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**Physical Enclavement and Livelihoods of Peasants in Menchum Valley, North West Region, Cameroon**

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**Abstract:**

This work seeks to evaluate, the links between the physical effects of enclavement and the development of the rural sector in Menchum Valley of the North West Region of Cameroon. It postulates the deterrent effect of physical enclavement on the livelihood of the people. Data collected from the field between 2017 and 2019 using the survey method (quantitative and qualitative methods 96 questionnaires administered, 6 focus groups, and 530 sample size), was treated using SPSS and Excel. The findings brought out 3 basic issues which are: enclavement naturally affects the inputs and output in the area, it discourages peasants' agricultural sales as the main source of livelihood and inaccessibility induced by physical enclavement<sup>1</sup> principally in the rainy season makes movement in and out of the area difficult and renders the people poor due to the fact that there are few buyers and many sellers thus supply greater than demand and prices are low. A total of 80% of the respondents think that the Menchum Falls (nature's gift to the Valley) can be a very strong force in disenclaving Menchum Valley and improving on their quality of live of the people if a dam to harness electricity is constructed on it.

**Keywords:**

*Physical Enclavement, livelihood, peasants, Menchum Valley*

## 1. INTRODUCTION

Physical enclavement caused by physical obstacles in Menchum Valley with a population 50235 (2005 GPHC<sup>1</sup>), is a major problem within Menchum Valley in Cameroon. The dwellers are looking for ways to disenclave such it in order to reduce poverty and enhance rural development. The word enclavement is understood in different ways by different people. In Menchum Valley, this word is synonymous to spatial isolation (J. Debie 2001), spatial closeness, an area which is difficult to access due to physical obstacles, an area with population dispersion, an area with relative economic lack, an area with no or inadequate infrastructure, an administrative attachment to towns and a dependence on a system of transport which is questionable amongst others. In Menchum Valley enclavement is directly linked to spatial inaccessibility.

However, other schools of thought say that the geographic situation of a place is not the lone factor that determines the enclavement of an area (H. Viellard-Baron 2005). As such to talk of enclavement, a relative systematic approach should be solicited. By implication here, enclavement is directly linked to spatial accessibility determined by physical obstacles. In Menchum Valley, enclavement is felt through poor connectivity between it and the outside world, especially with the pitiable transport infrastructure and local networks which are to permit the areas integration to an open system. It also denotes a people with poor interaction between them and the different functional occupations on the landscape. Socio-cultural and political organizational problems here are associated to enclavement. This brings out the diverse perspective of enclavement which is not just physical, but economic, social, cultural and cognitive all linked to the natural obstacles.

Some geographers (Steck, Varlet, Debie) far from a purely spatial dimension define enclavement on the basis of poor transport infrastructure. They evoked the enclavement of certain residential quarters due to poor transport networks. Redoutey et al 2003, linked enclavement to spatial, political, and social closeness, of an area which refers to the physical landscape. Thus, enclavement is a complex phenomenon of different opinions which is inscribed in a global conception of rural development. Enclavement in our context also denotes mental slavery, where a free person decides what he should do with his time and talents and the natural environment placed at his disposal and refuse to think and act positively for himself and the community, and wants others to think for him. He looks for someone to blame for his failures. The things that the Esimbi people a tribe within this area for example went through in life brought them under the grip of inferiority complex whereby they were compelled to submit themselves in false humility to just any kind of people. People in this area do not venture to create projects and realize them and lack service to their respective communities. Enclavement

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<sup>1</sup> General Population and Housing Census

also in our study area can be looked upon as a situation where people lack self confidence or have an inferiority complex and are unable to stand up and strive for what they want. These transmit underdevelopment which can be seen as a close associate to enclavement especially in the isolated forest villages of Menchum Valley. This article will be divided into two parts. Part one shows the physical enclavement of Menchum valley and part two shows its implication on the livelihood of peasants.

This research is to uncover how natural intervening factors<sup>2</sup> like high rugged landscape, hydrological features of fast flowing rivers, over flown rivers, rivers with no bridges, heavy rainfall, landslides, heavy trees and wild animals increase the enclaved nature of Menchum valley and the consequences of poverty on the peasants livelihood. The objective of this article is to establish the manifestations of physical enclavement prone to influence the livelihood of peasants. The main theory used is the behavioural change model of Everett Rogers<sup>3</sup> which creates awareness on new ideas giving the adopters the decision to accept or reject innovation which can be through persuasion and ensure rural development. Adaptation means people of Menchum Valley should do things differently than they had before, to enable them move forward. With the innovation theory, we will be able to compare the available resources on the available space and how the inhabitants overcome physical challenges for a better livelihood.

