UNIVERSITE DE YAOUNDE I
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CENTRE DE RECHERCHE ET DE FORMATION DOCTORALE EN SCIENCES HUMAINES ET SOCIALES EDUCATIVES
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THE UNIVERSITY OF YAOUNDE I
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POST GRADUATE SCHOOL FOR THE SOCIAL AND EDUCATIONAL SCIENCES
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DOCTORAL RESEARCH UNIT FOR SOCIAL SCIENCES
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THE INFLUENCE OF BAMENDA - MAMFE ROAD INFRASTRUCTURE TO THE SOCIO-ECONOMIC DEVELOPMENT OF MAMFE CENTRAL

A dissertation submitted and defended on the 02 August 2022 in partial fulfillment of the requirements for the award of a Master's Degree in Geography

SPECIALITY
Rural and Urban Dynamics

OPTION
Rural Dynamics

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DEDICATION

To my parents; Ayuk Moses Tabi and Mariana Taku Tabi and Cornalia Nyenti Tabi

ACKNOWLEDGEMENTS

I express my profound heart felt gratitude to my supervisor Doctor Tende RenzTichafogwe for his unflinching devotion to the successful realisation of this work. His constructive, valuable criticisms and immeasurable suggestions have immensely added value to this work. I equally acknowledge his valuable readings, corrections and helpful comments helped which fine-tuned and gave shape to this work.

My heart felt appreciation and special thanks go to the entire staff of the geography department. I call to mind Professor Tchawa Paul (Head of department), Professor Kengne Fodouop, Professor Dogmo Louis, (of blessed memory) Professor Ngoufor Roger, Professor Moupou Moise, Professor Ojuku Tiafack, Professor Nkwemoh Clement, Professor Youta Happi, Professor Mougoue Benoit and Professor Enchaw Gabriel Bachange for impacting a great deal of knowledge to me that has greatly upgraded my educational standards.

Special thanks go to Mr.Tufoin Kilian Diang who dedicated his precious time for reading and correctingthis work as well as his orientation of the study. Despite his busy schedule, he did not relent his efforts to see that this work was well done. I am indebted to him for his immense contribution in the realisation of this work. Equally, I extend my sincere appreciation and gratitude to Doctor Bongajum Simplice and Dr. Banboye Gilbert for reading and correcting the manuscripts and helping me out during this time.

Worth acknowledging are the efforts of those who tirelessly assisted in the collection of data. I think here of my course mate Saffe Eric, the former mayor of Mamfe council (Ayuk Takunchong), Mr Agborsum Peter Agbor. Great thanks to all the field respondents in Mamfe for their matured understanding and unreserved cooperation that helped in obtaining information.

The useful contributions of the libraries visited particularly the different libraries of the University of Yaoundé 1, which were very rich and gratified. The constructive criticisms, gestures, intellectual cooperation and moral encouragement of my course mates are highly rated. I call to mind Nancy Mbah and Saffeh Eric

I am highly indebted to my brothers Tabi Thompson and Agbor Benson and sisters Ashumanyi Emelia and Ayuk Melvis for their outstanding moral, material, and financial assistance. Sincere thanks go to my friend Rodrique Kaze

ABSTRACT

It is commonly said, *where a road passes, development follows*. This holds strongly to the construction of the Bamenda-Mamfe road which has triggered socio-economic development particularly in the town of Mamfe and its environs. However, the developmental aspects have also been accompanied by a series of setbacks such as; rapid urbanization and related ills, illicit trade and challenges confronting the road users. It was against this gloomy background that this study sets out to investigate the relationship between the construction of the Bamenda-Mamfe high way to the socio-economic development of Mamfe town. This work sets out to examinethe influence of the Mamfe-Bamenda road to the socio-economic development of Mamfe town. Three hypotheses were set to guide the study. Research methods and techniques that were adopted and used led to data collection, processing and analysis. Primary data was gotten through filed surveys where a total of 110 respondents from 7 quarters of Mamfe Sub-division provided the responses. Additional primary data was gotten through, interviews, focus group discussions and observation. The data gotten from questionnaires was processed using Microsoft Excel while Satellite images were processed using Landsat (1986, and 2020). Secondary data was gotten from published and unpublished documents from libraries and websites.

Inferential and non-inferential analyses were effectuated that paved the way for the testing of hypotheses, drawing up meaningful conclusions, suggestions and policy implementations. The outcome of the data collected, treated, analysed and interpreted revealed that rapid urbanisation have been recorded in the town of Mamfe since the construction of the high way as indicated by the Landsate images of 1986 and 2020. Response score (59%) against 21 % revealed similar results. Respondents' opinions also showed that the construction of the high way has foster cross-border trade between Cameroon and neighbouring Nigeria (91.8% against 8.2%) which has gone a long way to increase the socio-economic lives of the inhabitants. The study equally found out that communication challenges (30%) administrative 45.5 % socio-economic 9% and 15.5% respectively were challenges confronting road users along the Mamfe-Bamenda stretch of road. In line with the results obtained by this study, the study recommends effective implementation of house planning policies in Mamfe town resulting from rapid urbanisation. More so, control of the flow of illicit cross-border trade articles is also imperative and proper road maintenance to keep users safe when using the road. This will save effectively the purpose of the road which will sought a broad base for socio-economic development of the region as a whole.

Key words: Mamfe-Bamenda high way, Socio-economic development, Mamfe town and road

RESUME

Comme le dit l'adage *« là où la route passe le développement suit »*, la construction de la route Bamenda-Mamfé a déclenché un développement socio-économique dans la ville de Manfé et ses environs. Ce pendant ce développement a été accompagné d'une série de maux aux quelle sont confronté les utilisateurs de cette route : notamment urbanisation rapide, le commerce illicite et les maladies migratoires.

C'est dans ce contexte que cette étude est menée pour enquêter sur la relation entre la construction de la route Bamenda-Mamfe et le développement socio-économique de la ville de Mamfe. Ce travail prévoit d'examiner l'influence de la route de Mamfe-Bamenda sur développement socio-économique de la ville de Mamfe. Quatre hypothèses ont été définies pour guider l'étude. Les méthodes de recherche et les techniques adoptées et utilisées ont permis la collecte, le traitement et d'analyse des données. Les données primaires obtenues à travers des enquêtes menées sur 110 participants de 7 quartiers de l'arrondissement de Mamfe ont fourni les réponses. Des données supplémentaires ont été obtenues lors des entretiens, des discussions et des observations dans les groupes de discussion formés. Les données obtenues à partir du questionnaire ont été traitées à l'aide de Microsoft Excel tandis que des images satellitaires ont été traitées à l'aide de Landsat (1986 et 2020). Les données secondaires ont été obtenues à partir de la consultation des travaux antérieurs dans les bibliothèques et les sites Web. Des analyses différentielles et non différentielles effectuées ont permis à la formulation des hypothèses, à élaborer des conclusions significatives, à des suggestions et des mises en œuvre des politiques. Les données collectées, traitées, analysées et interprétées ont révélé que l'urbanisation rapide a été enregistrée dans la ville de Mamfe depuis la construction de la route, comme indiqué par les images de Landsat de 1986 et 2020 ; de même que la réponse affirmative donnée pas 59% des personnes interrogées contre 21% d'affirmation contraire. Les réponses des personnes interrogées ont également montré que la construction de la route a favorisé le commerce transfrontalier entre le Cameroun et le Nigéria (91,8% contre 8,2%). L'étude a également montré que la route est utilisée pour les besoins de communication (30%), administratifs (45,5%), socio-économiques (9% et 15,5%). Conformément aux résultats obtenus par cette étude, il est recommandé une implication efficace des politiques de planification dans la ville de Mamfe ce qui aura pour conséquence une urbanisation rapide. Aussi le contrôle du flux des produits commerciaux transfrontaliers est également impératif et un entretien de la route approprié pour que les utilisateurs soient en sécurité lors de leur déplacement. Tout ceci permettrait de conserver cette route donc le but est de favoriser le développement socio-économique de la région dans son ensemble.

Mots-clés: Route Mamfe-Bamenda, Développement socio-économique, Ville de Mamfe et ses routes.

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GENERAL INTRODUCTION

1.1 Background to the study

Roads play a crucial role in our lives. They facilitate movement and permit the realization of personal convenience, economic prosperity and social goals. The benefits of roads range from improved safety and better access to jobs to the preservation and enhancement of personal freedom and independence. The mobility enabled by roads is the foundation of a modern developed society. The economics of a road network is complicated by joint consumption and externalities. Some benefits of roads are received free by all citizens regardless of their road use. The provision of cvfire, police and school bus service, for example, is contingent upon the existence of roads. At the same time, the benefits to road users are not constant. As the number of drivers and the interaction between drivers rises, the system becomes congested and all users experience reduced benefits. Although long lived, the cost of building and maintaining roads is high. If only the private costs and benefits of roads are considered, the road network is likely to suffer under investment from a social perspective. Investments in road infrastructure have to be weighed against the size and distribution of their costs and benefits.

The first methods of road transport were horses and Oxens or even humans carrying goods over dirt tracks that often follow game trails. The Persians later built a network of royal roads across their empire. With the advent of the Roman empire, there was the need for armies to be able to travel quickly from one region to another and the roads that existed were often muddy, which greatly delayed the movement of large masses of troops. The trans-African highway road network comprises transcontinental road projects in Africa being developed by the United Nations Economic Commission of Africa (UNECA), The African Development Bank (ADB) and the African Union in conjunction with the regional and international communities. They aim to promote trade and to alleviate poverty in Africa through highway infrastructural development and the management of road based trade corridors. The total length of the nine highways in the network is 65683km. This high waylinking Bamenda, Mamfe and Nigeria is also referred to as ``*TRANS-AFRICAN CORRIDORS''*.

The history of transport has seen a significant evolution over the century both at the level of mobility and on the available modes that in turn had an impact on the distance that

people and goods could travel. People travel to access opportunities, and the share of each activity has evolved in time, with significant differences across societies worldwide, as well as between urban areas. The history of transport is largely one of technological innovation. Advancement in technology have allowed people to travel farther, explore more territories and expand their influence over large areas. As new inventions and discoveries are applied to transport problems, travel times decreased while the ability to move more and larger loads decreased. Innovation continuous as transport researchers are working to find new ways to reduce cost and increase transport efficiency. International trade was the driving motivator behind advancements in global transportation in the pre modern world.

Transport on road can be roughly grouped in to the transportation of goods and transportation of people. In many countries, licenses requirements and safety regulations ensures a separation of two industries. Movement along roads may be by bikes or automobile, trucks or by animals such as horses. Cargo may be transported by trucking companies, while passengers could be transported via mass transit. Commonly defined features of modern roads include, defined lanes and Signage. Various classes of roads exist from two-lane local roads with at-grade intersections to controlled access high ways with all cross traffic grade-separated.

According to the ministry of transport/public works (2015), there are about 50000km of roads in Cameroon of which 5000km are paved. The road network both paved and unpaved is poorly maintained. The country's road density is estimated at 7km for each 1000km2. During the wet season, only the paved roads remain passable. Traffic on the unpaved road may be restricted by rain barriers. The road fund of Cameroon was created in 1996 in order to implement the Government policy on the road sector. Government efforts to improve the state of condition of Cameroon road are faced on a network or 2700km and the process is being undertaken. The construction of the Bamenda-Mamfe high ways linking the two regions of the southwest and northwest and even Cameroon and Nigeria through the Mamfe corridors has been a success on the Governments plan on road construction.

1.2 Justification of the study

Since the independence of Cameroon in 1960 the country has always possess a ministerial department in charge of road constructions. During the period of 5years development plans in the 1970s, road constructions especially those linking urban centers/ settings were a priority. By the mid 1980s, there was generalslowdown in development

because of the economic crises of the 1980s and early 90s. The road fund was created in 1996 to ensure the development of roads in the country.

Since independence, the Bamenda-Mamfe-Ekok road has received little attention from Cameroonian authorities despite the fact that it is the principal road gateway to Cameroon from Nigeria. The greatest commercial transactions between Cameroon and Nigeria takes place through this corridor taking in to cognizance that Nigeria is Cameroons first commercial exchange partner. The period covering independence to 2003 was a dark age for this stretch of road. Goods rot on the way, people could spend days on the way for a distance of less than 150km. By 2015, this road was finally constructed right to Enugu in Nigeria. This study is relevant in investigating the economic, social, environmental and cultural dynamics that the paving of the stretch road of road Bamenda-Mamfe have contributed in the transformation of the livelihood of the Mamfe Sub-division. It is also judicious for the present study to showcase the importance of road development to a community by comparing life during this period when the road was not paved and the period when the road has been paved. The town of Mamfe became relegated to the backyard, as it became a near island with the dilapidation of the Mamfe-Kumba, Mamfe-Bamenda and Mamfe-Ekok roads. With the tarring of these roads as from 2010, Mamfe oncemore resurfaced as an emerging economic centre, which thus motivated this study (Achankeng, 1995).

