with unprotected nature of water catchments have all led to an increase in the number of intermittent streams with drastic drop in the base flow of most rivers in the region. Dry stand pipes, absence of potable water, unwillingness of some people to participate in realising potable water schemes has resulted to water rationing and other problems facing the water sector in the Rural Mezam (Figure 5).

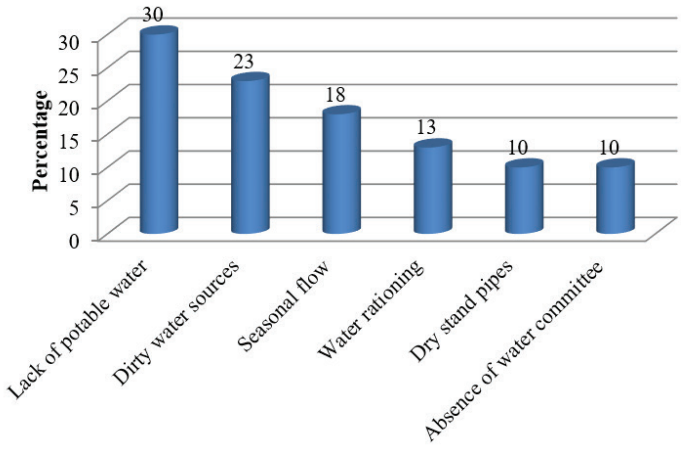

Figure 5: Challenges inWater Supply in the Rural Mezam
Source: Field Work (2022)

Figure 5 shows the challenges in the water supply sector in Rural Mezam. A majority (30%) of the population of rural Mezam lack of potable water while 23% complained of the dirty nature of drinking water, 18% complained of the seasonal flow of water sources, 13% complained about water rationing, dry standpipes as well as the absence of water management committee. Despite the internal and external efforts made to involve local communities in domestic water supply projects in the Rural Mezam Division, the problem of water shortages is still acute in the region. The problem lies in the fact that there is inadequate participation of local communities in water development projects. The populations are mostly involved in the implementation stages of project implementations while projects are mostly conceived by the well to do in society without the consultation of the masses. In addition, most of the large water projects that were established and managed by communities in the past have failed mainly due to population growths which has outgrown the capacities of these water schemes as is the case in Bafut and Bali. Some households have to trek for over long distances taking too much time to collect drinking water from the nearest spring during the dry season. This is common in cattle grazing areas like

northern Bafut and Sabga. Thus, clean water supply has been the main concern for local communities in the Rural Mezam. Potable water is drinkable, good for personal hygiene but each year millions of people die as aresult of dirty water (WHO, 2015)

Observations showed that village water projects were not efficiently operated as water was left flowing and wasted while other neighbourhoods lacked water. In addition, the small nature of water storage tanks of not more than 30m3 were designed to serve a small number of people in the villages and due to financial constraints, little efforts had been made to improve the scheme and increase the number of water points to meet the increasing populations. Water catchments in the community are also not protected and often invaded by cattle and farmers which have increased the number of seasonal streams and springs in the municipality. Increased in intermittent streams, population growths and water shortages during the dry season were the main reasons which caused the people to fetch water from doubtful sources posing a health risk to the people in most localities. This finding corroborate that of Ngwani *et al*, (2023) in Nkambe and Ndu who noticed that water from most sources is not treated exposing the populations to diseases.

At the household level, water consumption in sufficient quantity and quality minimum of 25 litres per capita per day is a basic human right (United Nations, 2010) which is indispensable for a healthy and productive life to reduced disease incidences, reduced health-related costs and improved socio-economic development. To improve the likelihood of sustainability, water supply schemes require co-financing, where households contribute part of the money, labour or materials to build facilities. These contributions are inadequately available in the Rural Mezam leading to water shortages.

Challenges in the Health Sector

Unfortunately health programs in the Rural Mezam often do not achieve their potential scale due to social, cultural and management factors which are linked to Health Workers and administrators who sometimes are positioned between the health sector and the rural communities.

Some of the health problems in the Rural Mezam include long distance covered by patience to get to hospitals, absence of specialist in health centres, absence of laboratories in health centres, absence of pro-pharmacist, insufficient nurses and ignorance on the part of the populations on the availability of some medical facilities in their communities due to poor communication (Figure 6).