## **2 METHODS AND TOOLS**

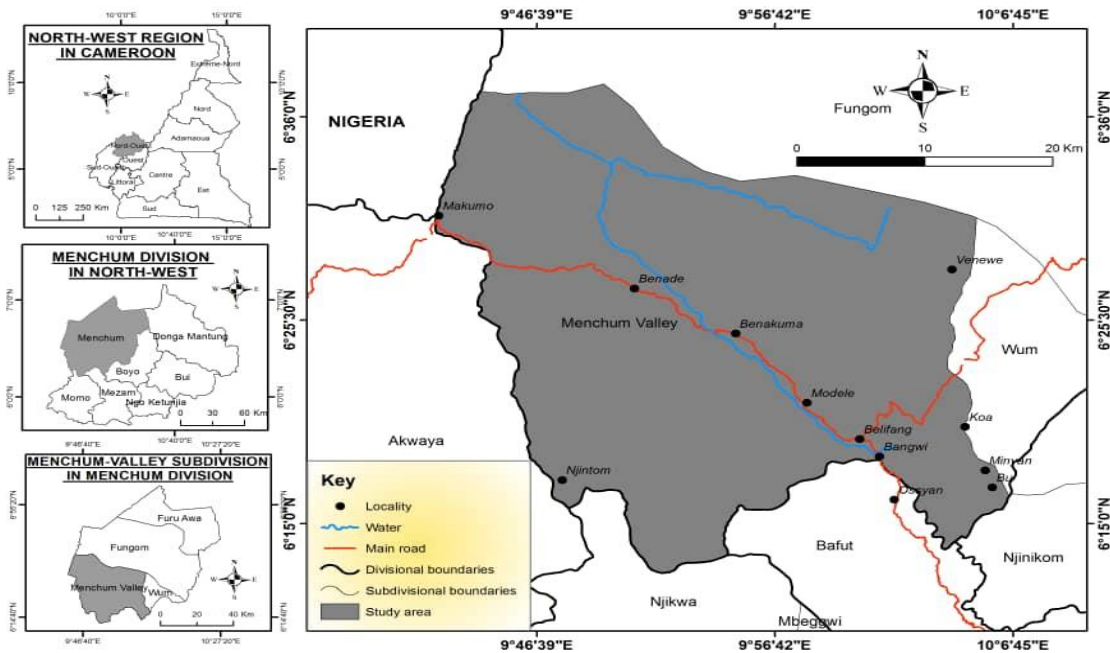
### **2.1 The study area**

The area covers a surface area of 1050km<sup>2</sup> which is representing some 23.5% of the whole surface area of Menchum Division. the area has a population of over 50235 inhabitants with a population density of 48 persons per kilometer squared<sup>4</sup> and a growth rate of 3%. Menchum Valley Sub Division which is located between latitude 6°15.0'N and 6° 36.0' N of the equator and between longitude 9°46'.39''E and longitude 10°6'45'' E of Greenwich lies within the equatorial region of Cameroon and specifically within the humid tropics as seen in the map 1 below.

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<sup>2</sup> Natural intervening factors(relief, drainage, climate, fauna and flora) increase the enclave nature of MV

<sup>3</sup> The key to development is adaptation of persons to new ideas, behavior, or products as new or innovative.  
(Benakuma Council Development Plan BCDP)

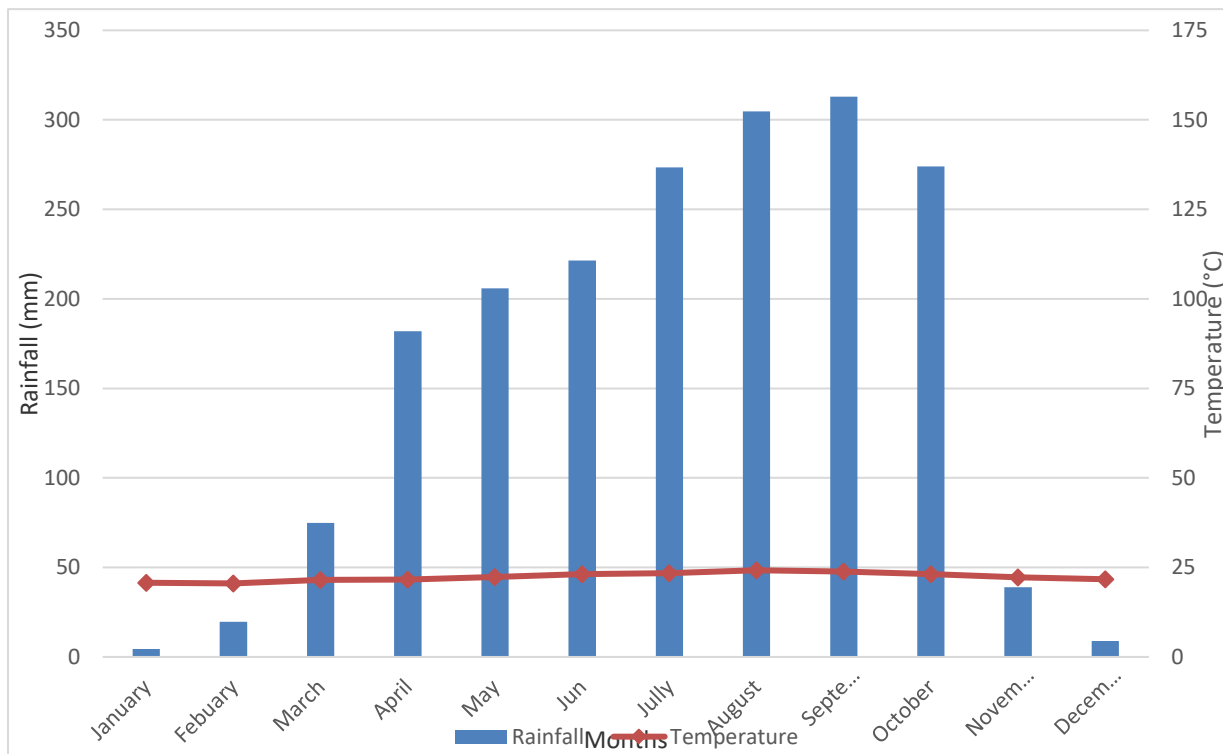


**Map 1: The location of Menchum Valley in Cameroon**

Source: National institute of cartography harnessed by Aye Adela Azie

The map portrays the main river (Menchum) and road that cuts across the valley. The inhabitants are extensively spread in the valleys due in part to the knotty terrain and fast following rivers that dissect the area and also due to the fact that the people follow nature for their livelihood. Menchum Valley one of the four Sub Divisions that make up Menchum Division located some 80km north of Bamenda capital of the North West Region of Cameroon is one of the areas with more than 30 enclaved villages in the region that faces difficulties due to the physical nature of the topography of the area. There is no part of Menchum Valley that does not suffer from the problem of enclavement of their rural landscape particularly during the raining season as a result of natural intervening factors such as precipitation in the form of heavy rain fall, over flown rivers, heavy trees, landslides and natural relief features that act as deterrents to rural development and affect the livelihood of peasants who are the main dwellers of the valley. Use has been made of the physical aspects like relief, drainage features of fast flowing rivers with indicators of no bridges etc, biotic factor chiefly of tall trees that disturb the construction of roads and the movement of people and goods from one direction to another in and out of our study area distinctively. The effects of climate on the above physical features that make the area more enclaved are also examined.

Menchum Valley falls within the humid tropics with high rain fall throughout the year and high temperature throughout the year. It is considered a very wet area throughout the year with 3-4 months of dryness and 8 months of wetness. Being in a forest area it is constantly wet which is a problem to the valley because the roads within the locality are constantly muddy and at times sink between the months of July and September making access to the area very difficult with motorable engines. As shown on the monthly rainfall of the Bamenda high lands (latitude 5° 56' and longitude 10°09'E with an altitude of 1668.0 m within where Menchum Valley is found). The graph below shows the rainfall amount and the temperature data for Menchum Valley between 1982 and 2014.