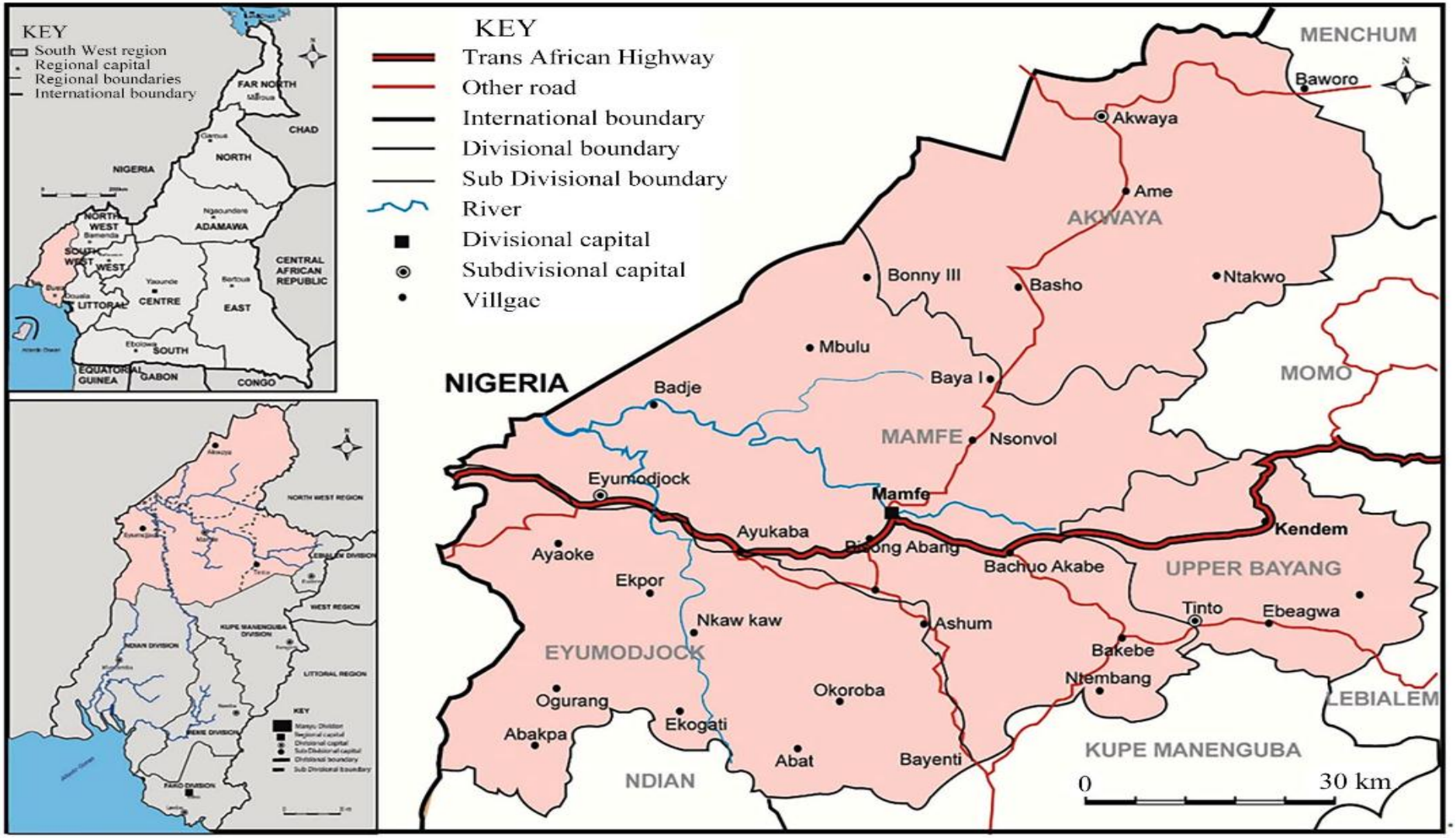
There is an old adage which say that ``where a road passes, development follows''. Though this sounds very appropriate for the development of human beings, it is unfortunately detrimental to natural resources especially in areas rich in biodiversity. This is the case with the Bamenda- Mamfe-Ekok road stretch, constructed with the objective of contributing to increase trade and to the strengthening of cooperation between CEMAC countries and those of the ECOWAS zones in general and between Cameroon and Nigeria in particular. This study intend to present the relevance of this road network to the socio-economic development of the Mamfe town and also points out problems associated to the development of the road corridor.

1.3 Delimitation of the study

This study is delimitated into three main parts which are temporal thematic and spatial delimitation.

1.3.1 Spatial delimitation

Mamfe is a town and capital of the Manyu a Division in the SouthWest Region of Cameroon. It is located 60km from neighboring Nigeria, on the Manyu river. It has a population of about 36,500. It is known as a center for traditional religion and traditional medicine. It used to be known for its bad infrastructure especially roads which however were recently tarred and presently, they are in good conditions within the city limits. This town is located between longitude 8’40 and 9’20 east of the prime meridian and Latitude 5’05 and 6’10 North of the Equator. It’s over shaped thrust it out Northwest ward from Ndian in the SouthWest region making it a wedge between West and Central Africa. It is bounded by theNorthWest Region to the South by Meme and Ndian Division. NorthWest the no Region to the north and to the South by Meme and Ndian Division.



Source: *Modified from NIC, 2021by Enow*

Figure 1: Location of the study area.

1.3.2 Temporal or periodic delimitation

The time frame for this work spans from 1960 till present. The rationale for the choice of this time frame is that before the year 1960, Cameroon had no poverty eradication plan and by then, the road network was still bad. Poverty reduction strategy papers (PRSP) are prepared by a country in broad consultation with stakeholders and development partners with the staff of the World Bank and IMF in 2003.In 2003, Mamfe town itself started experiencing tarred roads throughout the town which extended to other areas, the roads leading in and out of the town have been tarred. With this, the town has experienced a lot of positive and negative impacts. From 2008- 2013, the Bamenda-Mamfe road was tarred which stands as a Trans-African road which has eased movements unlike before where people could travel from Mamfe to Bamenda using two days because of bad roads. Today, there are a series of roads that have been tarred around Cameroon especially Bamenda-Mamfe which also extends to Ekok in neighboring Nigeria. So, the history of road development network in Cameroon especially trans-national roads began since 1960 and today, there is much development in the domain though much still has to be done.

1.3.3 Thematic delimitation

This study is based on the Bamenda-Mamfe road infrastructure and its influence on the socio-economic development of the Mamfe town which is aimed to show the contributions of the road development on Mamfe town. The development of mamfe town plays an important role in achieving sustainable development especially on the socio-economic aspects which has gone a long way to induce other related activities.The work also discusses the issues and challenges of transport on the Bamenda-Mamfe highway in general and also how the road has contributed to the enhancement of trans-national trade between Cameroon and Nigeria. There has been great developmental opportunities especially on social amenities since the construction of the road such as; beautiful buildings, schools, hospitals, play grounds and touristic sites which all make up key elements of this study. Also, villages along the road have benefited from schools, hospital etc. Some challenges faced by road users such as drivers are also key elements to be examined in this study and other related adaptation strategies.

1.4 Statement of the research problem

The relationship between transport infrastructure and socio-economic development have attracted a lot of research efforts and attention especially in developing countries. Road

transport is one of the most important and widely used mode of transport that contributes to the socio-economic development of many countries. Public transport (PT) in urban areas has gained greater attention in recent years for improving sustainability and the quality of urban life. The economic and environmental performance of cities can be enhanced by connecting resources to destinations effectively and facilitating mass mobility.During the past two decades, a huge population growth is recorded in developing countries. Increase in population has caused an increase in the demand for mobility. If the transport infrastructure is not capable of meeting the demands, this causes an increase in waiting times and congestion in public transport and streets (Samek and Torchio, 2015). Public transport can be more attractive by providing "Door to door mobility" and development of transportation services is an important factor of social quality. Sustainability of transportation, environmental conditions of an area, public health and economic condition of residents can be raised by shifting from private transport to the public transportation. The Bamenda-Mamfe-Ekok road apart from stimulating development of the area, it has also resulted to rapid urbanization of the Mamfe town with its numerous challenges in the town, illegal migration from neighboring Nigeria, illegal trade flows both on legal and illegal goods. Also, road users faces a series of socio-economic and administrative challenges in this trunk of road.

The construction of the Mamfe-Bamenda road trunk has been very vital in igniting urbanization which has contributed to the growth and development of the Mamfe town in recent years via the diversification of production in an increase in the socio-economic activities in the area. The unfortunate thing is that the road has resulted to illegal mobility of migrants from other areas such as Nigerians who at the moment have a very high influx into the area. The police on several occasions have identified illegal cross migrants from neighboring Nigeria. This has resulted to high crime wave in the town and other related social ills which needs to be checked into.

Secondly, international trade mainly between Nigeria and Cameroon has highly been encouraged by the construction of this trunk of road. Nigeria now have the ease to bring their trade articles to Cameroon particularly in Mamfe and then distributed to other places in the country. This has gone a long way to enhance trade and development of the area. Unfortunately, this has resulted to illegal trade on both illegal and legal goods especially hard drugs coming from the neighboring Nigeria. On several occasions, such goods have been identified in Mamfe town by the police and custom officials originating from Nigeria. Illicit

funge fuel and pharmaceutical goods are very common illegal trade elements in Mamfe town which are all elements to deal with and seek lasting solutions.

Thirdly, the users of this road confronts a myriad of setbacks such banditry, accidents resulting from the degrading state of the road with poor maintenance of the road and over speeding, alleged bribery and corruption at toll gates on this road and related administrative issues are amongst the drawbacks faced by those plying this trunk of road. All these challenges requires succinct measures and strategies to deal with the road constraints.

It is therefore imperative for the above stated problems to be diagnosed and addressed so that the Bamenda-Mamfe road can adequately contribute to the socio-economic development of the Mamfe town which is very vital for the wellbeing of the local population.It is against this gloomy background that this research has been designed to provide answers to the following research questions.

1.5 Research Questions

A. General research question

- What are the socio-economic implications of the Mamfe-Bamenda road infrastructure to Mamfe town?

B. Specific research questions

1. To what extent has the Mamfe-Bamenda highway influenced urbanisation of Mamfe town
2. How far has the Mamfe-Bamenda road highway promoted trans-national trade between Cameroon and neighboring Nigeria?
3. What are the socio-economic, administrative and communication challenges faced by Mamfe-Bamenda road users
4. How can these challenges be managed to mitigate road constraints?

1.6 Research Objectives

A. Main research objectives

- Evaluate the socio-economic implications of the Mamfe-Bamenda road infrastructure on Mamfe town.

B. Specific objectives

1. To examine the extent to which the Mamfe-Bamenda road high way influenced urbansation of Mamfe town.
2. To investigate how far the Mamfe-Bamenda road highway has influenced trans-national trade between Cameroon and neighboring Nigeria?
3. To assess the socio-economic, administrative and communication setbacks faced by the Mamfe-Bamenda high way road users.
4. To propose amelioration strategies of the challenges faced along the Mamfe-Bamenda high way.

1.7 Research hypotheses

A. General research hypothesis

The Construction of the Bamenda-Mamfe highway has greatly contributed to the socio-economic development of the Mamfe town.

B. Specific research hypotheses

1. The Mamfe-Bamenda high way road has influenced urbansation of Mamfe town and related ills.
2. The construction of Mamfe-Bamenda road has promoted trans-national trade between Cameroon and neighboring Nigeria whose impacts are felt in the Mamfe town.
3. Socio-economic, administrative and communication challenges are being faced the Mamfe-Bamenda high way road.
4. State actions and relevant stakeholders can mitigate road constraints along the Mamfe-Bamenda highway.

1.8 Literature Review

The highest illiteracy in the 21st century is to proceed with a research work without reading to uncover knowledge that has been written and stored by various authors in the related domain of research. It is in this light that, a wide range of texts, journals, conference papers, published and unpublished documents, reports, dissertations and PhD theses were consulted to build a rich and befitting literature to proceed with this study. This permitted the researcher to have some additional ideas on highway and how it influences the socio-economic development of a place and equally to avoid the duplication of work that has

already been carried out elsewhere. These documented works have divergent points of views concerning the topic which focuses on the influence of highway of Bamenda-Mamfe on socio-economic development of the Mamfe town.

The broad influence of roads in society would suggest that they be treated as a public rather than a private good. However, a brief review of the historical treatment of roads in North America indicates that this has not always been the case. This work endeavors to define the concept of a public good and provide a historical context for the treatment of roads and its influence to the Mamfe town population. Recent literature offers evidence that the public/private road debate at the community, regional or national level in Cameroon continues. This report explores these issues and concludes with an assessment of whether there is strong, moderate or weak support for consideration of roads as a public good. The literature review of this work handled thematically in accordance with the main issues raised on the statement of the research problem

The construction of the highway and urbanization

Dena, (2017) researching on the impact of urban proximity, transport accessibility and policy on urban growth: A longitudinal analysis over five decades, analyzed that accessibility to suburbs especially via road transport ways and particularly trans-national high way is the main driver of socio-economic development to any given community given the activities induced by such an activity. The scholar also assumed that urbanisation is a process partly driven by transport accessibility, partly by the attraction of existing urban areas, and partly by policies aimed at influencing autonomous processes. Thus, this study investigates three assumptions. First, the proximity to rail and road infrastructure and their provided access to centres of activities encourage by urbanisation. The influence of the road network however is expected to be stronger than the rail network, as the road network is larger, more fine-grained and has a higher share in the number of travelled trips. Second, existing urban area encourages further urbanisation, and large conurbations exert a stronger attraction than smaller ones. Third, urbanisation is not only an autonomous process driven by transport accessibility and attraction of existing urban area but also a process which is simultaneously influenced by spatial policies. This study focuses more on the socio-economic development induced by a trans-national high way and the spatial growth of the town of Mamfe as also suggested by the author.

According to Gina Porter (2012) assessing the impact on the rural poor of constructing roads in Ghana and Nigeria, this author focused on women since women experience more poverty than men, a situation that prevails in Manyu Division. They are the mainly farmers producing foodstuffs that are sold in the markets. Mamfe town is the headquarters of Manyu Division that is made up of four Sub-divisions. The present study evaluates the importance of the construction of the Bamenda Mamfe highways to the socio-economic development Mamfe town and its population. This study further goes ahead to evaluate how this trans-national road has impacted trade and development in this area and related infrastructure.

Pointing out the relevance of sustainable mobility in both rural and urban areas (Akinyemi, 1997) evaluated the levels of environmental impacts and costs of development and operation of transportation system. This work however diverts from this perception to evaluate how this trans-national high way has encouraged urbanization especially in the town of Mamfe and neighboring towns. Three main references can be made from these ideas. The first inference is that sustainable mobility is significantly transportation supply dependent. The better and more sustainable the supply characteristics of a transportation system, higher will be the level of mobility of peoples. The second inference is that current levels of people mobility in many developing cities can be said to be low and unsustainable largely because of inadequate transportation supply characteristics. The inadequacy of transportation supply in many countries manifests mainly through inadequate public transportation services, low productivity and level of ride ability of facilities and high level of transportation related environmental impacts. For example, in many cities, it is difficult to move around by any mode of transportation without physically and/or mentally exhausted in the process.

The magnitude, determinants, rate and the spatial distribution of urban growth or urbanisation are major concerns for policy makers. Accessibility, neighbourhood interactions and spatial policies are argued to be the most influential factors on contemporary land use change (Verburg et al., 2004). Transport infrastructure is believed to stimulate and guide urban growth via the improvement of accessibility (Anas et al., 1998). This assumption is demonstrated in a long tradition of policies aiming at channelling urban growth by investing in transport infrastructure. It is also known that urbanisation is more likely to happen near existing urban areas, examples being the concentric development of cities or the appearance of suburbs nearby major cities. Furthermore, where urbanisation occurs or not, is related to spatial planning and policies which designate areas for, or preserve locations from

development. This study goes further to evaluate examine the role of trans-national high ways on urban growth in the Mamfe town and also goes ahead to assess the socio-economic constraints faced encountered in the Bamenda Mamfe highway.

Change in land use patterns such as urbanisation is a slow process with a low reversibility (Wegener and Furst, 1999). Thus, it can only be studied over the long term. However, only few empirical studies investigate this process over multiple decades. Most studies investigating the long-term impact of transport infrastructures model population change as a proxy for growth and urbanisation (e.g. Baum-Snow, 2007; Duranton and Turner, 2012; Koopmans et al., 2012; Levinson, 2008). Rail networks have influenced the distribution of population and encouraged a rise in urban population especially after their emergence, although with variations across regions and time periods (Atack et al., 2010; Mojica and Marti-Henneberg, 2011). They have also facilitated suburban population growth (Garcia-Lopez, 2012; Levinson, 2008). Similarly, road networks, specifically motorways, have attracted population to their vicinity (Baum-Snow, 2007; Duranton and Turner, 2012; Garcia-Lopez, 2012). This study however does not examine the whole of transport systems but only the road transport particularly the high way or trans-national road.