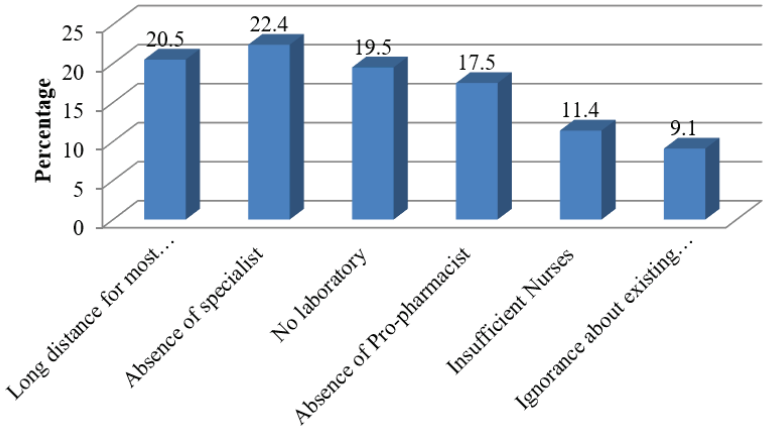

Figure 6: Challenges in the Health Sector in the Rural Mezam
Source: Field Work (2022)

Findings in figure 5 revealed that 22.4% of the rural population of Mezam do not have health specialists in the hospitals and health institutions which has force some of them to travel out of their communities to seek for medical care in Bamenda, 20.5% complained of long distances for most patience to get to the nearest health centre with inaccessible roads which further weaken patience, 19.5% lack laboratory in their health centre which makes it difficult for them to be tested and treated in their communities, 17.5% do not have pro-pharmacist which makes them to buy drugs from roadside vendors while 11.4% complained of the insufficient nurses in the health centres and hospitals to care for patients.

Rural Mezam is still to benefit from a well-established health and sanitation system due to insufficient health staff, insufficient experts, lack of toilets in some homes, open defecation of humans and animals, lack of potable water in some communities and their consequences in form of diseases and pest. Most of the health problems in the Rural Mezam Division are attributed to infectious or communicable diseases with preventable causes but the poor management of the health sector has kept the rural populations ignorant on how to go about some of these illnesses. The health situation of the rural population in Mezam is still relatively low due to challenges in the health sector. The poor, aged, handicapped and underprivileged that can neither pay nor trek to health centres are left ignorant and untreated.

The failure of government to sustainably develop rural Mezam has urged the rural people to seek for alternative adaptation measures to cope with the difficulties of rural under development. The rural people in Mezam have adopted different indigenous adaptation strategies in the sectors of agriculture, water supply, education, health and transport to cope.

Indigenous Coping strategies in Agriculture in the Rural Mezam

Some of the rural indigenous strategies adopted in the Rural Mezam include mixed cropping, mixed farming, field rotation, composting and use of manure, irrigation and njangi groups (Figure 7).

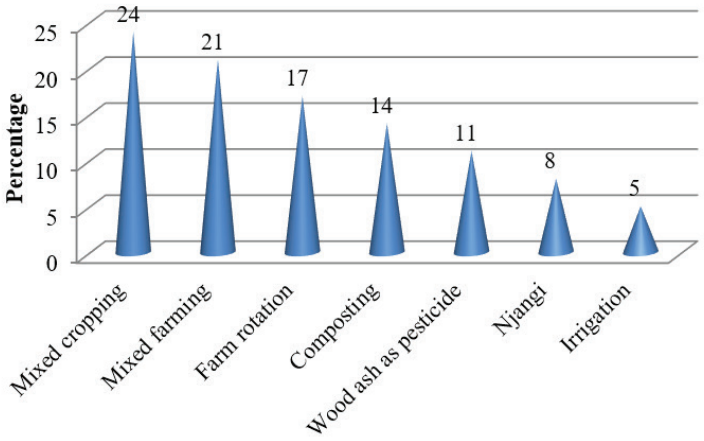

Figure 7: Indigenous Coping Strategies Agricultural Sector
Source: Field Work (2022)

Figure 7 shows the indigenous adaptation strategies in response to challenges face in the agricultural sector in rural Meza. The rural people in Meza have adopted local strategies to improve on their outputs. Findings revealed that 24% of the rural people in Mezam adopted mixed cropping. The results also indicated that 21% of the rural people have adopted mixed farming, 17% adopted farm rotation, 14% adopted composting, burning (Ankara), and the use of manure, 11% adopted the use of wood ash as pesticide, 8% belong to Njangi and CIGs while 5% adopted farm irrigation as a means of improving their outputs. The farmers are poor and cannot afford fertilizers to improve their yields. They also have small farm sizes since they cannot afford machines to plough large plots. As such the farmers adopt mixed cropping so that within the same farm, if one crop fails to produce good yields the other will help sustain the farmer. Mixed cropping also help improve soil fertility as the nodules of crops like beans do help improve soil fertility which boost farmers output. The farmers also rotate crop cultivation on the small pieces of land they cultivate so that tubers can help soften the soil while root nodules help improve soil fertility. A majority of farmers use compost manure mostly in 'Ankara' as well as animal and fowl dung to improve on soil fertility since they cannot afford fertilizers (Figure 8). However, the Ankara system is controversial as burning cause loss of hydrogen and kills soil organisms (Lambi 2001).