**Figure 1: Climograph of MV 1982-2014 showing total amount of rainfall and the temperatures**

Source: Bamenda Meteorological Station (2018)

Figure one above shows that the range in the rainfall amount within the valley is very small. It ranges between 2824mm to 1500mm per year. Generally, rainfall is can be qualified as high throughout the year. In most of the years the rainfall amount is above 2000mm. Heavy rainfall witnessed within Menchum Valley between the years 1962 to 2004 aggravated the enclaved nature of the area through the destruction of the few existing earth roads in the area. Flooding, peril to human life, dented buildings and infrastructure, loss of crops and livestock

especially around major rivers like the Menchum, the occurrence of landslides along the main road from Bamenda to Menchum Valley which equally affects the dwellers within the area, the disruption of transport and communication by these landslides has multiple effects on the environment and the inhabitants of the area.

## 2.2 Data collection and analysis

The survey method and the systematic random sampling techniques were used to carry out this research. Primary and secondary methods of data collection were also used. For the primary method, we did a face to face interview with 8 people within the area that is 2 chiefs in the Benakuma area, 2 chiefs in the Beba Befang area, 1 quarter head in the Baworo area and 3 farmers in the area. We did 3 visits to these individuals only on “traditional days” which is Wednesday in Benakuma and in the Beba-Befang area the days were rotating according to the week’s calendar. This gave us an insight into the enclavement difficulties caused by the physical barriers in the Valley. The primary information gotten was analyzed by extracting the useful information to enrich our work. We also administered 96 questionnaires to the people mostly in the Littoral Region because most of them had been displaced by the crises plaguing their area of origin.

The sample size of this research work was subjectively selected in reference to the total population size of the areas as seen in table 1 below.

**Table 1: Total population sample of Menchum Valley**

Sectors	Total determined population per area sampled	Population sample per area	Percentage (%)
Benakuma area	265	48	50
Baworo area	132	24	25
Benade area	44	8	8.3
Beba-Befang area	89	16	16.7
Total	530	96	100

Source: Field Work 2018

The total population of each area helped in the carving out of the sample used as seen in the table 1 to carry out our investigations on the results. We did a content analysis of the questionnaires.

6 focus groups discussions were organized in the valley made of youth groups who revealed to us that despite the enclaved nature of the locality there are still advantages that can accrue from the natural environment or the physical milieu. We also did a content analysis of the data to obtain the results.

### **3 RESULTS AND DISCUSSION**

#### **3.1 Presentation of results and analysis**

The physical enclavement<sup>5</sup> of Menchum Valley is evident through the use of the relief of the area that is linked to the climate, vegetation and soils. The natural water bodies and rivers scattered all over the terrain (hydrology) make the area enclaved coupled with other environmental stresses of very steep slopes along the main rivers, constant landslides, and floods directly affect the different activities of the people especially in the agricultural sector, and displacement from one geographical unit to another. From our research we got the following results and analysed them to suit our objective of linking the physical effects of enclavement in Menchum Valley with the livelihood of the peasants in the locality.

##### **3.1.1 Physical Enclavement**

###### **Relief features that spur spatial enclavement in Menchum Valley**

Menchum Valley is vast and its relief is characterized by hills, plateaux, and undulating lowlands. In the lowlands, there are numerous river beds that serve as a source of water to about 95% of the population of the area. The plateaux are traversed by mountains with steep slopes, often cut by bisected valleys. Outstanding physical features of the area include mountain cliffs, with large waterfalls and are carved around the Befang valleys and the Bosong Highlands with steep slopes. The highest peak of the area is 1539m above sea level (NIC)<sup>6</sup> and it is the highlands boarding Ikake village and the Fungom villages. The mountainous relief of this area has its own constraints on accessibility of the villages of Menchum Valley and the transport infrastructure in particular. Relief in general is an important aspect that influences spatial enclavement and accessibility of places in Menchum Valley Sub Division. The movement of people and goods is most often hindered or made tedious by the different mountains and hills especially when it comes to climbing with load on the head or back. The peasants we interviewed within the study area explain that they take longer hours to reach their farms and market since the presence of natural barriers acts as an obstacle to their smooth movement. Spatial enclavement is very pronounced when going to most hilly villages of Menchum Valley<sup>7</sup>. Women we met coming back from the farm on foot explained how exhausted they were after climbing the Bosong highlands in Menchum Valley.

Spatial Enclavement in Menchum Valley is equally evident within the plains. Though we have very flat land around some of the villages like Benakuma, Benange, Ambo, the valleys

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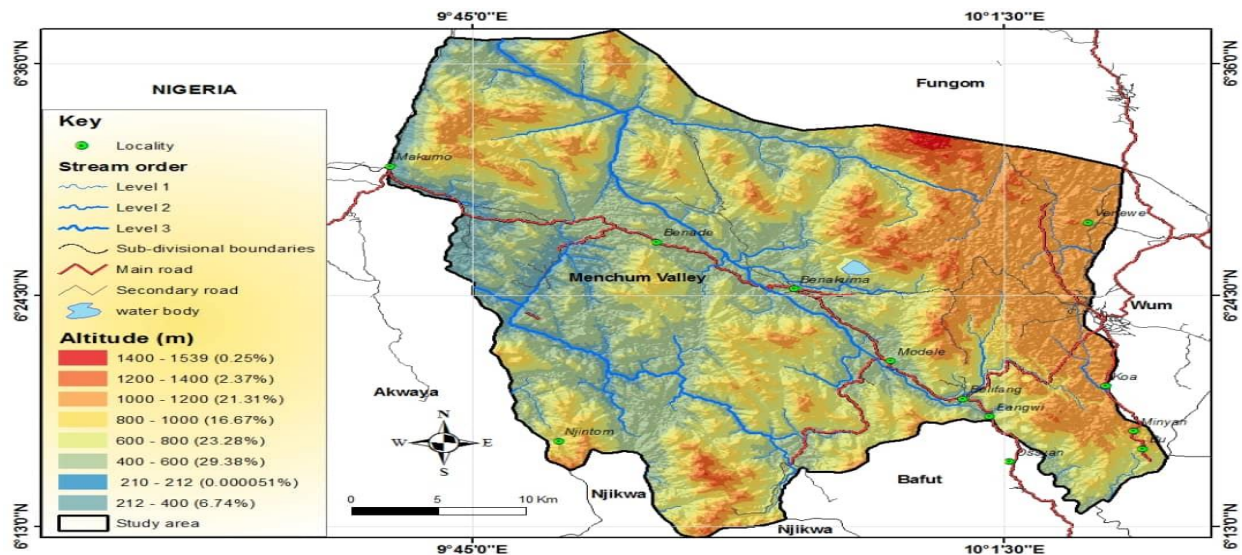
<sup>5</sup> Enclavement caused by the natural aspects of the environment (climate, vegetation, soils, hydrology and steep slopes)

<sup>6</sup> NIC National Institute of cartography

<sup>7</sup> Some of the hilly villages of the valley include Benakuhu, Mukuru, Okomanjang, most of the villages in the Beba clan like Agha, Mbekuyam, Moalla

equally cause slow movement because of excessive mud during the rainy season and the slippery nature of the soil. From the focus group discussions we had, we were made to understand that most valleys are flooded and mud accumulates in such a way that even motorable engine and the dwellers find it difficult to move from one direction to another. It slows down movement and people waste a lot of time on the way mainly in the rainy season and the development of the area is retarded. This explains the fact that moving from Fombe (Beba) to Bamenda, can take as much as 2 days whereas if the area is disenclave, it can just be a journey of about 3 to 4 hours. It holds same for Bamenda – Baworo, stretch of the road. The inhabitants are battling with this situation through the development of short cuts. They have created tracks through the hills linking Menchum Valley to its neighbours which they use for trekking on daily bases.