Before independence and the reunification of West Cameroon with East Cameroon by then, the town of Mamfe in Manyu Division an important political and economic hub of former West Cameroon geo-politics. After the independence and reunification, the buoyant relationship that this town enjoyed with Nigeria dwindled considerably. Its socio-economic relationship with the then East Cameroon did not experience the highly expected boom either. Even the indigenes of Manyu shied away from its development since development had moved east from Lagos to Douala Shortly after independence and reunification, it became noticeably clear that the town had switched from relative to absolute decline (UNESC, 2009).

This was so because the economic capital of the territory at the time had moved east from Lagos to Douala. Its derelict social infrastructure and road network that ensued from its absolute decline contributed in plunging the town and the entire division into inaccessibility and enclavement. The tarring of the Cameroon section of the Lagos-Mombasa Trans African High Way (TAHW) came as a long awaited relief to the Manyu people. It opened up, not only this region and the backside of this part of the country, but also revamped and restored the lost glory Mamfe town once enjoyed (Enoh, 1987).

This laudable initiative to construct road highways that could dis-enclave the entire continent witnessed some feet dragging by most leaders who wanted to maintain theirmicrostates. This significantly retarded the speedy realization of the Trans-African HighWays (TAHW) project. Projects to construct road highways in Africa greatly succeeded in countries of the Maghrebian bloc, the Southern and Western blocs, although this mostly limited to the coastal regions. The vast Sahara Desert and much of the dense equatorial forest of central Africa are lagging behind the attainment of this continental project geared towards the infrastructural development of Africa. Cameroon that hosts two of these TAHWs (Lagos-Mombasa and Tripoli-Windhoek (Capetown) also witnessed most of its sections not tarred until recently. The Bamenda-Ekok section via Mamfe (179 km) earmarked in the 1990s as part of the Lagos-Mombasa TAHW remained untarred until 2010. This greatly impeded the economic spring up for the town of Mamfe, its dependent settlements and across the border with Nigeria (USAID, 2016 and EU, 2011).

The Bamenda-Mamfe road construction through Mamfe in Manyu Division". Its principal objective was to evaluate the impact of this road in revamping the socio-economic development of Mamfe town in particular and Manyu Division in general. The town of Mamfe had always been an economic hub prior to independence and reunification between east and west Cameroon. This privilege position was lost shortly after independence because development had moved east from Lagos to Douala. The government has made some efforts in revamping the lost glory of this important colonial town, but all these achievements could barely be noticed just for one year (2015-2016) until the Anglophone crisis cropped up to mortgage every aspect of benefit registered due to the tarring of the Cameroon section of the Lagos-Mombasa TAHW

In fact, our aim is to analyze the relationship between urbanization or urban growth and development by exploring the role of transport costs in the process of urbanization. The urbanization process, or more generally, the creation of urban agglomeration, and its relation to economic growth have been deeply discussed by the empirical and theoretical regional and urban economics literature (Lewis, 1954; Hoselitz, 1953; Fujita et al. 1999; Black & Henderson, 1999, and others). The urban economists and development economic literature recognize the positive relation between urbanization and income (Kuznets, 1966; Jacobs, 1969; Bairoch, 1988; & Glaeser, 2005).Empirically, Acemoglu et al. (2002) show that a country with an urbanization rate of 10 percent points above the average presents a per capita income 43% higher. Glaeser & Maré (2001) found an average urban wage premium that

ranges from 24.9% to 10.9 % for those who lives in densely populated areas, controlling by individual characteristics.

Trans-national highway and international trade

The history of regional economic is based on the existence of transport costs as an instrument to form economic agglomeration and improve trade, in particular exports and imports. The economic decisions are built and limited by the transport costs of goods and commodities from one place to another (Christaller, 1966; Lösch, 1954; Isard, 1960; Fujita et al., 1999; Glaeser & Kohlase, 2003). Many empirical works have pointed to a strong relationship between access to sea, percent of population living in coastal areas, urbanization and economic growth (Gallup,& Mellinger,1998). The development of areas far from the sea depends on the investments in infrastructure, despite the existence of natural resources. These investments are related to specific production and trade patterns imposed by high transport costs. As documented recently, major roads affect the distribution of the population (Baum-Snow 2007a, 2007b; Duranton & Turner 2007) and labor markets (Michaels 2008). Based on these evidences we propose to investigate the impacts of transport cost reduction on income or wages premium, human capital formation and labor markets. This study goes on to evaluate how the trans-national road has influenced international trade and other emanating activities erupting because of the construction of the high way.

Chein et al. (2009) have already studied some effects of transport infrastructure development in Brazil. The authors investigate the relationship between urbanization and individual incomes by exploring the role of transport costs in the Brazilian process of urbanization. They find that, although this relationship exists, it is not, necessarily, direct. Productive structure and local labor market are important channels which relate urbanization to individual income in emerging towns around the roads. Their empirical results show that there is no statistically significant relationship between the accumulation of human capital in those towns and the individual incomes, differently from the findings for large and medium-sized cities.

The idea behind our paper is very similar to the experiment designed in Chein et al. (2009), but we will make some advances in the identification of the relation between urbanization and economic growth or development. In fact the results present in Chein et al. (2009) refer to a simple correlation between urbanization and income; we want to identify a cause relationship between urbanization and some indicators of development using a

reduction in transportation cost as an instrument to urbanization. Following Michaels (2008) and Baum-Snow (2007), instead of using a measure of transportation costs we will associate the development of highway networks with a transportation cost reduction. But, contrary to Baum-Snow (2007) and differently from Michaels (2008) experiment we are interested in identifying the impact of urbanization caused by the roads investments on labor markets and income, that is, we use the highway improvement to identify urban growth and not a suburbanization (Baum-Snow, 2007) or necessarily and increase in international trade (Michaels, 2008). This ongoing study on the one hand pays great attention to cross-border trade ignited by the trans-national high way road which has contributed to the development and growth of Mamfe town.

Urban studies have designated that transport infrastructure is crucial for the development of cities, regions, and countries. The government spends a considerable amount on public capital, helps increase the productivity of private factors, reduces transportation costs for firms, and enhances the accessibility to territories. Several empirical studies have used production or cost functions to examine the effect of infrastructure on economic growth; most studies focus on the aggregate amounts of public capital, whereas some distinguish between roads and other types of infrastructure. The geographical unit of analysis varies from the national level to the regional or local one (Fageda & Gonzalez-Arregall, 2014). This study has its specificities in that it puts forth relevant knowledge about how transport infrastructure can contribute to economic activities such as trade which is the case in Mamfe town.

Many studies state that regional growth rate depends on observable and unobservable regional characteristics, such as basic factors of production (labor and capital), geographic condition, climate, and spillovers nearby regions. The transport infrastructure has found that effects on the growth at the regional and national levels vary in different studies. Spillovers affect regional growth rate better than do other unobservable regional characteristics and can be considered as equally important as the observable regional effects (Conley & Ligon, 2002). It is in a similar way that this study examines how the trans-national high way has influenced a host of activities which has greatly contributed to the socio-economic development of the Mamfe town resulting from development of road transport infrastructure.

Road insecurity

The restrictive nature of the waterways, the pitiful condition of the rail system, and the inability of an average Sub-Saharan African to afford the high cost of air travel makes road

transportation preferable in Nigeria" (Vitus, 2014). Roads also serve as linkages between rural communities, which are centers of extraction of raw materials and urban centers, which are hubs of production. Construction of interstate roads has led to increased economic activities among people leading to integration through business and settlements. Therefore, road construction has become not just an attempt to enhance transportation of goods but an exercise in nation building. Against this background, governments at various levels have increased the rate of road construction and expansion both in rural and urban areas to reduce traffic on existing ones, enhance accessibility to the hinterlands and promote nation building.

Notwithstanding, the sector is besought with a number of challenges arising from road accidents, highway robbery, kidnapping, corruption and extortion by uniform officers, dumping of refuse; port holes, dilapidation, illiteracy among drivers, no traffic regulators, to mention just these few. These challenges constitute sources of insecurity for commuters. Similarly, the aftermath of the civil war particularly in the south east region of Nigeria with the attendant economic hardship accelerated the rate of insecurity in the road transport sector as the roads became centers of illegal activities such as smuggling of contraband, robbery, kidnapping, prostitution and child trafficking. To mitigate against these challenges, government began to deploy police officers and later military personnel's to mount road blocks and checkpoints on roads especially on highways to check the illicit activities on the roads and track some suspected criminals (Oko,2018).

Okonkwo et al (2018) conducted a study to investigate corrupt enforcement practices by road safety officers involving Imo, Anambra, Kaduna, Kano and Delta states. The study revealed that in all checkpoints at least two in five vehicles that were stopped for over loading violation were not fined or booked due to acceptance of bribe by enforcement officers. The passengers merely watch helplessly as security and safety officers collect bribes and allow drivers make risky maneuvers without been penalised or cautioned. Although the argument that poor institutional remuneration of security and safety officers is valid to the point that it discourages officers from enforcing standards since there is little or no motivation to do so, what is however contentious in this view is that the practice has been institutionalised to the point that even the recent increment in the salary of officers has not deterred them from collecting the bribe and sometimes collection is forcefully done under threat of gunshot, arrest and detention, delay of passengers or deflation of vehicle. Also transporters have gotten used to the system that they make the bribe available even before the checkpoints.

McKinnon (2007) views economic development as "a process of fundamental and sustainable economic changes in a society". Human security therefore is a prerequisite for economic development and nation building while the two are vital paradigms indices for measuring national transformation. According to Oyesiko, (2015) road transportation accounts for over 70 per cent of the movement of people and goods globally. This mode of transportation opens up new areas of economic activities. It also enhances agricultural production, revitalises trading activities and impacts positively on urbanisation process. Although, there are other means of transportation such as air, rail and water, these means of transportation would have been greatly incapacitated but for the complementary role played by road transport in the economy. Road transportation is a key element for the economic growth and development of the country. It should be understood that efficient road network influences both economic growth and cohesion.

1.9 Conceptual and theoretical frame work of the study

A number of concepts and theories are examined and reviewed in this study in order to show their significant in this work in the domain of transport infrastructure and socio-economic development in Mamfe town in which this study dwells. In a whole, two concepts are used in the study and two main theories which are the theory of spatial diffusion pof innovation and some development theories. As concerns the concepts, the concepts of transport and that of socio-economic development are well defined and conceptualised in this study to show their relevance and proper understanding of the study.

1.9.1 Conceptual frame work of the study

- **Concept of mobility**

Transport or transportation is the movement of humans, animals andgoods from one location to another. In other words, the action of transport is defined as a particular movement of an organism or thing from a point A (a place) to a point B. Modes of transportinclude air, land (rail androad), water, cable,pipelineandspace. The field can be divided into infrastructure, vehicles and operations. Transport enables trade between people, which is essential for their socio-economic development.

Passenger transport may be public, where operators provide scheduled services, or private. Freight transport has become focused on containerization, although bulk transport is used for large volumes of durable items. Transport plays an important part in

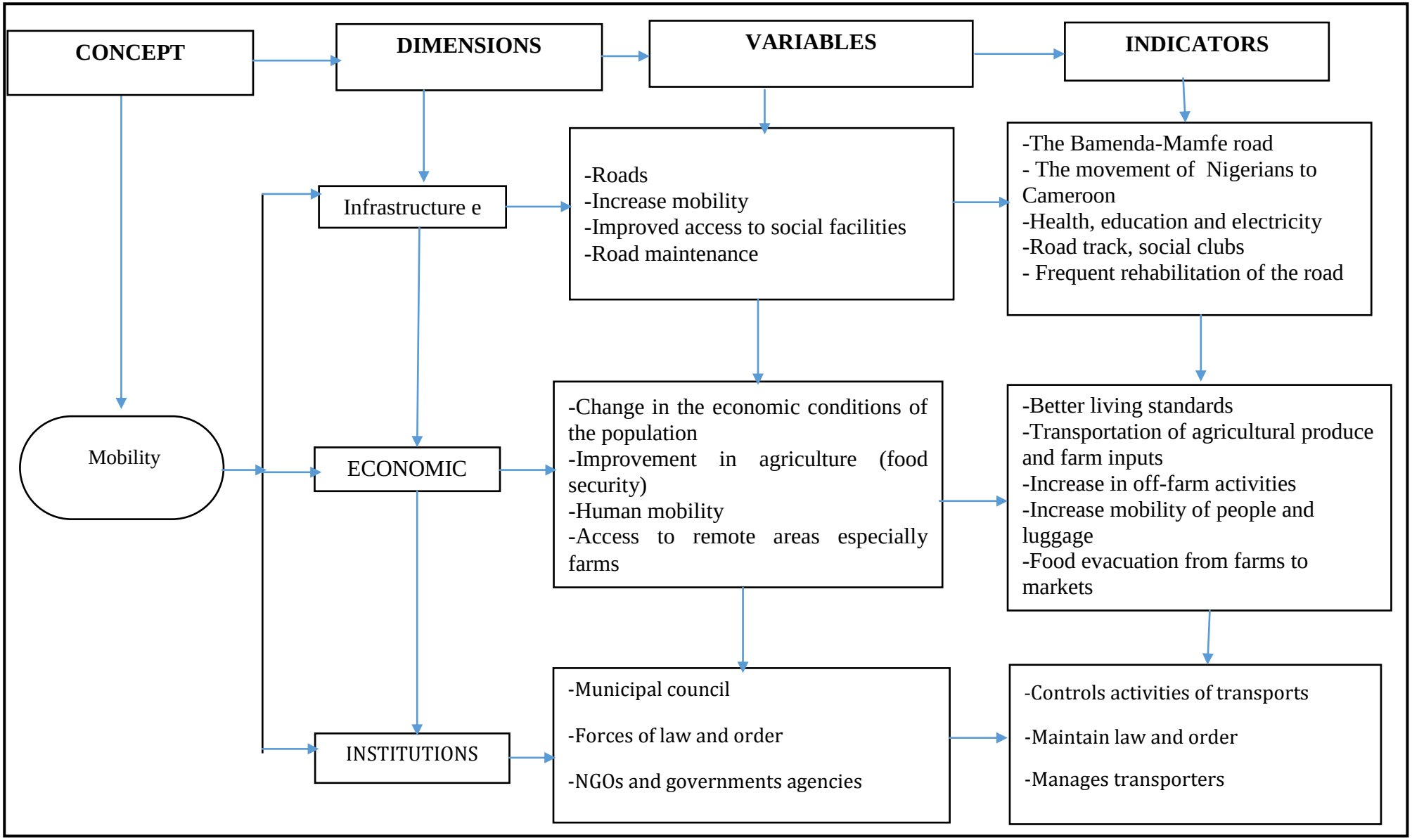
economic growth and globalization, but most types cause air pollution and use large amounts of land. While it is heavily subsidized by governments, good planning of transport is essential to make traffic flow and restrain urban sprawl.