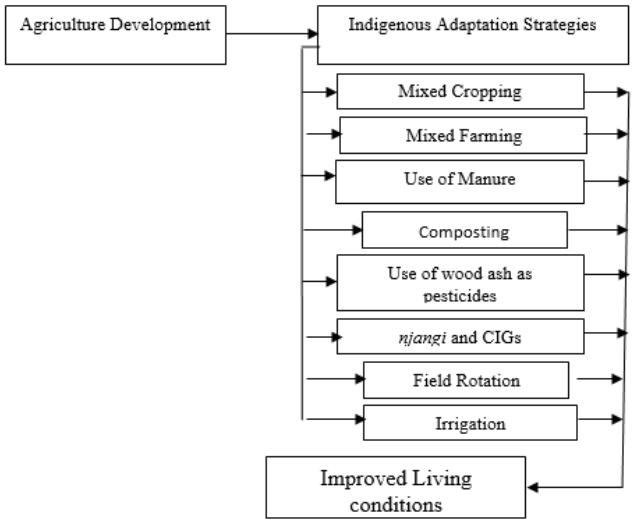

Figure 8: Indigenous agricultural coping strategies in the Rural Mezam
Source: Field Work (2022)

Figure 8 shows the various adaptation measures adopted by the rural farmers in Mezam in an effort to withstand the challenges in the agricultural sector. The farmers have adopted mixed farming technique to rear birds and animals as a source of protein as well as cultivate crops since they cannot afford buying from the mark*et al*l the time. Pest and diseases also affect crops cultivated by farmers and they mostly use wood ash to fight against blight affecting potatoes and vegetables since they cannot afford insecticide.

Some farmers maintain soil fertility by allowing farm plots to fallow, letting cattle to graze on fallow farms since cow dung helps to enrich the soil. Some farmers are trying to increase their income by getting into the process of their produce mostly through farmer's cooperatives but the high cost of processing machines coupled with the low income of farmers makes it difficult for most farmers to afford such machines.

Indigenous Coping Strategies in the Transport Sector

Rural participation has in most cases been implemented through Village Development Associations (VDAs) which get the rural people involved in community labour to improve on their transport and communication. The rural population has embarked on local indigenous strategies like the clearing of road sides, digging and levelling of roads, draining and filling of potholes, building culverts and bridges as well as the erection of rain gates (Figure 9).

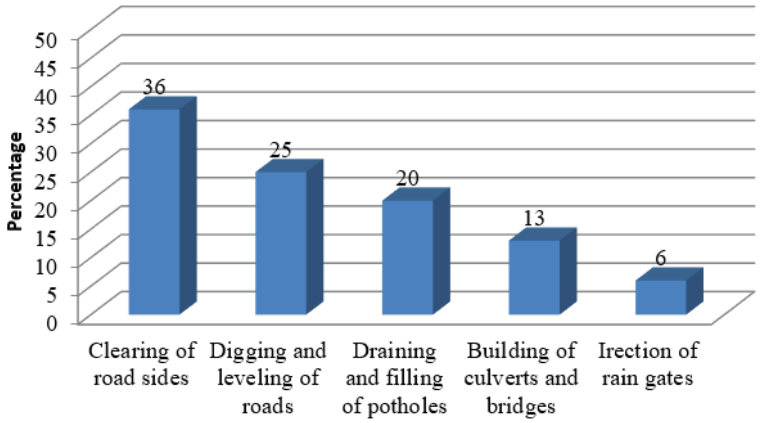

Figure 9: Indigenous Coping Strategies in Transport Sector
Source: Field Work (2022)

Figure 9 revealed that 36% of the rural people in Mezam Division have been clearing and cleaning road sides with cutlasses and hoes as a way of maintaining rural roads. The results also show that 25% of the rural people have been involve in the digging, widening and levelling of foot paths to create new roads in enclave communities for automobiles to access such. Also, 20% of the rural population has been involved in the draining and filling of potholes on rural roads, 13% involved in the building of culverts and bridges while 6% has been involved in the construction of rain gates. The rain gates prohibit heavy duty vehicles from using the rural earth roads during heavy rainstorms to limit the muddy and slippery nature of roads during the rainy season. All these strategies adopted by the rural people have help to improve on the state of rural roads but the seasonal nature of these roads still leave the rural populations in high need of well-constructed and maintained roads (Figure 10).