One of the focus group discussions in Benakuma revealed that the topography of Menchum Valley is complex for road construction by locals given the gorges and deep valleys and the steep slopes. This explains the difficulty in the evacuation of farm produce by the peasants. With an average altitude of 800m the relief of Menchum Valley constitutes a major obstacle to accessibility and movement of the population. About 65% of the relief of Menchum Valley is made up of hills and mountains while 35% is made up of valleys. The detail analysis of the relief of Menchum Valley will be shown and explained by the map 2 of Menchum Valley below produced through the use of the digital elevation model (DEM).



Map 2: Relief map of Menchum Valley

Source: Digital Elevation Modem (harnessed by Aye Adela Azie 2018)

The above map reveals that within the study area, 6.74% is found on the altitude of 212 to 400 meters above sea level. These zones are found in the river valleys very close to the rivers



that criss cross the area. These areas are often deserted by the inhabitants for habitation due to the fact that they are most often open to natural catastrophes' like mud flow, land slide around the steep slopes bordering such valleys. Also, a major characteristic of these areas is the fact that they are open to floods and mud after a heavy down pour. These areas are very difficult to access in both the rainy and the dry season. Though rich in alluvial soils and frequently cultivated by farmers especially for market gardening crops during the dry season, the area is not very much used since even the footpaths leading to such enclaved lands are so slippery and muddy. 29.38% of the total surface area of Menchum Valley is of altitude of 400-600m above sea level. Though still open to environmental problems of landslides, floods and mud flow, these areas of the valley are scrambled over by farmers for agricultural reasons. There are fertile but not very deep at the foot of the steep slopes. Most of the houses and roads are constructed around this stretch of land. 23.28% of the surface is of altitude of 600-800m. From field evidence, the stretch of land around this altitude is good for agricultural activities and settlement construction. What's more, 16.67% of the land is covered by land with a height of between 800-1000m. 21.31% is of altitude 1000-1200m and 2.37% and .25% is covered with an area of height 1200-1539m.

The many hilly areas make road construction expensive and difficult with the human hands. This explains the reason why the area has only one main road that follows the level area along the banks of the main river Menchum. The financial resources needed to disenclave this area according to the chief of Benakuma is very big. Thus, the local community cannot raise enough funds for its disenclavement and it will only be done by the government and other partners in rural development like Non Governmental Organizations (NGOS), the Local Councils, and other stake holders. Some of the roads linking Modele, Mokuru, Okomanjang, and Beba are practically impassable during the rainy season due to heavy rains that creates deep gullies and gutters with most of the parts pregnant with pot holes. From the relief map 2 it shows that above 80% of the villages of Menchum Valley do not have motorable roads used by vehicles daily.

About 80% of Menchum Valley is rural but a main characteristic that distinguishes it from other areas in Cameroon is the fact that it has very deep valleys especially around the main rivers. Also, the area is covered with a mountainous relief having waterfalls, with rocky cliffs.

This is the case with the Menchum River (Main River of the area) with a very big water fall specifically around the Befang village as seen in the picture 1.



**Photo 1: Deep gorge with the Menchum Fall waterfalls**

Source: Aye Adela Azie (June 2018)

Mountainous relief of this area has its own constraints on accessibility of the villages of Menchum Valley and the transport infrastructure in particular. Relief in general is an important aspect that influences spatial enclavement and accessibility of places in Menchum Valley. The movement of people and goods is most often hindered or made tedious by the different mountains and hills especially when it comes to climbing with load on the head or back. Most of the peasants within the study area in responding to the questionnaires explained that they take longer hours to reach their farms and market since the presence of natural barriers acts as an obstacle to their smooth movement

**The Drainage aspect of enclavement in Menchum valley that deter rural development**

Findings proved that Menchum Valley is covered with many rivers that transverse the area These rivers include: the R. Menchum (largest) from where the name of the division originated, R. Bakere (Mokere) that cuts across Beba, Benabinge, Batomo, Benagudi, Benatidi, Baworo and empties its water in the Katsina-Ala river that enters the Federal Republic of Nigeria, the Beneng river that takes its rise in the Fougom Subdivision and flows towards Beneng villages and empties its water in the Menchum river. Other rivers: Ime, Mefehe, Mofie, and a variety of big streams criss-cross the area. All these rivers form a dendretic parttern across the valley.

The different stream order in the study area which indicates the movement and distribution of the different rivers and streams within Menchum Valley are examined. Map 2 is significant because the different stake holders involved in rural development, that deal with extremes of enclavement leading to difficulties in movement will mobilise resources for the disenclavement of the area. All these will help the rural dwellers to be able to live a better life and impact on their livelihood through flood avoidance when constructing their settlements and when selecting sites for construction of roads and settlements.

However, apart from the fact that R. Menchum is perturbing the construction of bridges by the peasants across different areas within the valley, more than 80% of those answered the questionnaires that is  $(80/100 \times 96 = 77 \text{ people})$  indicated that this river stands out to be one of the ways by which Menchum Valley and the whole of West Africa can be disenclave. Firstly by using the Menchum Falls to harness electricity and by so doing real development will be brought to Menchum Valley and the whole of Cameroon and West Africa.

The dwellers of Menchum Valley encounter difficulties when transporting their products in the rainy and dry season due to muddy and dusty roads, lack of bridges across major rivers, and high transport cost as described by table 2 below

**Table 2: Difficulties encountered when transporting products in Menchum Valley**

<b>Difficulty encountered when transporting your Produce</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	muddy/dusty roads	51	53.13	53.13	53.13
	no bridges	31	32.29	32.29	85.42

high transport cost	14	14.58	14.45	100.0
Total	96	100.0	100.0	

Source: Field work 2018

All these render 85% of the villages of Menchum Valley to be enclaved and isolated due to difficulties of interacting with other neighboring areas.