Transport infrastructure entails roads, canals, railways among others. Apart from these infrastructure, they are also facilities that act as support mechanisms to the transport sector which can either be ships in their categories, animals such as donkeys and houses, trains (wagons) and vehicles of different sorts (Dena, 2017). This study however, concentrates on road transport and its related infrastructure which has ignited socio-economic development in the study area.

The United Nation's first formally recognized the role of transport in sustainable development in the 1992 United Nation's Earth summit. In the 2012 United Nation's World Conference, global leaders unanimously agreed that transport and mobility are central to achieving the sustainable development targets (Banchuk, 2011). In recent years, data has been collected to show that the transport sector contributes to a quarter of the global greenhouse gas emissions and thus, sustainable transport has been mainstreamed across several of the 2030 Sustainable Development Goals (SDGs), especially those related to food, security, health, energy, economic growth, infrastructure, and cities and human settlements. Meeting sustainable transport targets is said to be particularly important to achieving the Paris Agreement.

A road is an identifiable route, way or path between two or more places. Roads are typically smoothed, paved, or otherwise prepared to allow easy travel; though they need not be, and historically many roads were simply recognizable routes without any formal construction or maintenance. In urban areas, roads may pass through a city or village and be named as streets, serving a dual function as urban space easement and route. The most common road vehicle is the automobile; a wheeled passenger vehicle that carries its own motor. Other users of roads include buses, trucks, motorcycles, bicycles and pedestrians. As of 2010, there were 1.015 billion automobiles worldwide. Road transport offers a complete freedom to road users to transfer the vehicle from one lane to the other and from one road to another according to the need and convenience(David, 2015).This flexibility of changes in location, direction, speed, and timings of travel is not available to other modes of transport(Karema, 2015).

It is possible to provide door to door service only by road transport. Automobiles provide high flexibility with low capacity, but require high energy and area use, and are the main source of harmful noise and air pollution in cities; buses allow for more efficient travel at the cost of reduced flexibility. Road transport by truck is often the initial and final stage of freight transport. Among all the definitions put forth by the various authors, this study sees transport and transport infrastructure as supporting components of road transport such as road infrastructure, maintenance and its role in socio-economic development. Figure 2 presents the conceptualization of transport in the light of this study which consist of dimensions, variables and indicators.



Source: Conceive by the author, inspired by master's II classes and field work, 2019

Figure 2: Conceptualization of Socio-Economic Development

The concept of socio-economic development

The term socio economic development is complex just like the term development. To better apprehend the understanding of this term, the term "Development" is first reviewed while integrating social and economic aspects. Development is a complex term and does not have unequivocal criteria in defining it. As a concept, there are still severe difficulties in attempting to understand what development actually mean. Contemporarily, the definition of development varies depending on the problem and the purpose for which it is intended to be used.

The Cambridge Advanced Learners sees development as growth, change and more advancement. From the above perspectives, development can be in the political, cultural, economic, social and many other dimensions

In another light, development can be understood as an improvement, growth or a positive change in the society. It involves social, technological and economic transformation focusing on economic prosperity. If a community or people have the capacity to satisfy the basic needs of a larger portion of its people or population, we talk of a developed society.

According to Irish Aid (2006), development refers to the actions and activities in which individuals and communities participate. It occurs in the social, economic, political and geographical areas where these individuals and communities exist. The local population of any given geographical area influences the outcome of development of that area. The local nature defines who participate and does what and at which level. In order to clearly define the concept of development, we spell out the level where this development is taking place which in the context of our study is in the social and economic domains induced by the transport activities.

The term development can equally be defined from two view points; from the view point of the local community and their needs and from the view point of changes taking place within the local, Alicia (2002). In the context of our study, we will take the two aspects into consideration.

The study looks at development as improvements implanted in Mamfe Sub-division by transport in creating jobs, enhancing agriculture, easing mobility and reducing poverty and a general livelihood improvement.

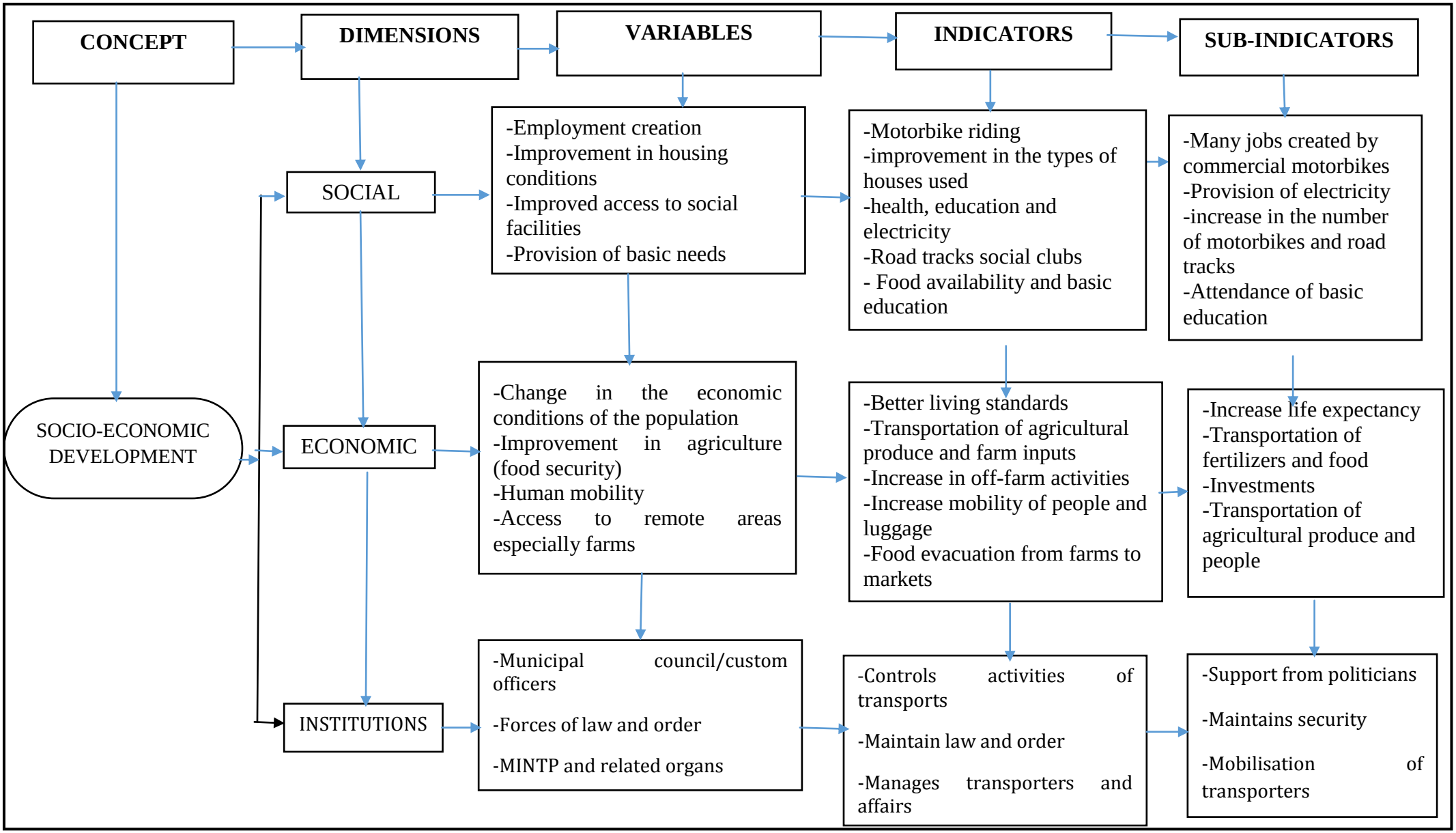
According to the Basic Needs approach, economic development is defined in terms of progress towards reducing the incidences of poverty, unemployment and income inequalities.

According to Human Development Report, (1996 p.1), economic development is the measurement of life expectancy, adult literacy, access to all levels of education as well as people's average incomes which creates freedom of choice.

This study examines Economic Development as an improvement in the domain of job creation, agricultural improvement and mobility provided by transport activities that can result from proper organisation of transport and enabling a conducive environment to effectively carry out their activities.

According to the Copenhagen Social Summit, (1995), social development is defined in three terms; poverty reduction, employment generation, and social harmony.

The study looks at social development as an improvement in the welfare and access to social facilities not leaving out poverty reduction in the community. In another dimension, social development here will also consider measures geared towards mobility, and education as tools for economic growth. The socio-economic development spearheaded by transport activities in Mamfe Sub-division is conceptualised. Three major dimensions are given a close look notably the social, economic and institutional with major variables and indications of change.



Source: Conceive by the author, inspired by master's II classes and field work, 2021

Figure 3: Conceptualization of Socio-Economic Development

Accessibility

Accessibility in the sense considered here refers to the design of products, devices, services, or environments so as to be usable by people with disabilities. The concept of accessible design and practice of accessible development ensures both "direct access" (i.e. unassisted) and "indirect access" meaning compatibility with a person's assistive technology, (for example, computer screen readers. Accessibility can be viewed as the "ability to access" and benefit from some system or entity. The concept focuses on enabling access for people with disabilities, or special needs, or enabling access through the use of assistive technology; however, research and development in accessibility brings benefits to everyone.

Accessibility is not to be confused with usage which is the extent to which a product (such as a device, service, or environment) can be used by specified users to achieve specified goals with effectiveness, efficiency, convenience satisfaction in a specified context of use. Accessibility is strongly related to universal design which is the process of creating products that are usable by people with the widest possible range of abilities, operating within the widest possible range of situations.This is about making things accessible to all people (whether they have a disability or not).

1.9.2 Theoretical framework of the study

This study is integrated in the problematic in relation to the transport infrastructure and socio-economic development. This study in inscribed in the framework of the theory of spatial diffusion of innovations and some development theories such as the theory of necessity for development and that of collective action. This was in a bit to give the work a scientific base and to use the theories as a point of reference.

The theory of spatial diffusion of innovations

The general theoretical position of the theory of spatial diffusion of innovations consist of proposing a partial explanation as well as prediction possibilities about the state and probable evolution of geographic entities on basis of knowledge of their situation with respect to other geographic objects. It postulates ideas and technologies spreading across cultures. http://www.hypergeo.eu/spip.php?article187. The theory thus bases on aspects of typical spatial diffusion which suggests six elements: an environmental space; a diffusion

time, in two or more intervals; an innovation or "message" to be diffused; a set of message holders and message receivers in the initial time interval; an interaction path between message holders and message receivers. These six elements are indirectly suggestive of other elements that should be considered in examining spatial diffusion in any culture and economy which in turn depend in the culture and type of innovation. Innovations are developed in the course of interactive process depending on the actions of actors located in the centre. This action may be creation, anticipation and attempt to take a profit from it or imitation of an innovation that has registered success elsewhere, both attitudes representing adaptation strategies.

These processes of ideas and technologies spreading through cultures are however affected by barriers like culture and physical environment (Paul and Robert, 1973). This theory will be applied in this work in order to examine how transport infrastructure has contributed to socio-economic development of the Mamfe town and how the dwellers have adapted to various changes or innovations brought by this high way road. This has led to the spread of trade and commerce and other related developments in the study area. The examined innovations are the changes in transport modes, impacts of transport in the lifestyle of the people and rapid diffusion of the exchanges in the study and its contribution to socio-economic development. New innovation that has recently developed and diffused in most countries of the sub-Sahara Africa.

Development theories

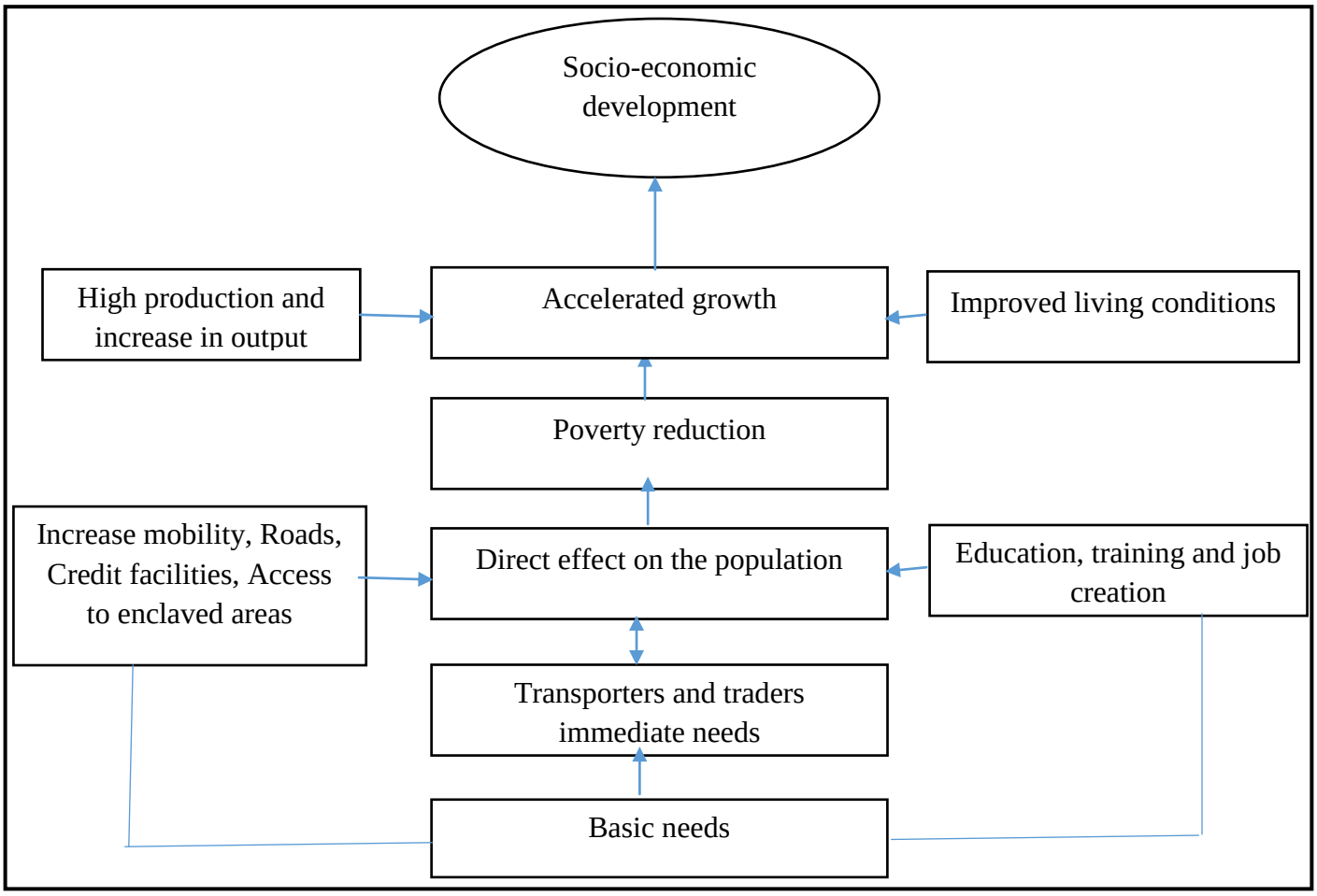
As put forth by Robert Chambers in his urban bias theory, development stakeholders often neglect rural areas in development. It is in this light that the Pan African Institute for Development was established to train aspiring development expects who will tactfully respond to the needs of rural areas.