Figure 10: A locally constructed Bridge on a Farm-to-Market, Road in Pinyin, Santa Municipality
Source: Field Work (2022)

Photo 1 shows a locally constructed bridge on a farm-to-market road in Pinyin-Santa municipality. The populations of villages in the Rural Mezam have adopted the technique of constructing bridges with local materials like sticks and planks to link farm to market roads. These roads in most cases are not motorable but can be used by motor-bikes and pedestrians to transport inputs to farms and farm products to the market (Photo 2). The lessons learned from rural roads sector in the Rural Mezam Division still show short comings due to insufficient focus on road maintenance and community involvement. Despite rural adaptation strategies, the road sector underdeveloped. Poor road network especially farm to market roads make it difficult for circulation of vehicles and motor bikes leading to post-harvest loss. Experiences from community participatory projects are of great importance to rural road development and maintenance but effective community participation still lead to poor transport network as transport development is in a top-bottom approach.

Figure 11: Farmers using a Truck for transportation in Bafut
Source: Field Work (2022)

Photo 2 shows farmers using a truck for transportation on an earth road in the Bafut Municipality. The poor state of farm to market road in the Rural Mezam does not permit the free movement of vehicles. This has made the transportation of farm produce difficult causing farmers to adopt head portage and the use of trucks as well as motor bikes for transportation.

Indigenous Coping Strategies in the Health and Education

The high rate of unemployment, poverty, teenage pregnancy and poor health infrastructure further weakens the rural population rendering them unable to participate in the development of their communities. The rural people in Mezam have thus developed indigenous strategies of taking care of their health needs given the few medical specialist and insufficient facilities. Health care delivery in the Rural Mezam has thus utilized community volunteers from time to time in different forms to link the community with the health care system. Community based volunteers are often involved in giving health education, Maternal and child health and family welfare services, management of minor ailments, first aid and vaccinations. The rural people also visit herbalist and traditional doctors to get solutions to their health needs as well as get involved in sanitation activities (Figure 12).

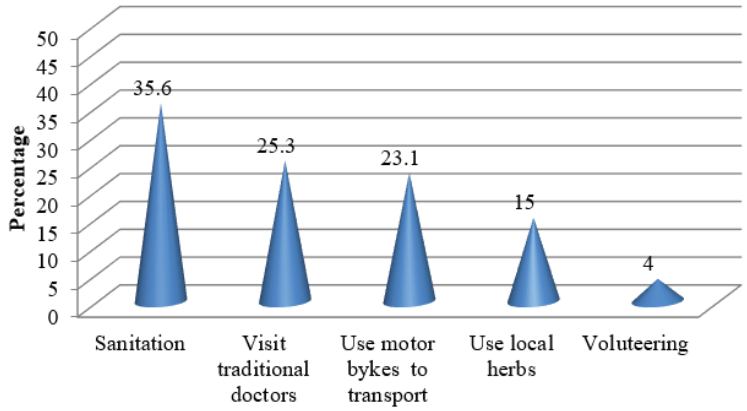

Figure 12: Health Sector Coping Strategies
Source: Field Work (2022)

The people of rural Mezam have adopted local strategies to prevent, treat and reduce the rate of infections in their various communities. Findings from figure 10 revealed that 35.6% are involved in sanitation activities such as watering, sweeping, laundry washing of utensils in their homes. The people are also involved in clearing around their immediate surroundings, water supply sources construction of latrines in homes, markets, churches and schools. The results also show that 25.3% of the population visit traditional doctors to seek for treatment given the fact that health centres are not up to expectation while 15% of the population use herbs and back of trees as medicine for treatment. Given the few available health centres and the long distances to get to them, 23.1% of the population use bikes and at times trek to get the health centres or traditional doctors to get treatment. Only 4% of the rural people are involved in volunteering and sensitisation due to their low levels of education and little or no compensation for voluntary services. Some diseases like malaria and fractures from accidents have been carefully handled in these rural communities through these indigenous health strategies thus reducing the health burden in the community.