Other rivers within Menchum valley are very difficult to cross over especially during the rainy season. These include: R. Bosong and its tributaries, the Beneng River, and the Bakere River. Enclavement problems are linked to certain inequalities in putting in place infrastructure of development. This infrastructure includes bridges over rivers that are non-existent in most parts of Menchum Valley and renders the place to be enclaved. Examples can be seen in the plate 1 below where dwellers cross over the rivers Boku, Mefehe, Bakere, and Bosong inside water because there no bridges.



**Plate 1: Four Rivers without bridges in Menchum Valley**

Source: Aye Adela Azie (April 2018)

This renders the area enclaved during the periods of high tides between July, August and September. Map 2 of Menchum Valley above reveal that about 85% of the area is inaccessible. Just one main road pass through the area and very few secondary roads are available. There are many foot paths that link the villages and also the villages with the urban areas around. Coupled

with the hydrological causes of enclavement is the presence of the thick forest around river valleys that hinder the free movement of people, goods and services in the area due to difficulties in road construction. Soil deposition from the hill tops to the valleys reduces the mobility of people within the valley due to the fact that the soils are sticky, slippery and muddy after it rains. People take longer hours to access their different areas of interest. Rivers overflow and crossing over can only be possible by using canoes as seen in the photo 2 below.



**Photo 2: People using local made boats to cross river Menchum in Benahundu Ebere Ogu**

Source: Aye Adela Azie (July 2018)

Photo 2 indicates some of the rivers within Menchum valley without bridges. The rural dwellers are bound to suffer problems of enclavement because during the rainy season with over flooding, it becomes dangerous for the inhabitants to transport themselves and their goods to the market, and from the farms to their homes. This problem is brought about by physical enclavement of the study area.

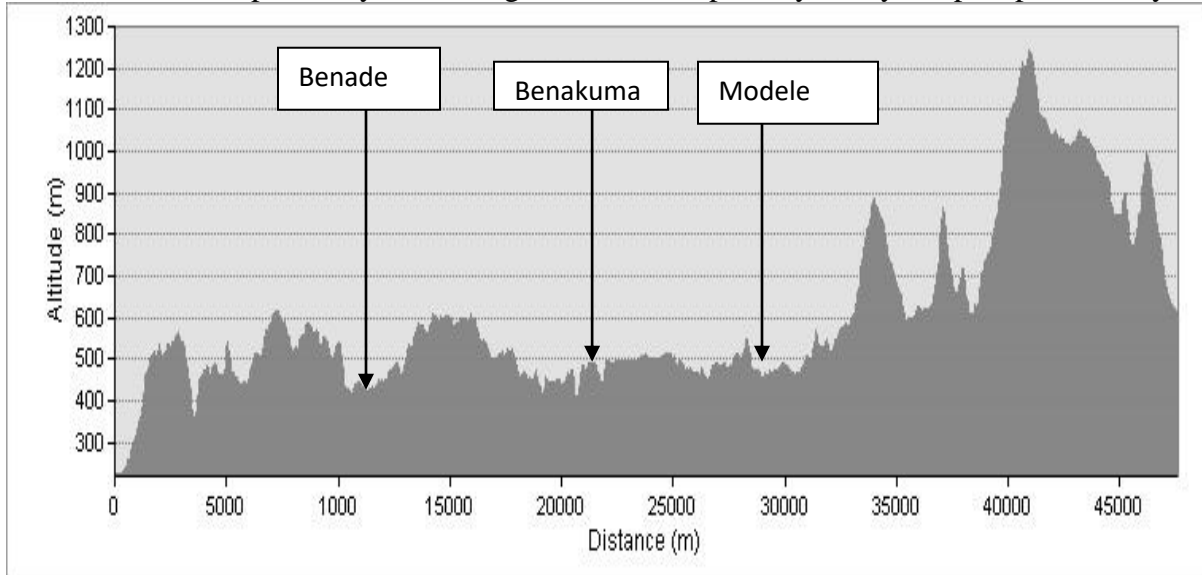
### **Role of climate on the enclavement of Menchum Valley**

Climate which is closely linked to vegetation and relief has its own part in the enclavement of Menchum Valley. We discovered the roads turn out to be practically impassable during the rainy season because of mud provoked by heavy rains. Wild grass and heavy trees grow along the river valleys making road construction and accessibility difficult. Climate is considered as the long term averages of weather (that is the day to or hour to hour atmospheric condition of a place at a particular time). The meteorological averages commonly measured to

produce such averages include temperature, humidity, atmospheric pressure, wind and precipitation. However, in Menchum Valley, the averages are mostly for rainfall and temperatures because the data for the other elements have not been gotten in our research. The climate of Menchum Valley is affected by its latitude, landscape, and altitude.

### Slopes and the enclavement of Menchum Valley

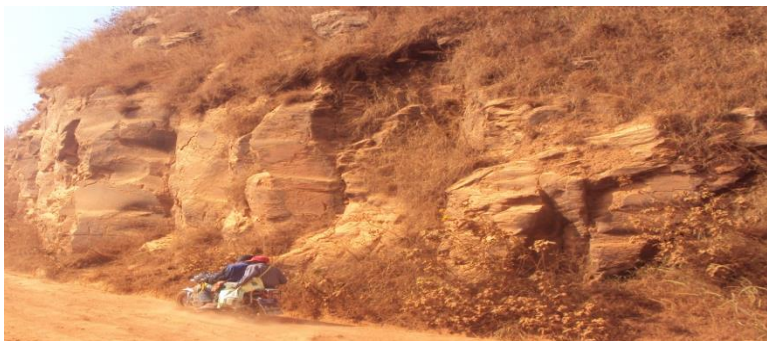
The landscape is very undulating with hills, deep valleys, very steep slopes at every level.