Development theorists such as W.W. Rostow, saw development as a continuous process. To him, developments most begin from somewhere before it reaches a certain level which he called mass consumption and production. Villages develop to towns and gradually to cities and megalopolis. We will thus see development in Mamfe town as a process of transformation effectuated by the high way infrastructure. According to the social theories on development, emphasis is being laid on job creation through human capital. In this theory, it

is seen that employment creation, transport and accessibility, education and access to food as major tools for economic growth and development.

The theory of necessity for development

This theory is suggested by economists and integrated for use in improving on the welfare of societies. The theory lays emphasis on long-term growth for a country to possess the capacity to continuously supply diverse products to the population. This increase capacity is based on advanced technology and institutional ideologies necessary for adjustments (figure 4)



Source: Conceived by the author, inspired by master's 11 classes and field work, 2021
Figure 3: Basic Needs theory for development

This theory shows that for a community to develop, basic needs of the people must be attained. In the context of this study, for transport infrastructure to effectively contribute to socio-economic development, the basic needs of the activity must be met. This include good roads to access enclave areas, credit facilities for savings and taking loans and mobility of the

population. A proposed strategy here within the context of this study is education, training and job creation. Transporters have to be properly trained on the Highway Code, roles and modalities of using the high way. This in no doubt will lead to socio-economic development which is the aspiration of every society.

The Rimmer Model (1977)

Presented a four phase model for the analysis of interrelated development of transport networks between developed countries and third world nations. The model traces the impact of colonialism on the development of transport systems in these nations. The first phase begins with no links between the two, with more badly made roads, a limited amount of tracks for trains, etc with a socio-economic order with restricted means and ends. The early colonial phase is the second phase, and consists of exploration of the regions by colonial powers through sea routes, beginning with seafaring trade and limited settlements on these nations by colonial powers. The third phase occurs post colonization, and here the colonial powers engage in laying their basic infrastructure such as roads and railways along with radical changes in the political and economic organization of Third World nations. The last phase in this model is the neo-colonial stage, involving diversification and modernization of the transport systems. These transport networks were aimed at resource extraction from colonized nations by the colonial powers.

This model is related to my work on transport as it also talks on the development of third world countries which my work is centered on the importance of the construction of the Bamenda-Mamfe road infrastructure and its influence to the Mamfe town which is in the developing world. But then, his work examines the interrelated development on transport between developedcountries and the third world nations. Meanwhile my work is centered on the development of a third world country.

The Van Model (1970)

Presented a model for the development of transport links in North America whose development influenced the growth of an urban hierarchy. The model charts how favorable trading results due to a better transport infrastructure for North Americans due to better manufacturing facilities facilitated urban lifestyles. There is no doubt the development of transport network embraces development which could be social, economic etc. the vancemodel based her interest on how the construction of transport network has led to the

growth ofan urban hierarchy and how favorable trading results are recorded in North America due to transport network. This model is related to my work as a new dawn came to Mamfe town due to the construction of the Trans African high ways linking Bamanda-Mamfe-Ekok.

1.10 Methodology of the Study

Research methodology entails processes and procedures used to produce a piece of work that is scientifically acceptable. It includes instruments, methods, techniques procedures and sources that are used to get information capable of bringing out the situational analyses of a phenomenon, make recommendations and suggestions at the end of the work. A systematic approach involving both primary and secondary data collection was used in this study. Secondary data collection involved the exploitation of internet documents, articles, reports, books and other related documents. Primary data was obtained through questionnaire administration, observations, and interviews, informal and formal discussions. This section of the work presents the research procedures, research instruments and difficulties faced in bringing out findings of the study as design by the researcher.

The study matrix

The choice of an area in the South West Region is because this region has a solid background in community development activities. The choice of Mamfe in the South West Region is explained by its cosmopolitan nature especially as the town regroups most ethnic groups of the South West Region. The aim of this study is to show how the construction of the Bamenda-Mamfe road has brought development to the Mamfe town, Mamfe being a colonial town, a gateway and a transit town linking Cameroon and Nigeria. Therefore, Mamfe town has evolved positively and negatively since the construction of this road which stands as a Trans-African road. To proceed with the study, a pre-field study was conducted

Pre-survey of the study

A preliminary survey wascarried out in the study area in May-July 2021. The aim of this survey is to explain to the council officials, administrative officials, traditional authorities and civil society organization the base line of the present piece of work. A pre-test questionnaire will be established and 75 questionnaires distributed to the people in the study area. The aim of this questionnaire is to make sure the objectives and hypotheses set for the study will be relevant. The pre-survey also aims at evaluating the financial, material and human resources necessary to carry out the study.

Selection and training of field survey assistants

The study entailed the collection of varied data and information on the sub divisional council and the city council. The study is specific in that it necessitated attending many conferences, meetings, seminars and community works. Many of the aforementioned activities could be taking place at the same period. There was therefore the need for field survey assistants. Taking into consideration the nature of the study as revealed by the preliminary study, field survey assistants were selected and prepared. In total there were (6) field survey assistants. Three of them were graduates from the teachers training college Mamfe and three from the transport department in Mamfe. The field assistants were chosen based on their background knowledge in scientific research and data collection. The six (6) field survey assistants were divided into 3 groups and each group responsible for information gathering in the sub division. The quantity and quality of information to be collected was determined by the author.

The six (6) field survey assistants were all natives of Mamfe. As in many areas of Cameroon, certain information can easily be gotten by natives of the locality. The need therefore to choose survey assistants, origin of this area was unavoidable. The first exploratory trip through the quarters and villages of the study area permitted the mastery of the terrain, define the topic in concrete terms and establish useful contacts especially with municipal councilors, traditional authorities and civil society organizations. The author often assigned the field survey assistants in specific areas and periods to collect data.

1.11 Methods of data and information collection

Qualitative and quantitative methods of data collection were used in the realization of this piece of work. The different methods used did not only have particular strengths and permitted the collection of different forms of empirical material but also contributed to the realization of particular objectives for the study. Research in Geography as a scientific discipline and in human Geography in particular has evolved with time. Before now some researchers based their sources of data collection on observation and interviews. Today, there is a wide variety of possibilities such as the internet, extracting out existing literature and even carrying out interviews and surveys by emails. Visual imagery like television programs furnishes important information for geographic research. The research methods chosen for this geographic research are practical. The questions who, what, when, where for how long are answered by the present methodology.

This part of the work makes a detailed description on how information for this study was obtained. Many researchers hold that a research work should bring out the different steps used in carrying out a scientific piece of work. In the case of the present work, the research started with the exploration of secondary documents treating the same issue at stake. Simultaneously, observations were carried out in the study area in order to dress out the scientific context of the study. The bulk of the work consisted in obtaining views from a sampled population.

Secondary sources of data collection

As already stated, a pre-survey was first of all carried out and this permitted the study to ascertain the statement of the problem. Intensive documentary research was carried out thereafter. This consisted in reading and analyzing literature concerning the issue at stake. Documentary research procedure helped the study to demonstrate that the process of decentralization is of scientific interest. Inspiration and style of displaying ideas of other authors concerning the same issue in different areas also helped the present study in bringing out the scientific context of the study. Theories, concepts and models advanced by some authors fostered the understanding of the contribution of the construction of the road to mamfe town. The literature of other researchers helped the study to come up with scientific conclusions in relation to facts gathered from the views of other authors.

Reviewing existing literature permitted an effective spotting out of areas which have not been researched on or where there is need for a case study in-depth research. In this study, there was need for the review of case studies in other areas to grasp experience which may replicate and then permit a comparism with our findings. Documentary research was carried out in many documentary centers in Cameroon.

Consultation of research works in state University libraries

A series of research works were exploited both published and unpublished on the forces and weaknesses of road construction in different countries of the world, Africa, Cameroon, in the SouthWest region of Cameroon and Manyu division/Mamfe in Particular. The consultations of these works permitted a good situational analysis of the research topic. There were many unpublished works consulted at the University of Yaoundé I central Library and the recent Masters and PhD library of the FALSS of the University of Yaoundé I. The departmental libraries of Geography, sociology, history and Anthropology of the University of Yaoundé I were also exploited. These libraries which were mostly rich in memoires and

theses on transport permitted the author to have a grasp of how the phenomenon is operating in other parts of Cameroon and the world at large. The libraries of the higher teacher's training college of the University of Yaoundé I and Bambilli were of great importance to the work.

Consultations of research works in specialized documentation centres

Specialized libraries on development studies were also visited as they have a direct relationship with the present study. A diversity of books, journals, articles, newsletters and end of course dissertations were exploited in these centres. These include the Paul Ango Ela centre of Yaounde which is very rich in documents concerning political science and development. This library permitted the researcher to have a grasp of the political evolution of decentralization in Cameroon and other parts of the world. The regional Pan African institute of development in Yaounde, Buea and Douala were equally visited. The visit to the Pan African Institute for development were very important because it permitted the researcher to broaden his scope on case studies carried in other parts of Cameroon especially the South West region. The CEFAM library in Buea that was also exploited enriched the work. It should be recalled that it is in this center that municipal councilors are trained. So, a lot was learned from specialized books and publications found in this library.

Other libraries were visited in other towns of Cameroon. It is true that these libraries did not provide specific information for this study, but broadened the scope of reasoning of the researcher on the notion of transport. Some of such libraries include the British council libraries in Yaoundé and Bamenda, the World Bank information service, United nation information centre. Though these documents were not specific, they permitted the researcher to further understand the economic and development situation of Cameroon

Consultation of documents in some regional development institutions

There are some state institutions that furnished the research with valuable material. The SouthWest transport office and SouthWest development 31considered as a giant developmental structure in the South West Region as they coordinates development and transport activities of the Region. Archives of this structure were consulted in order to see how far it has helped and collaborated with other stake holders in enforcing the process of transport. Other institutions visited in the region include the PNDP. These structure provided information on the general development of the South West Region but also on the link between these structures and local authorities in the framework of decentralization.

Consultation in international cooperation institution, international and local NGO's

The preliminary survey carried out in 2015 permitted the identification of both external and internal stake holders involved in the process of decentralization in the Bamenda city. Some of these structures be them local, national or international were visited to have a grasp of their contribution to decentralization in the city of Mamfe. They include PLAN Cameroon, the Heifer project, the GIZ and some CIG's.

GIZ is one of the organizations that have distinguished itself in promoting grass root development. Their center in water tank in Mamfe was visited to know the different projects they have initiated, funded, co-funded and coordinated in Mamfe. The 32 analyzing is noted for her close collaboration with indigenous actors. GIZ office was visited severally. This is because she has been existing in the area for long. The organization has played a big role in enhancing the activities of farmers and peasants of the area of study. Information gotten was mostly relative to what the organization has been doing in training farmers, reinforcing their capacities and their collaboration with local actors.

PLAN Cameroon has carried out a lot of development in the South West Region as a whole and Mamfe city in particular. Their regional office in Buea and Kumba where files from all over the region are stocked were consulted. This was not only to see the projects realized by the organization but it was also to see the type of relationship that PLAN Cameroon has with the Mamfe city council and the sub divisional council.

Village development committees, associations, meetings were equally visited. This was to gather information on their participation in development and how they helped the local authorities in enforcing development. Some consultancy firms were consulted. The information and data gathered from local, national, regional, and international Non-Governmental organization and consultancy firms was of utmost importance for this work. Quality information which could not be found in state offices was gotten from these organizations which at times are brought by state service experts on consultancy purposes.

Study of monthly, semester and annual reports

The monthly, semester and annual reports of the different departments of the Mamfe city council were exploited. Services of the sub-divisional councils that constitute the council were equally exploited. In the Mamfe council, the computer unit was visited to grasp information on the evolution of building permit and road construction in the town. The visit

to the follow up unit consisted in gaining statistics of cars and goods impounded over the years. The exploitation of archives at the directorate of urban development permitted the researcher to gather data on the evolution of waste management, Professional relations with government departments concerned with town planning, environment, transport, hygiene and Sanitation, elaboration of traffic circulation plans for the town council area and following up their implementation, fighting against the illegal occupation of roads in the city council area and maintenance of public parks, gardens and other leisure spots. The directorate of administrative and transport was equally visited. This permitted the researcher to have an idea of the human resource of the city council and their capabilities in assuming their tasks. The other directorate of the councils were equally visited and their archives exploited by the researcher.

At the level of the sub-divisional councils, the reports of the different services were also exploited notably the technical service, public relation office, hygiene and sanitation service, finance and treasury services.

Exploration and exploitation of the print and audiovisual media

The radio, newspapers and television constitute important sources of information and data collection for local and participatory development. This study explored many local newspapers such as Cameroon Tribune, la voix du paysan, le Messager, Mutations, the post, the herald and international journals such as Jeune Afrique economique, and many others which were vital for this study. Concerning the audiovisual media, Cameroon radio television (CRTV) which is leading in this sector provided information on the different meetings, colloquiums, seminars debates and conferences on decentralization. Such information permitted the researcher to attain meetings and training seminars on decentralization and local development. Programs on CRTV channel such as Scene de presse, press hour and regional news were fruitful for this study. It also permitted the researcher to broaden his spectrum of information and data. Other audiovisual media that enriched the study with information include Vision 4 (club d'elite), Canal 2 with its famous program canal presse, Equinoxe TV and a few others were detrimental in completing information gathered from other sources.

The above sources of gathering information were complemented by modern and advance information and communication technology such as the internet.

Internet Exploitation

Concerning decentralization and local development, very few libraries propose documents capable of giving a global view on these themes. But the internet came in as a solution to this problem. Through the internet, works from all over the world were read. Care was taken to select well referenced information published by local, national and internally recognized institutions. The internet broadened and widened the scope of the present research.