However, these indigenous health strategies are of great help to the rural populations in Mezam given the fact that the state and the private sector have not been able to fully provide the essentials of rural health system. The indigenous health strategies are still not efficient enough thus leaving the rural areas in need of sustainable health facilities. Comprehensive care coordination is an essential element of a high performance system because it facilitates patient-centre care integration; effectively utilizes scarce rural resources; and improves clinical quality through timely information sharing among clinicians, patients, caregivers, and community-based support providers which Rural Mezam Division is still lacking.

The people have also resorted to the construction of classrooms, toilets and administrative blocks, providing benches and didactic materials, provision of potable water, electricity and payment of teachers in a move to reduce the challenges affecting the educational sector in the Rural Mezam (Figure 11).

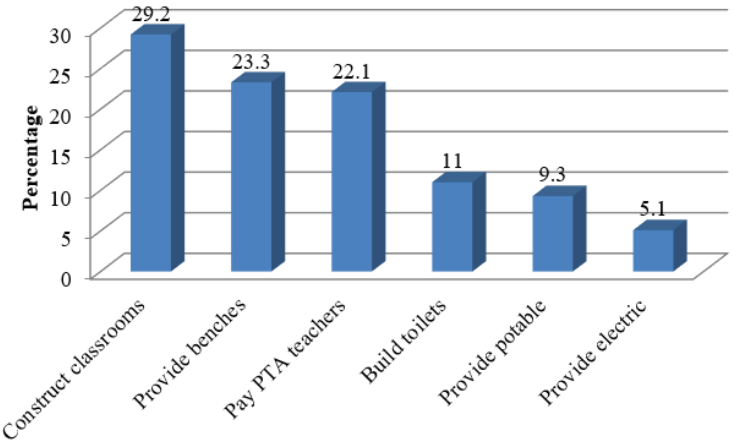

Figure 13: Coping Strategies the in Educational Sector
Source: Field Work (2022)

Figure 13 shows that 29.2% of the population has been involved in the construction of classrooms and administrative blocks in the various schools in the Rural Mezam Division to solve the problem of insufficient classrooms while 23.3% had participated in the provision of benches to schools to solve the problem of insufficient benches in schools. Findings also revealed that 22.1% of the population of rural Mezam Division has been involved in the payment of PTA levees. This money had been used to pay PTA teachers, buy didactic materials

Figure 14: Books donation by PTA at COTECC Bafut, Location: Latitudes 6˙70˙N and Longitudes 09˙89˙ E
Source: Field Work (2022)

and other school needs. The population (11%) has also been involved in the building of toilets in schools in an effort to improve on the sanitation situation in schools and reduce the rate of infections among school children while 9.3% had been involved in the provision of potable water in schools and 5.1% had been involved in the provision of electricity to run computer laboratories and other school machines especially in technical schools. All these contributions and others like donation of text books, drinking pales and sensitisations have been aimed at reducing the burden of school needs which have not been met by Rural Councils and other administrative units involved in rural development in Mezam (Photo 3). Photo 3 shows the donation of books by PTA at COTECC Bafut. The inability of parents to fully acquire school materials for their children has made the PTA s to adopt the approach of assisting students with books and other school materials in an effort to boost education in the Rural Mezam. Involvement of the parents and the community in School management and more so in budgeting and allocation of funds to meet various expenses helps them to understand how the money they contribute through fees payment and PTA levees are spent. As a result, they are likely to appreciate the use of resources that they provide and they could be inspired to provide more. This has enabled them to provide infrastructure and give resources according to priorities and capability.

Indigenous Coping Strategies in Water Supply in the Rural Mezam

The rural populations in Mezam have resorted to water harvesting, segmenting water uses along streams and rivers, clearing and cleaning around streams and springs, as well as digging wells and trenches for access to improved water sources (Figure 12).

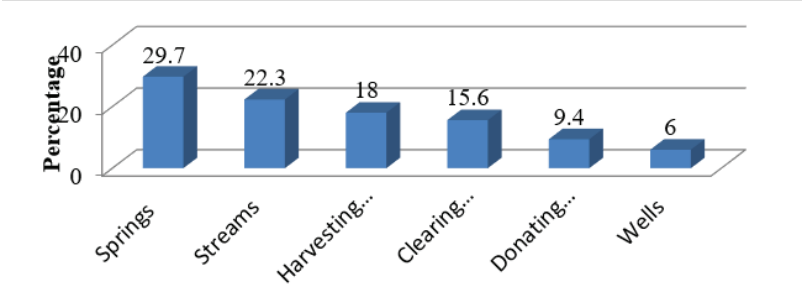

Figure 15: Indigenous Coping Strategies in Water Sector
Source: Field Work (2022)