**Figure 1: Spatial indications of altitude, distance and slopes in MV**

Source: Shuttle Rader Topography Mission harnessed by Aye Adela Azie

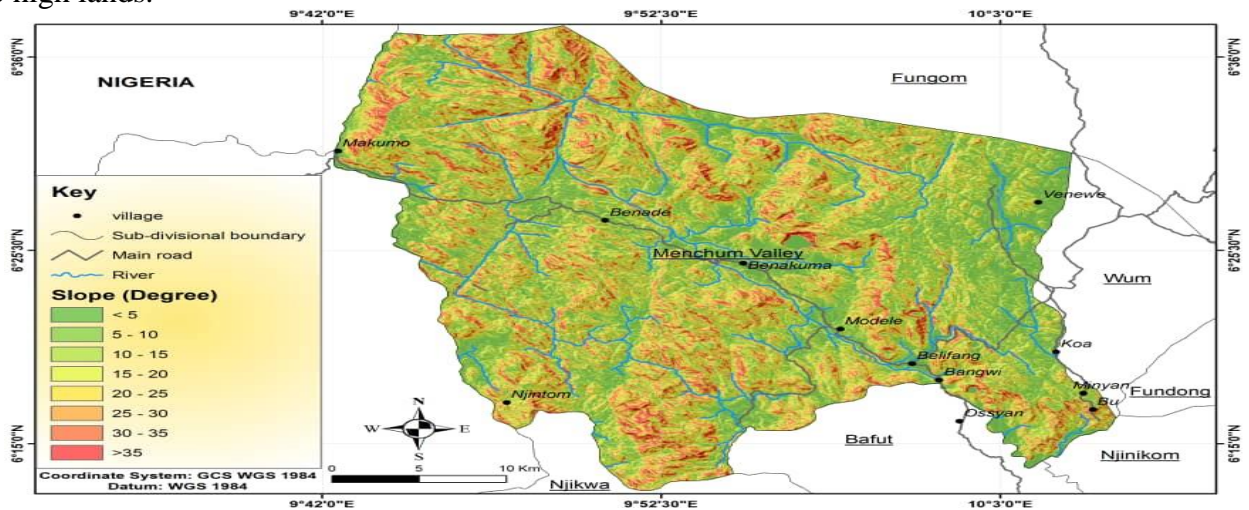
The cross section above reveals that the landscape of Menchum Valley is undulating, with hills, very deep valley, level plains, and very steep slopes falling down the Valleys. The height ranges between 400m above sea level to closs to 1300m. This type of landscape has a lot to do with the enclaved nature of the terrain since road construction and other connecting tracts are difficult to be put in place. We discovered extremes within the area with very steep and rugged slopes that cannot permit the real functioning of economic activities like agriculture, road construction and settlements.



**Photo 3: Steep slope along the Bamenda-Baworo stretch of the road**

Source: Aye AdelaAzie (April 2018)

From photo 3 we see the very steep nature of one of the slopes in Menchum along the Baworo high lands.



**Map 3: The degree of steepness of slopes in Menchum Valley**  
 Source: Digital Elevation Model harnessed by Aye Adela Azie

As shown by the map 3 above, the areas around the river valleys with steepness of below < 5 are very close to the major rivers and are very flat. Away from the river valleys, the slopes are gentle in steepness between 5 and 10, 10 and 15 mostly used for settlement and agriculture. The value between 20 and 25 in steepness, 25 and 30, and above 35 show the great steepness of the area. A percentage of over 60 are covered by slopes with very rugged terrain avoided by the peasants for construction and agriculture given their steep nature. The steepness is increasing in direction of steepness towards the waterfall around Befang villages.

### 3.1.2 Impact of physical Enclavement on the economic development and Livelihood of Peasants

Enclavement greatly affects the livelihood of peasants through different economic activities like agriculture, marketing and transportation of goods and services and through its influence on social activities.

In the agricultural domain, mostly valley agriculture is carried out in the greater part of the year due to the scramble for natural fertility from the soil in Menchum Valley. Only 36.12% of the area is low lying and found around the river valleys. These are the areas most scrambled for by the farmers who depend on natural fertility of the soil. High land agriculture is also practiced in some of the localities of MV mostly seasonally. It is the main economic backbone of

Menchum Valley and occupation of the inhabitants that provides employment directly and indirectly for about 85% of the population. Cash crops like, groundnuts, cocoa , palm-oil , egusi ,”ndjanssa”,and arable crops like cassava, plantains, yams, maize are produced. Groundnut is the chief cash crop though the exact quantity produced in a year is not well known. The above products serve as food for man and raw materials for agro-industries within and outside Cameroon and they also provide revenue to famers and generate income to the Banakuma council.

Agricultural products are often heavy, cheap, and get rotten fast and thus must be carried from their zone of cultivation within the shortest possible time and cost to the market for sale. Thus it requires a good transport net work for these products to be taken to the markets. It’s unfortunate that the means of transportation hinders agricultural productivity since it affects the inputs, outputs that enter the area and sale of products. The few earth roads mostly seasonal all over the valley are in a bad state throughout the year and affect the transportation and marketing of the products. The topography of Menchum Valley is difficult for road construction given the gorges and deep valleys and the steep slopes. This explains the difficulty in the evacuation of farm produce by the peasants. With an average altitude of 800m the relief of Menchum Valley constitutes a major obstacle to accessibility and movement of the population. About 65% of the relief of Menchum Valley is made up of mountains while 35% is made up of valleys. Man, motorbikes and vehicles only struggle to ply the area out of difficulties during the wet season as seen in photo 4 below.



**Photo 4: muddy roads in the valleys due to heavy**

Source: Aye Adela Azie (June 2018)



Flood induced inaccessibility makes the valleys very muddy and slippery as evident in photo 4. “Moving with load on the backs becomes a night mere” as explained by one of the peasants interviewed. As a consequence, most of the produce as firewood, food crops (cassava; plantains) get rotten on the farms due to spatial enclavement. This situation renders the peasants poor despite the fact that they work very hard each day of their lives.

Results in the transport domain prove that Menchum Valley is made of many villages which are not connected with good roads. Thus accessibility between them is very knotty.

**Table 3: Opinion of respondents about roads in Menchum Valley**

		<b>Opinion about road</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	bad	94	97.0	97.0	97.0
	good	2	3.0	3.0	100.0
	Total	96	100.0	100.0	

Source: Field Work 2018

Though the climate, soils and other factors may favor crop production, the distances to the market are made tedious, time wasting by very poor roads that are very muddy and dusty; rivers with no bridges, hilly terrain that is tiresome, increases transport cost, and reduces the access to social services and facilities. Spatial ENC is very visible when going to villages like: Benakuhu, Mukuru okumanjang, Beba especially climbing up to Agah, Mbekoyam and Moalla hills. Plate 2 below show women coming back from the farm exhausted after climbing the Bosong highlands. They act as porter since they don’t have any other way of transporting their products.