Primary sources of data and information collection

Documentary research and pilot survey conducted in the study area facilitated data collection.

These secondary data sources and information were not satisfactory. Hence a plethora of techniques in collecting primary and secondary data were used. Primary data has that advantage that it provided not only quantitative but also qualitative data. It also furnished information for the visual and cartographic presentation of findings.

It should be recalled that the 6 field assistants aided during this phase of the research. The researcher met with the field assistants. The aim was to test the questionnaire and to explain to them the objectives of the research so as to kick out all doubts. After testing the questionnaires, another meeting was held with the field assistants. This meeting was to permit them give their point of view especially on the reaction of the respondents. Their comments were noted and substantial amendments brought to the questionnaire proper. Another issue consisted on drilling the field assistants on the sampling technique and methods of presenting the questionnaire to potential respondents such as to avoid embarrassment and harassment. Didactic materials were handed to them. These included pens, pencils, files and notepad.

Field work was done to verify the hypothesis elaborated for the study so as to attain the set objectives of the study. Questionnaires and interview guides were established to respond to the research problem. An observation chart was also formulated to guide the collection of field data. The first field trip that was done was purely exploratory and the second trip was to carry out some sort of a pre-survey, observations and haphazard unstructured interviews to be sure of the objectives, hypothesis and statement of problems that constitute the backbone of the study.

Observational procedure.

Observation as a scientific procedure permits the researcher to build a strong base which enables us to see the distance that exists between the existing situation and that which is desired to be attained. The present study started with a pre-survey which aimed at observing and appreciating the participation level of the councils and inhabitants in development of Mamfe. The researcher was curious to know and see how the town dwellers of Mamfe are perceiving and implementing the ongoing developement process through road constructions in Cameroon. Observations were to a certain extend to see the different projects that have been realized and brought a change in the standards of living of the inhabitants. Research observation constitutes the scientific framework on which the problem, research objectives, research questions and research hypothesis were built. Observation constitutes an important part in a research work because it is after the observation of an existing and questionable situation that a researcher is apt to carry out a planned and scientific investigation. Despite that observation is at the base of all research works, it is not the only research procedure for it may not present clear and concise facts of an existing situation. This is the reason why documentary research is important in bringing out the scientific framework of the study.

Direct observation

Direct observation stems amongst the oldest tools used in the past by social scientist. Field phenomena can be well appreciated through direct observation. In social sciences, this tool is accompanied by snap shots to clearly demonstrate the existence or none existence of something and visually show field findings. Through direct observation, the Mamfe water project at Nchang can be visualized and the bridges constructed along the Bamenda-Mamfe road to link the two towns was also visualized. Direct observation permitted the identification of realized projects, those under realization and those to be realized in the nearest future. This tool permitted the researcher to make an inventory of infrastructural development realized by territorial bodies in the study area. Observation was closely followed by questions to various stake holders to know who, how, why and when a particular project was analyzed. Direct observation at times may be suspicious since people are very dynamic especially in the study area. This is the reason why the researcher complemented direct observation with participant observation.

Participant observation

Contextually, it necessitated the researcher with the different field assistants to spend time living or working in development projects with people in order to better understand their motives of participation. It entailed participating and observing at the same time. The researcher had the opportunity to participate in the November 2016 budgetary session of the Mamfe council, and different meetings of the sub divisional council. This permitted the researcher to see the ambiguity that exists between the of the Sub-divisional council and the views of the Mamfe council. The research witnessed their debates, saw how they chose priority projects, took major decisions and different level of participation of each actor.

The researcher was integrated in the execution of certain tasks. In the month of September 2016 the researcher was integrated in the municipal police unit of the Mamfe council charged with impounding vehicles that are wrongly parked in towns and buildings areas without building permits. The researcher observed and saw how vehicles are impounded, carried with the council truck and brought to the council park. The researcher also witnessed the seizure of building materials on building sites not possessing a building permit delivered by the Mamfe council. Through exchanges, quality information was captured during participatory observation. Such information guided the research team to mould out the interview guide.

Semi- structured interviews

The game of asking questions in an arranged manner and listening to answers brought forth are good ways of obtaining information. It stems amongst the techniques of grasping qualitative data. This method entails exchanging with persons of various categories. In the present study semi-structured questions were posed to key and resource persons of the Mamfe community and beyond. This was with the objective of grasping their knowledge, experience and reshaping the study where necessary.

The researcher opted for an approach of open interviews because a close and narrow structure interview could have narrowed answers from interviewee and consequently the scope of study. Hence it permitted the subject to be constantly evolving.

Key persons interviewed included administrative officials. In the range of these officials, the Senior Divisional Officer for Manyu division was interviewed. The interview session with this authority consisted on knowing the working relationship that he has with the mayor of the sub-divisional council and his deputies. Next, was the interview granted to the

sub-divisional officer of the Sub-division. The objective of this interview was to know how the follow up unit for transport at the sub-divisional level function and the results that this units have registered for the past couple of years. Another point of interest in their interview was to understand the different points of antagonism between the sub divisional and divisional officers and the mayors and how these actors interact with other, involved in promoting the developmental process of Mamfe town.

Another group of people interviewed were the amongst the 22 councilors of the council, the researcher succeeded in interviewing them. Their interview furnished the researcher with information concerning the way decisions are taken at the city council before implementation. Traditional authorities of the Mamfe municipality were equally granted interviews by the researcher. It should be noted that these traditional authorities have a key role to play in the ongoing process. The Chief of Egbekaw and of Okoyong were interviewed. The aim was to know the degree of intervention of these traditional rulers in the process

The three secretary generals of the three councils were also interviewed. This was to understand the level of management of administrative affairs in the different councils. Other resource persons interviewed equally provided useful information for the present piece of work. Apart from semi-structured interviews as a method of primary data collection, focus group discussions were also analyzed to complement certain information.

Methodologically, a focus group should comprise 10-30 persons depending on the objectives of the theme. These discussions enable people with different view point to put forth their views, assumptions, differences, difficulties and come to a compromise beneficial to the entire community. A research on transport like the present one necessitates focus group discussions wherein different actors will express their views so that the way forward can be found. This tool permitted the gathering of information and data of a large number of people in comparatively little time. A Focus group discussion was amongst 37 and some important council workers. This focus group was held in the Mamfe sub-divisional council. The objective of this focus group was to put in one table of the Cameroon people's democratic movement who are presently managing the Mamfe Sub-divisional council. This focus group drew the attention of 11 people.

Two other focus group discussions were one of the focus group took place in Main street neighborhood which involved developmental actors of certain civil society

organizations, some quarter heads and the general public. The other one that was had the same quality of members as that in Mainstreet. The main aim of these focus groups was to evaluate the interaction that exists between actors that are not of the government wing.

1.12 Population of the study area

The population of the study area was composed of 18 localities found in Mamfe Sub-division. These localities included; Main Street, Haussa Quarter, Nchang, Mile one, Eshobi, Banso Quarter amongst others. These 18localities regroup a total population of 38104 inhabitants and 4244 households (BUCREP, 2010 population and housing census). However, 7 of such localities were sampled out for the study. The localities sampled for the study were; Main street, Haussa Quarter, Nchang, Mile one, Eshobi, Banso Quarter and Mamfe town. The selection was based on the proximity of these area or localities to the high way and their benefits to the high way. Table 3 shows the total population and the households in the sampled localities.

Table 1: The population of the study area

Number	Localities	Population	Households
1	Mamfe town	13046	322
2	Banso quarter	1783	432
3	Hausa quarter	1587	392
4	Main street	2161	627
5	Nchang	2478	583
6	Mile one	2839	592
7	Eshobi	2214	403
Totals		26108	3351

Source: BUCREP, 2010

The sample size of the population of the study area

The sample size of the population of the study was drawn from the 3351 households in the study area following the 2010 population and household census. The reason for this rational use of households was that, it is much easier to administer questionnaires in households than individuals in streets and this will equally reduce cost and facilitate the work. To this effect, 4% of the households made up the sample population of this study that produce an in miniature cross section of the population.

The reason for choosing a 4% sample size is in accordance with the postulation of Nwana (1982: page 92) which stipulates that:

- If the population of the study is in hundreds, a 40% or more sample should be used,
- If the population is in many hundreds, a 20% will do,
- If the population is in a few thousands, a 10% will do and,
- If the population is in several thousands, a 5% or fewer samples will do (Nwana, 1982, quoted by Tufoin, 2019)

Furthermore, the 4% chosen was to ease the work due to the fact that the anglophone zones of Cameroon have been facing socio-political crisis and it was not easy to administer questionnaire to a very large population.

The 4% sample size for this study was selected from the total number of households in each village using the formula: x* 4/100 where;

X = number of households

*= multiplication sign

4 = sample size chosen

From the total number of households, a 4% sample size household was selected. This 4% sample size gave 132 households to which questionnaires were to be administered. This sample helped the researcher to know the total number of questionnaire to be taken to the field for effective administration (table 2).

Table 2: The population of the study area and effective respondents

Number	Localities	Population	Households	4 % sample size	N/Eff. Res.
1	Mamfe town	13046	322	12	8
2	Banso quarter	1783	432	17	15
3	Hausa quarter	1587	392	15	13
4	Main street	2161	627	25	23
5	Nchang	2478	583	23	18
6	Mile one	2839	592	24	19
7	Eshobi	2214	403	16	14
Total		26108	3351	132	110

Source: Derived from table 1

Questionnaire survey

The choice of using a questionnaire for this research was to ensure adequate quantitative data to a greater extent and to a lesser extent grasp qualitative data. The questionnaire was designed in a way to know the level of understanding of the transport process by the potential respondents. The questionnaire was mixed that is they included both close ended and open ended questions. This was to give a high margin for respondent to express their views.

The approach that was adopted for the distribution of the questionnaire was the face to face approach. This approach is noted for its flexibility and simplicity. This permitted the researcher and his field assistants to aid some of the respondents in filling the questionnaire. This led to a high response rate. About 70 % of the questionnaires were administered in this way. The drop and pick afterwards questionnaire method was then used for the other 30% of the households that could not fill the questionnaires instantly. The other methods such as responding by postal mail and internet surveys were not considered by the present study.

Sampling technique for the survey instrument

Sampling constituted one of the main axes for primary data collection in this piece of work. It was detrimental to confront the point of view of key and resource persons to those of the lay man in the streets of Mamfe to eventually have an acute view on the trend of transport in this town. The target population in this study are the inhabitants of Mamfe. Due to the large population size of the town, a sampling technique was chosen to ease information gathering. The sampling technique used in this study is the simple Random sampling technique. According to Francis "*with Random sampling, we obtain estimates without systematic error or very negligible errors which are closer to zero*". This sampling method proved to be the best for this study because the houses in the city are not numbered, so systematic and stratified sampling was impossible regarding the means at the disposal of the research team. In the Random sampling technique, all the individuals of the target population have the same opportunity to be included in the sample frame.

The field assistants had prior preparations concerning questionnaire administration with the researcher so, at this phase of the research, they were well armed. The distribution of questionnaires included the urban and semi urban areas of the sub divisions. The study area being a town with its inhabitants involved in diverse functions of life, the cited time for administration of questionnaires was in the evenings when the household heads are back to

their homes from work. In certain areas weekends were best for the questionnaire administration especially on Sundays immediately after church services.

The low literacy level of certain respondents especially in the semi urban part of the city of Bamenda made the work a bit tedious for the field assistants and the researcher. Certain respondents had to get their questions translated into pidgin by the research team and the answers then written in English in the questionnaires.

The questionnaire response rate

Many field trips were carried out by the researcher to the area of research and added to the point that the field assistants are based in the zone of study. The rate of response to the questionnaires was very high. This impressive rate can be attributed to the field assistants who were resident in the study area and also the researcher benefited from the field assistance of council development officers each from the three sub divisional councils that make up the city of Mamfe. They were also very helpful since most permanent residing inhabitants of the city know them, certain respondents could easily attend to the research team in their presence.

After sorting and cross checking, 110 questionnaires were validated for analysis. This gave a response rate of 84.71%.

Data treatment, presentation and analysis

In this research, several types of data were collected that were accorded different types of treatment before presentation, analysis and interpretation. These types of data principally consisted of qualitative and quantitative data. The data collected embodied interview data, focus group discussion data, questionnaire data, cartographic data and observation data. As earlier stated, these data were treated differently and presented in the form of graphics, figures and tables.

Interview, focus group discussion and observation data, treatment, presentation and analysis

The treatment of qualitative data began with data coding where the Strauss method of open system data coding was used. In this case, categories of responses from respondents and the major themes were identified, assigned and classified. These categories were manually recorded on a prepared block note as per objective of the study that enabled the formation of *constructive codes* from *in vivo* codes obtained during interviews and focus group discussions. The *in vivo* codes laid emphasis on the participants' actual spoken words. This

type of data coding method championed because of its usefulness in highlighting the voices of the participants themselves during interviews and focus group discussions. The *in vivo* coding method was also used because it was thought to be very reliant to pass across the message using the direct words of the participants. The codes obtained as per objective of the study included;

Objective 1: Urbanisation, urban challenges, road networks, reasons for urbanisation, mobility and exchange etc.

Objective 2: Trade and commerce, illegal trade, livelihoods enhancement, road infrastructure, social amenities.

Objective 3: transporters challenges, state of the roads, corruption, insecurity, policy implementation by state officials.

These codes were presented and analysed in the three chapters of the study using both inferential and descriptive statistics and the results interpreted where meaningful conclusions were drown.

Observed phenomena were captured with the use of a digital camera. These data were input in a Photoshop software where the photos were enhanced through enlightening and clearing off impurities found in the photos to make them very clear and visible.

Cartographic data treatment presentation and analysis

This category of data was obtained with the use of a Global Positioning System (GPS) where by waypoints were collected on motor parks, fuel sales points, repair garages, and the various spare part shops in Mamfe Sub-division. These data was downloaded from GPS and superimposed on cartographic shape file of Mamfe Sub-division where they were spatialised in space and the information presented on maps, analysed and the results interpreted for spatial analysis. As concerns road network and relief maps realised, the data was obtained from the National Institute for Cartography (NIC) and uploaded into cartographic shape file of Mamfe Sub-division from which the maps were realised for spatial analyses.

Questionnaire data treatment, presentation and analysis

The data that was collected with this instrument was largely quantitative data and required a succinct method of treatment and presentation. Questions in the survey instrument that required the respondents to choose from a range of options were weighted one point for easy quantification. These statistics were collected for each question in the questionnaire after

which they were input in Microsoft excel where the totals of the villages were summed up and the totals of the clusters obtained since each cluster was made up of several villages. Tables carrying the statistics, totals and percentages were generated. From the totals and percentages obtained, various graphs such as pie charts, bar charts and areas were generated for analysis. Many tools and instruments were used in this study that assisted in the collection of data (table 3).