Findings shows that majority (29.7%) of the rural people have resorted to springs as their sources of drinking water given the absence of potable water in their communities. Findings also show that 22.3% of the population depends on streams as sources of drinking water while 18% of the people depend on water harvesting during the raining season. Rural Mezam is not a water deficient community but access to clean drinkable water is still a problem and 15% of the rural population confirmed to have participated in the clearing and cleaning their sources of water for accessibility and to maintain its clean state while 9.4% of the population had participated in the digging of trenches for the laying of pipes to connect water and 6% had been getting their drinking water from wells. The few wells are explained by the fact that they are costly to construct by individuals and shallow wells do dry up during the dry season thus making the water crisis in the Rural Mezam more acute. In areas like upper Bafut where cattle rearing are common, cattle do invade drinking water sources amongst other human activities.

Access to potable water remains a great challenge in the 21st century as water scarcity affects over 40% of

Longitudes 09˚68˚ E

Latitudes 6˚74˚N

Figure 16: Laundry in a small stream at Agyati, Bafut Municipality
Source: Field Work (2022)

the world's population (WHO, 2018). Clean water and sanitation is called to question as to whether it availability will be achieved by 2030 (SDG No.6). Safe and affordable drinking water is the dream of most people in the Rural Mezam. This is in line with Kimengsi *et al* (2015) that water problems in buea are fuelled by poor planning of local council and government.

Some villagers have segmented water uses along major streams reserving the upper courses of streams for drinking water sources while laundry, bathing and animals drinking are reserved respectively in the lower courses of the streams. Some springs and stream courses are serving as shrines to limit human activities in these areas and reserve these water sources for the rural populations. These indigenous strategies have reduced the amount of turbidity in water sources but the challenges and access to good drinking water are still much available in the Rural Mezam Division (Photo 4).

Photo 4 shows women doing laundry in stream at Agyati in the Bafut municipality. The shortage and at times absence of potable water makes women and children to carry out laundry in streams since transporting water over long distances to for domestic activities becomes difficult. Collecting and carrying large amounts of water is physically demanding and limits time available to pursue educational, professional and leisure activities. Moreover, women and girls risk physical and sexual assault when collecting water or trying to find a sanitized location to relieve themselves. Access to potable drinking water and secure sanitation facilities is recognized as a human right. However, the importance of water, particularly in rural communities, lies not only in its requirement for sustaining life. Water is necessary for food production, economic activities and environmental integrity, which all contribute to human wellbeing. The incidence of water-based (schistosomiasis), waterborne (cholera), water-related (malaria) and water-washed (example, scabies) diseases can be abated through the sustainable and affordable access to improved water supply and better hygiene services which Rural Mezam Division is still lacking. Safe drinking water, basic toilet and hygien practices have become scarce with locals being victims of their scarce impacts. This finding is similar to that of Ngwani *et al* in 2023 and African Policy Circle (2020) who associated these scarcities to poor planning and governance.

CONCLUSION

The indigenous people in the Rural Mezam go through major difficulties given the failure of stakeholders to improve on the living conditions of the rural people through rural development projects. The state at all levels and development partners have not really succeeded in mobilizing resources to achieve the desired infrastructural needs of the rural people in Mezam Division. Decisions towards community development are taken by project initiators, with little or no involvement of community members. The rural people in their frustration tend to adopt indigenous strategies in the various rural development sectors which are not sustainable for their livelihoods. A sound rural development policy must be sustainable, efficient and affordable which would require a fundamental shift in attitudes and techniques, thereby encouraging planning with the communities at the grass-root which is still to be achieved in the Rural Mezam.

RECOMMENDATIONS

Rural developmental projects should therefore be planned and executed by the rural councils as custodians of rural development with the support of other stakeholders like the NGOs, CBOs, the State and development cooperation agencies.

Effective sensitisation and empowerment of the rural people as well as the collaboration between the stakeholders enhanced by the pivotal role of the rural councils will build enhance confidence in the various stakeholders.

There is growing consensus that for community-managed projects to succeed, they require good governance that provides an enabling environment for the local populations to wrest a living and to improve upon their living standards. Good governance in the management of community projects is articulated around effectiveness in the rule of law, accountability, participation and engagement, and equitable sharing of project-related benefits and responsibilities. Good governance in Municipal Council projects must focus on rights, responsibilities, revenue/returns from the projects, and relationships between local stakeholders.

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