**Plate 2: Women transporting fuel wood and food on her backs to the Benakuma market**

Source: Aye Adela Azie,(January 2018)

Rivers without bridges in Ikake, Mukuru, okomanjang, Beneng, Ayenaboh, Ambo, Batomo, Benabinge, Benakuhu, Benefumu, Bejinge, Benatidi, Bakere, Bichulu, Uchusi, Ifung, and Bajini are very visible. These areas are criss-crossed by numerous streams with waterfalls. Most of the rivers have no bridges over them on different areas of the clans. Some of the rivers that are very large disturb the free circulation of people and goods from one part of the valley to another act as a real deterrent to rural development. Dwellers of some parts of Menchum valley like Ikake, Beneng, and Bosong suffer a lot with the crossing of fast flowing rivers with no bridges.

The inhabitants of such villages develop traditional bridges for their local use. However, as revealed by a focus group of 15 people in Bosong village, these traditional bridges do not serve the population adequately especially when the peasants carry heavy load from their farms and are to take to the market. Most of the peasants with load always prefer to cross such large rivers inside. During the rainy season most of the farmers drawn or loss their children who attempt to cross inside the rivers when the tides are high. One of such rivers for example is the river Beneng that interweave the road leading to the Beneng village and the village of one of the most enclaved areas in Menchum Valley Ikake. The inhabitants have created a traditional bridge which as revealed by one of the dwellers to the researcher can be frightful to cross. Photo5 below illustrate this situation.



**Photo 5: Hanging Bridge over River Beneng (Menchum Valley)**

Source: Aye Adela Azie (August 2018)

Photo 5 shows the situation in the Valley where the indigenes learn to construct traditional bridges to help them for their day to day activities. This case over river Beneng is just one of the many situations in the Valley. The main river of the valley is R. Menchum that cuts across many villages like Befang where the Menchum falls is found, Modelle, Benakuma, Benahundu, Benade, Bufi, Bawuro, Bahende, and Ambo villages right down to R. Kashina-Alla that enters the Federal Republic of Nigeria. R. Menchum with many speedy running streams merge with Katsina-Alla giving a dendratic network. River Menchum is the main tributary to Katsina-Alla in Nigeria. This River we discovered is a mixed blessing to the people of the valley and to Cameroon in general. This is because some 78 respondents say that, the river Menchum cuts across several spots on the main road linking Bamenda and Baworo and acts as a major constraint to the construction of local bridges. The different spots that cut the roads need bridges and most often they acts as a hindrance to their development. This gives rise to the fact that the major form of transport remains the head and backs of women supported by a few motto bikes that struggle among all ought to ply the area.

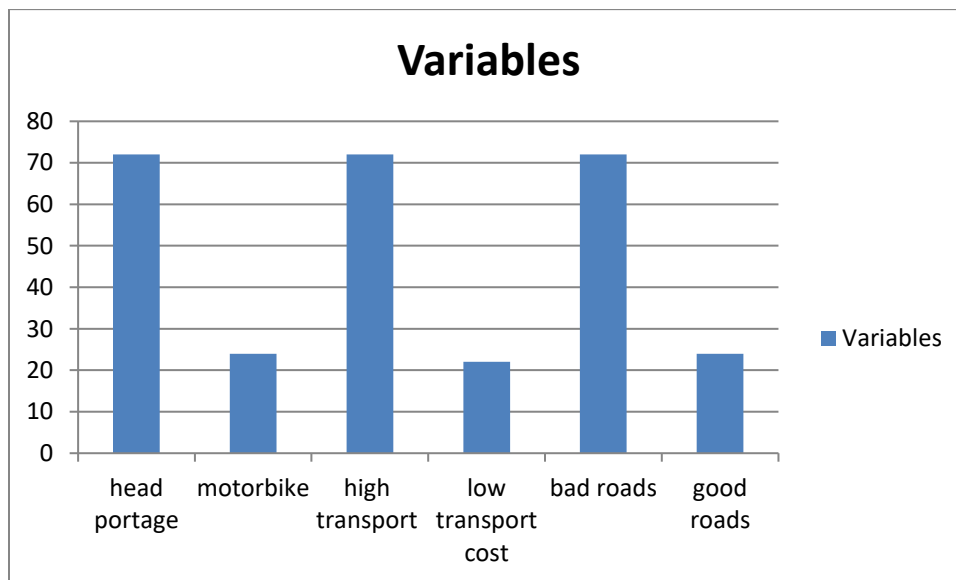


Figure 2: Main indicators of physical enclavement variables in Menchum Valley  
 Source: Field work 2018

The Figure 2 above indicates that the major form of transportation of goods is on the head and backs of the peasants in rural Menchum Valley. We also discovered that transport cost to and from the area is very high throughout the year a portrayed by the chart above where about

95% of respondents indicated that the transport cost remains high throughout the year due to difficulties in plying the area.

### **3.1.3 Impact of enclavement on social activities**

Our findings show a negative correlation between enclavement and the development of social facilities and activities in Menchum Valley.

-In the educational domain, the quality of the environment is poor in terms of infrastructure, overcrowding, sanitation, and violence.

-The area lacks proper facilities and educators, witness difficulties in employing the teaching staff due to lack of trained personnel and poverty.

- Those employed are of doubtful quality and the children are thought the doubtful content.

-This calls for the importance of connecting Menchum Valley villages to reduce the rate of poverty and disenclave the area in order to improve on the rural infrastructure and educational growth.

- 80% of those interviewed attest to the fact that weather trends in enclaves determine the activities of the indigenous people. For instance, most children absent from school due to flood induced inaccessibility after a heavy down pour or when rivers overflow their banks.

- With dilapidating classrooms rain and wind send children home before the end of 2:30pm that is the official closing time.

-The sanitary condition in most of the schools is very questionable. Children carry water for drinking from nearby rivers in which they carry out many other activities. Some of the school children especially the very big ones do not see the need to be shouted at or corrected by their teachers when they commit crimes since they see it as enslavement.

-School children prefer to visit river Menchum in the early hours of the morning, catch fish, pick nuts around their environment and prepare oil from it harvest cassava in the farms around the house eat and stay home without doing anything. Those who attain school feel that the teachers have no right to correct them thus cause a lot of violence in the school milieu.

-In this work it was discovered that most areas blessed by natural resources, the indigenous people remain lazy and do not progress since palm wine remains the order of the day.

-In the health domain, the dwellers of Menchum Valley suffer a lot due to enclavement.

Here, the vulnerable like the old, disabled, pregnant women suffer the most. Some even die because it was impossible to reach nearby hospitals in towns on time due to inaccessibility.