Table 3: Tools instruments and uses

Tools and instrument	Uses
Microsoft word and Excel	To treat qualitative data and to obtain graphs
Adobe Photoshop	To enhance photos and clear off impurities
ArcGIS (shape files) and Adobe illustrator	To realise maps
GPS	To collect waypoint
A digital camera	To capture phenomena
Questionnaire	To collect quantitative data
Google maps	To collect spatial information on space and to verify roads and relief maps realised
The eye	It was used to observe phenomena
Appendices	For the clarification of assertions made in the study

Source: *conceived by the author*

The work proper began with a plan adopted for the reader to have a vivid rundown of the content of the work from general introduction to general conclusion.

1.13 Plan of work

The general introduction of this work covers the background of the study, delimitations of the study, the problem statement, research questions, objectives and the hypotheses of the study. The literature review, concepts as well as theories related to the topic are equally examined in the general introduction. This section of work also carries the research methodology.

Dissertation chapter layout

The study embodies three chapters which are further subdivided into sections. These sections incudes principally the introduction, discussions of the data presented in the chapter and finally a conclusion which finally crowns the chapter. This conclusion simply recaptures and summarises the main issues raised and discussed in the chapter and introduces the next chapter.

Chapter one investigates the implications of the construction of the TAHW via Mamfe and its implications in the urbanisation rate in the Sub-division. Here, data on satellite images and population data is being used to demonstrate the rate of urbanisation in the Sub-division from the construction of the road. Determinants of factors of urbanisation have also been pointed out. Socio-economic benefits linked to urbanisation and its various dimensions have not been diluted. More so, urban related issues are also examined in this chapter and then a conclusion which introduces the next chapter.

Chapter two elaborates on how the construction of the high way road has influenced trade and commerce both at the internal and external levels. The different in which this high way has contributed trade development are all announced in this chapter. Various businesses that has been setup in Mamfe Sub-division are all analysed in this chapter. Cross-border trade is also examined. The problematic such as the flow of illicit goods such as fuel drugs are all components of this chapter. Reasons for the persistent flow of such harmful goods are also a reason elements pointed out in the chapter. Mobility and circulation of people and goods are not left out of the chapter.

Chapter three sets out to assess the challenges confronted by the Bamenda-Mamfe high way road users. These challenges were perceived in three different dimensions which the administrative, socio-economic and communication and all the embedded elements were well exploited and given an exposure to attain the objective of the chapter. The data collected, presented, analysed and interpreted in this chapter helped in the validation of hypothesis three which focuses on the challenges faced the high way road users.

General conclusion focuses on the verification of hypotheses, summaries of findings, conclusions and suggestions or recommendations and finally references.

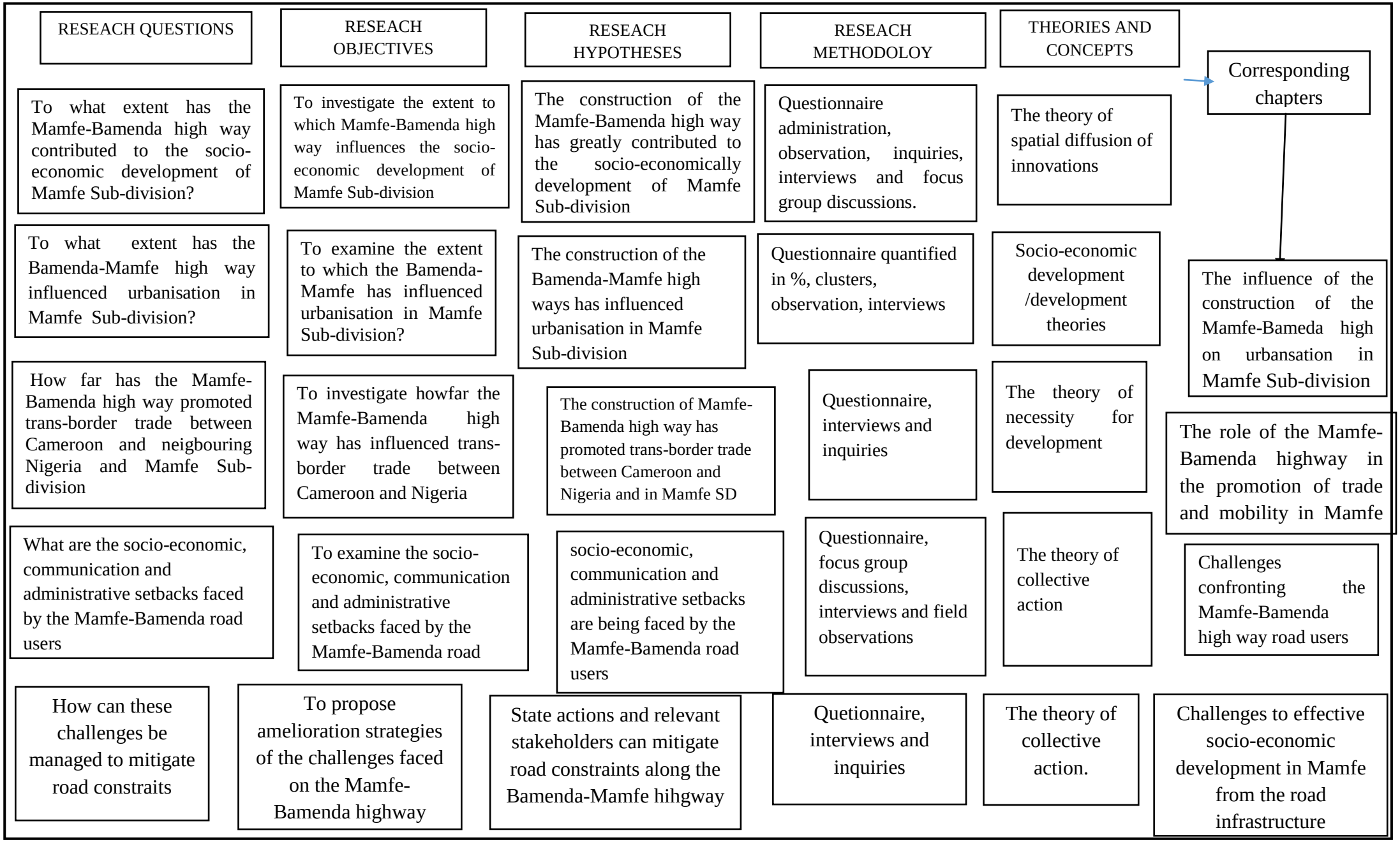


Figure 4: syntax table

Source: Conceived by the author, inspired by master's 11 classes and field work,

CHAPTER 1

THE CONSTRUCTION OF THE MAMFE-BAMEDA HIGH-WAY TO URBANSATION OF MAMFE SUB-DIVISION

1.0 Introduction

It is commonly said that where a road passes, development follows. This development is usually accompanied by rapid urbanisation on road network linkages. The magnitude, determinants, rate and the spatial distribution of urban growth or urbanisation are major concerns for policy makers. Accessibility, neighbourhood interactions and spatial policies are argued to be the most influential factors oncontemporary land use change (Verburg et al., 2004). The Mamfe-Bamenda high way road has inflicted a lot of urbanization in the Mamfe town especially where the road passes. It has also encouraged the creation of some secondary roads to link some rural areas. Transport infrastructure is believed to stimulate and guide urban growth via the improvement of accessibility (Anas et al., 1998). This assumption is demonstrated in a long tradition of policies aiming at channeling urban growth by investing in transport infrastructure. It is also known that urbanization is more likely to happen near existing urban areas, examples being the concentric development of cities or the appearance of suburbs nearby major cities.

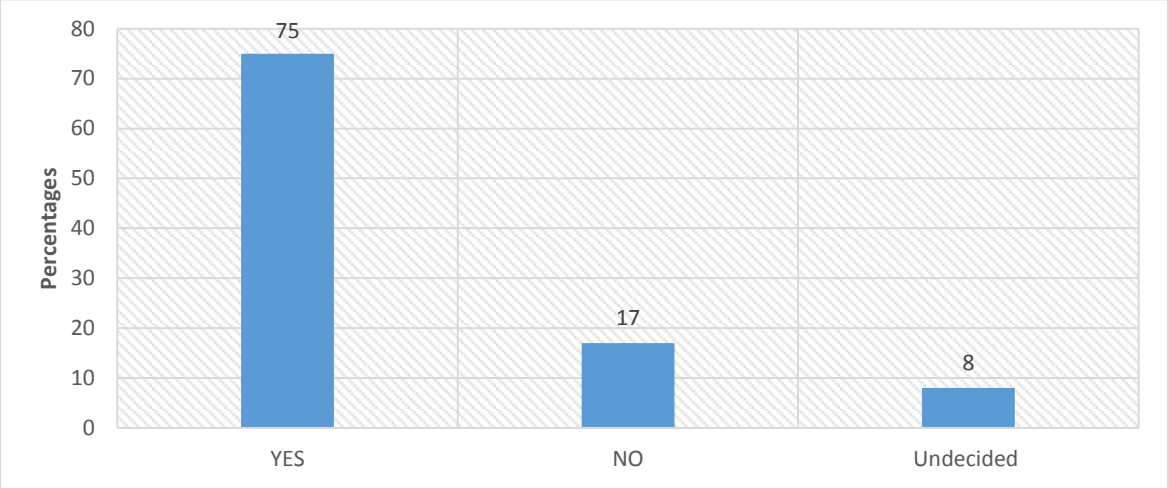
This chapter sets out to investigate the influence of the Mamfe-Bamenda high way on the urbanisation of Mamfe and related ills. This is in line with hypothesis 1 which stipulates that; the Bamenda-Mamfe high way has greatly contributed to urbanization in Mamfe town withs its related ills. The data that was collected in line with the above stated hypothesis is presented in this chapter to help verify the hypothesis. This chapter carries an introduction, three sections and a conclusion. The introduction dwells on the main ideas and how the chapter is subdivided.

1.1 The construction of the Mamfe-Bamenda high way and urbanisation in Mamfe Sub-division

The importance of transport infrastructure to a nation cannot be overemphasized as efficient transport infrastructure facilities act as catalysts for development and urbanization. There is therefore cause for concern while considering the transport infrastructure base in Cameroon today to actually examine how most of the high ways have resulted to spatial

urbanization in concerned areas. Before the construction of the Mamfe-Bamenda high way, the rate of urbanization of the town and environs was very slow. In fact, most of the areas in the in this Sub-division were enclave which went a long way to affect the socio-economic development of the Sub-division. After when the high way was constructed, it triggered rapid development especially as many people were now moving into the town of Mamfe.

According to our survey instrument, responses of respondents pointed out that the rate of urbanization in Mamfe town increase speedily during and after the construction of the high way (Figure 6)



Source; Field works, 2021

Figure 5: Respondents perception on the urbanissation rate in Mamfe town

From figure 5, it shows that 75 % of respondents were of the view the construction of the Mamfe-Bamenda high way has facilitated the rate of urbanization in the town of Mamfe. Interviews with some respondents ascertained to this assertion that the construction of the high way has been able to pull a great deal of people from neighboring villages and interiors to the town of Mamfe which has ignited urbanization in the town. Response scores from the table further depicts that 17 % of the respondents did not perceive any growth of the town or urbanization in the town of Mamfe. This is properly those who have not been in the town for a long time and thus are unable to notice the growth. 8 % of the respondents were of indecisive as to whether the town has grown there has been urbanization or not resulting from the construction of the Mamfe-Bamenda high way. Anas et al, (1998) highlighted that transport infrastructure is believed to stimulate and guide growth via improvement in accessibility. These findings falls in line with our findings where transport infrastructure in

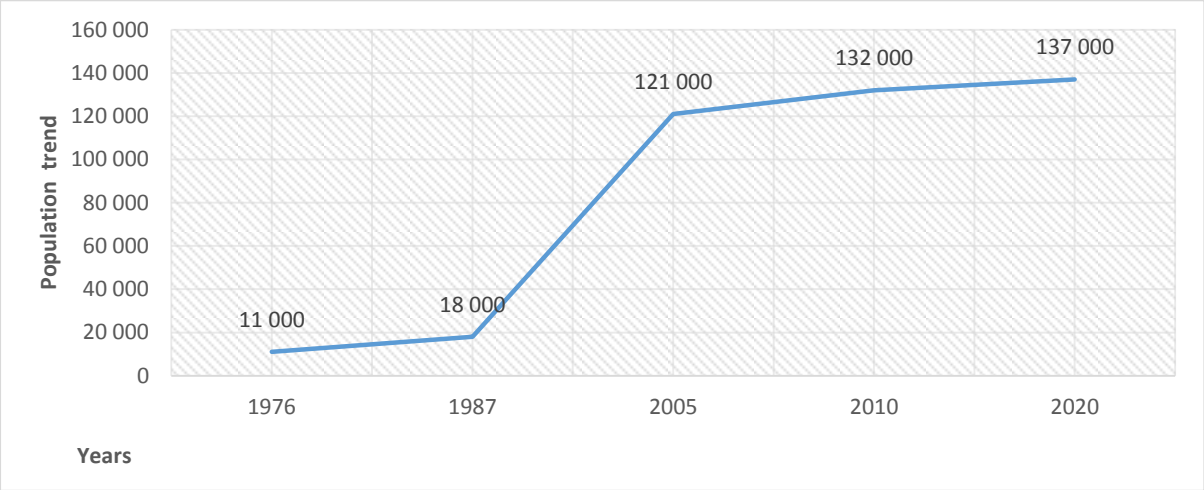
the town of Mamfe has caused the urbansiation of the town of Mamfe. Since urbanization entails increase in the propotion of people living in towns, it was vital to compare the population of the Mamfe town for some years to actually see if the rate of urbanization has increase as a result of the construction of the high way.

Table 4: Population evolution of the town of Mamfe from 1976-2020

Years	1976	1987	2005	2010	2020
Population	11,000	18,000	121,000	132,000	137,000

Source; *Compiled from BUCREP and Mamfe council, 2021*

Table 4 shows that there have been a general increase in population in Mamfe Sub-division from 1976 to 2020. According to the table, before the construction of the Mamfe-Bamenda high way the rate of urbanization was very slow. From 1976 to 1987, the population increase by 8000. From 1987 to 2005 when the project stated, the rate of urbanization was more rapid especially from 2005to 2010 when the project was finally executed. From the year 2010 to 2020, the rate of urbanization reduced drastically. This was partly linked to the socio-economic upheavals of the North West and South West Regions of Cameroon. This data was also represented in a graphical form to actually perceive the rate of urbanization in the Mamfe Sub-division which is mostly felt in the town of Mamfe (Figure 6).



Source; Computed from table 4.