-Disenclaving Menchum Valley will help in healthcare through pre- healthcare. Medical doctors and nurses together with supplies can only be available in health units if the area is disenclave, by maintaining rural roads, and connecting these areas with the nearby towns.

-On settlement and rural exodus, about 25% of the youthful population move out of the area as young as 15 years old to nearby towns and cities. These towns include Bamenda, Baffoussam, Nkongsamba, Dschang, Yaounde and Douala. Due to enormous economic lack, poverty, lack of social facilities<sup>8</sup> the youthful population of the area is pushed out the place each year to areas they think provides them with better opportunities of life.

-Those who settle in the village get married very early and start producing children as young as the age of 14 for girls and 16 for boys. As revealed by an elderly person in the valley most of the young population runs out of the very enclaved areas of the Valley.

However, the enclaved nature of the area has some positive values that it brings to the community. The people in the different villages live a communal life as they carry out most of the social and economic activities together<sup>9</sup>. They have developed a collective strategy of doing work together so as to reduce the time taken to do work or move from one part of the village to another or from village to village for agricultural reasons. Doing work individually, remains very tedious and time consuming as attested by some of the dwellers of the valley. Some socio-economic activities carried out in groups include the following:

**Table 4: Collective Strategy of doing work in the Valley due to enclavement**

Activity	Individual	Collective
Farming	Few	Many
“Njangis groups”	Few	Many
Visits	few	Many
“Cry die”	/	All
“Born houses”	Few	Many
Transportation of agric products from the farms to the market and houses	Few	Many

<sup>8</sup> Social facilities here include electricity, good health facilities, educational infrastructure, good roads that are not pregnant with potholes, cinema halls etc

<sup>9</sup> Cry dies, born houses, farming in groups, marriages, cultural ceremonies

Source: Field work Aye Adela Azie November 2018

The table above indicates that most of the activities carried out by the people of the valley are collective. They have groups composed of children from 10-15 years, 16years to about 20years and groups made up of women and men who always work in synergy for their collective benefits. They clear farms, plant, and weed and harvest crops on hired bases (Azie 2017). They save the money gotten from this venture and buy common goods like rice, salt, meat and use at the end of the year celebrations. Whether work on the farm, dancing at a ceremony, transporting goods, the do it collectively with songs and they say it becomes less strenuous and less time consuming.

### **3.2 Discussion**

Spatial enclavement in Menchum Valley is perceptible within the plains and mountainous areas. Around some of the villages like Benakuma, Benange, Ambo (level villages), the valleys dawdling down movement due to disproportionate floods induced mud during the rainy season. Most valleys are teeming and mud accumulates in such a way that motorable engine and the dwellers find it difficult to travel from one direction to another. Spatial enclavement becomes visible since it slows down movement and people waste a lot of time on the way especially in the rainy season, and development of the area is retarded. Moving from Batomo to Bamenda can take as much as 2-3 days. If the area is disenclave, it can just be a journey of about 3 to 5 hours. It holds same for Bamenda – Baworo, stretch of the road. According to Yesguer p. 8 enclavement begins with the study of transport systems and local networks in particular since it helps in the integration of rural space into open system. Space here refers to a field of action where development activities take place and within our work it is a rural area isolated in its interaction with its neighbours. So, enclavement rein in this sense is elaborated in connection with the open or physical space, in the economic and socio- political domains bringing in clearly the immaterial and psychological aspects of it. Thus, the polysemic nature of enclavement is not only an issue of language but it is a geographical reality that does not only talk of the problems of networks (B. Steck 2000 p. 27) that falls under economic enclavement but the physical aspect of it brought about because of the difficult terrain and fast flowing rivers that render assess to different geographical regions bordering Menchum Valley difficult. This makes particular areas to be looked upon as open spaces while others are described as closed spaces.

Open geographical spaces describe areas with easy accessibility and closed geographical spaces describe areas that have difficult terrains and thus accessibility becomes knotty. This is the case with many areas within the forest regions with difficult accessibility due to bad roads or seasonal roads that are relatively good mostly in the dry season and are described as very bad during the rainy season, areas with heavy trees that make it difficult for dwellers to open up roads as a linkage to other neighbouring regions due to low level of technology. With difficulty of opening up roads, the area remains enclaved since the distance between it and other places becomes epistemologically long as people take longer time to leave the area for other places. A distance of 5km between Ikake and Bosong will take over 6 hours since people are forced to trek over hills, for lack of roads and motorable engines to ply the area. Distances between places are prolonged not because of the geographical distances between them that can be measured in km but for the reason that people spend more than enough time on the roads due to the rough terrain, roads pregnant with potholes or physical enclavement of the areas.

The natural water bodies and rivers scattered all over the terrain (hydrology) make the area enclaved coupled with other environmental stresses of very steep slopes along the main rivers, constant landslides, and floods directly affect the different activities of the people especially in the agricultural sector, and displacement from one geographical unit to another. As P. Starkey (2014) puts it, “it is of importance in connecting rural people to reduce the poverty of isolation. It is very clear that enclavement is related to rural isolation, in which service providers especially health workers are unable to reach enclaved areas. According to Shezad Baloch (5-12-2011), “we want our next generation to be educated, and competent enough to meet the challenges of the future”. How will this be possible in enclaves?

A total of 77 (80%) respondents think that the Menchum Falls can be a very strong force in disenclaving Menchum Valley and improving on their quality of live if electricity is harnessed from it.

### **Conclusion**

Our findings brought out the situation of peasants who toil every day for a livelihood in Menchum Valley but are still unable to come out of the doldrums of drudgery and penury due to the physical enclave nature of the locality. It evaluated the disincentive effect of physical enclavement on the livelihood of the people. Low technological advancement, the inaccessibility induced by the physical enclavement of the area mainly in the wet season, naturally affect inputs

and outputs in the area. Agricultural development is limited to the traditional techniques and movement in and out of the area is difficult and affects the living standards of the dwellers disapprovingly. The economic and social wellbeing of the peasants is determined by the natural difficult milieu they find themselves in. A preponderance of the peasant above 70% are primary school drop outs. With the above situation most of them do not easily adapt innovations brought in or take a very long time to slowly adapt to it. The end result of this spatial system is to embrace new ideas and behaviour, or products. Stake holders or rural developers should insist that the peasants should learn to adopt innovations. They should do things differently than what they had previously. The key to adaptation is that the peasants must perceive the idea, behaviour, or products as new innovations. Through this, diffusion is possible (Everett R. 1971). The nature's potential, Menchum Fall should be harnessed and the area disenclave from it.

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