Figure 6: Population evolution of the town of Mamfe under the influence of the high way

Figure 7 further shows the pattern of population increase in the town of Mamfe and the town in general after the construction of the high way. Right from 1987, there was a rapid population that increased from 18,000 to 121, 000 in the year 2005. From 2005 however,

population increase slowed down in this Sub-division. From the figure, it reveals that between 2010-2020, population increased in this town only by 7000 persons. The slow increase can be partly linked to the socio-political crises where most people where migrating out of the Sub-division. Interviews during field surveys confirmed to the study that the construction of the high way has gone a long way to bring so many people into the Sub-division especially in the town since the construction of the high way across the area.

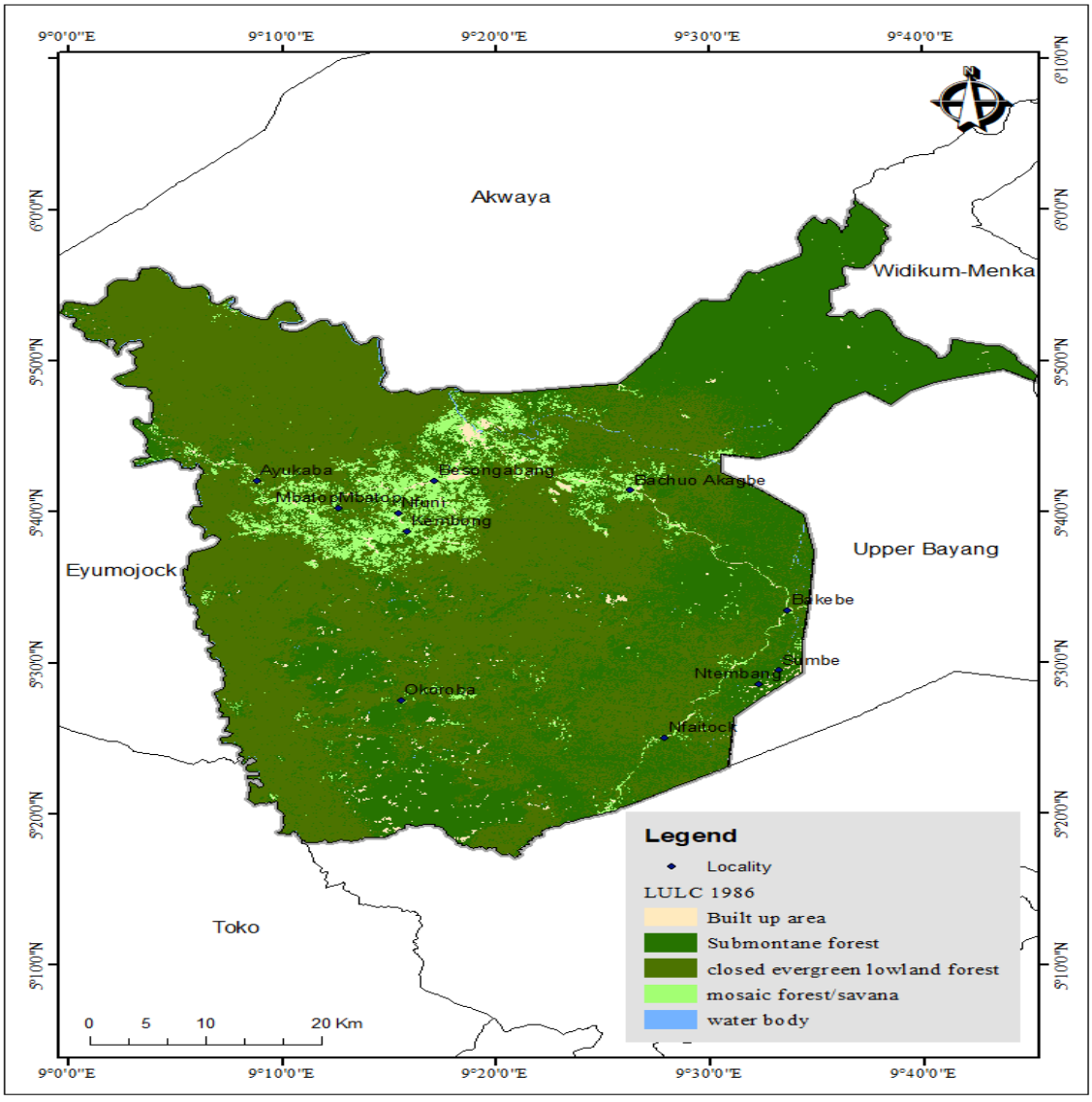
Table 5: Respondents perception on urbanization of Mamfe-Bamenda high way

Localities	**N/Eff. Res.**	**In your opinion, do you agree that the town of Mamfe have witnessed urbanisation as a result of the construction of the High way?**		
		Agree	**Disagree**	**Undecided**
Mamfe town	8	5	2	1
Banso quarter	15	7	4	4
Hausa quarter	13	8	3	2
Main street	23	15	4	4
Nchang	18	9	8	1
Mile one	19	8	2	9
Eshobi	14	13	0	1
Total	110	65	23	22
%	70	59	21	20

Source: Field work, 2020

According to table 5, it illustrates that 59 % of respondents ascertained that the town of Mamfe has withnessed urbanization since the construction of the Mamfe-Bamenda high way in 2010-2011. Interviews pointed out that the reason for the urbanization here were many and included trade and commerce, transport and transportation services, and for adventure amidst others which pull so many from the rural areas in to the town because of the construction of the high way corridor. Only 21 % of the respondents disagree to the fact that the construction of the the high way has ignited urbanization in the Mamfe Sub-division especially in the town of Mamfe while 20 % where indecisive as to whether the construction of the road has influenced urbanization or not. These are probably those respondents who have not made much time in the Sub-division and so, have not had enough time to study and understand the evolution of things in the area especially the population flow in the area. These results hold in a similar way with the findings of Dena, (2017) who noted that the influence of the road

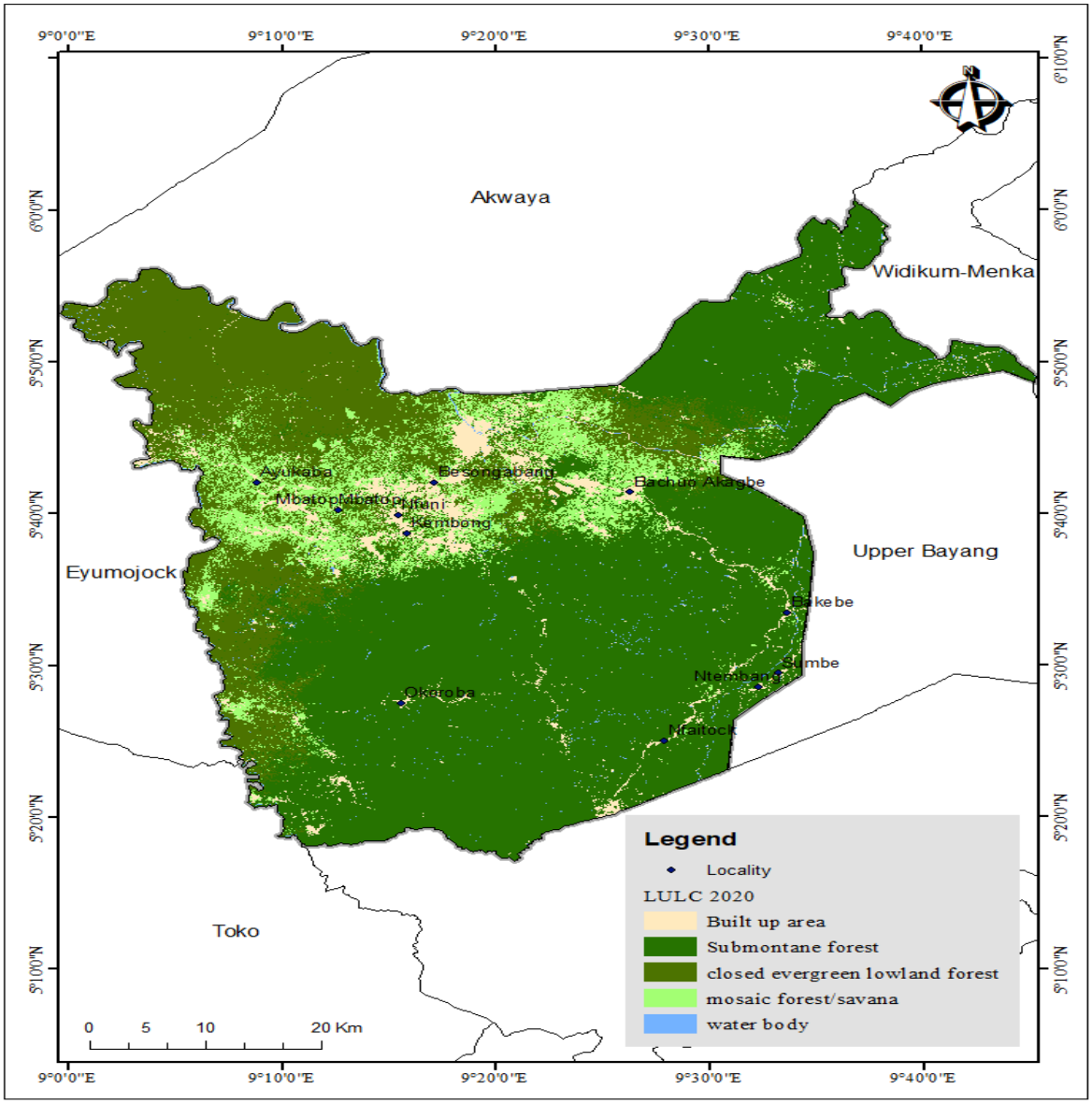
networkin a place is usually expected to be stronger than the rail network, as the road network is larger, more fine-grained and has a higher share in the number of travelled trips has the ability to influence existing urban area encourages further urbanization, and large conurbations exert a stronger attraction than smaller ones. Urbanization is not only an autonomous process driven by transport accessibility and attraction of existing urban area but also a process which is simultaneously influenced by spatial policies. It was against this background that this study investigated reasons why most people came towards to town of Mamfe after the construction of the high way and socio-economic development benefits. To appropriately apprehend the rate of urbanization in this Sub-division especially in Mamfe town after the construction of the high way, satellite images were used (figure 8).



Source: Lansat Images 1986

Figure 7: Landuse map of Mamfe central before the construction of the High way 1986

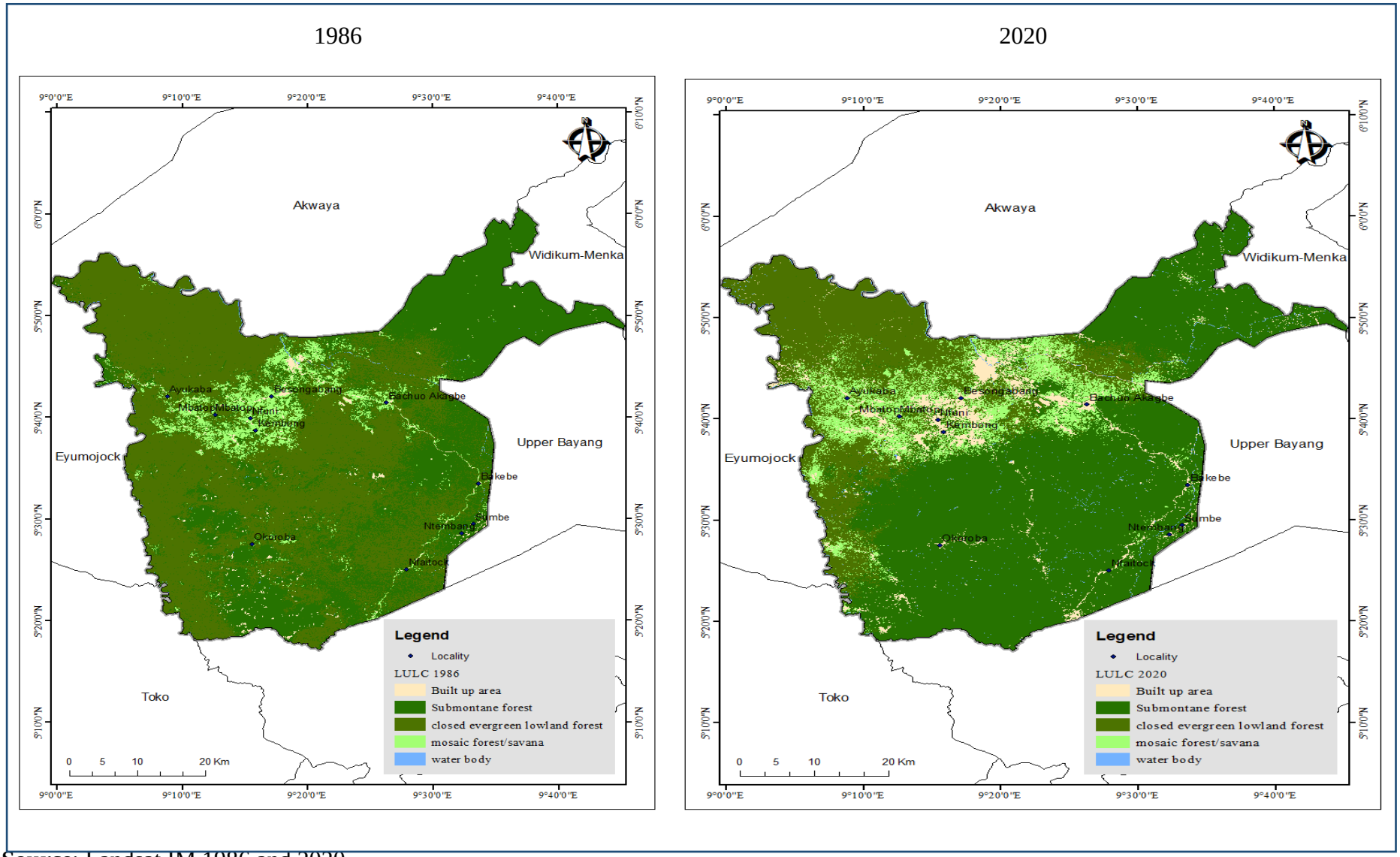
From the satellite image depicted in figure 8, one can see that by this period, the build-up area was very small probably because transport or transportation systems were very small or limited. Most settlement agglomerations were mostly tilted to the northern part of the Sub-division especially Mamfe town. As earlier noted, transportation or road development is a key to the socio-economic development of any given area. The road network in this area was very poor thus, limiting urbanisation and the socio-economic development of the area. After the construction of the road in 2011 the rate of urbanization in the Sub-division skyrocketed as they was rapid extension of the urban environment towards the peripheries (Figure 8).



Source: Lansat Images 2020

Figure 8: Land use map and cover of Mamfe central after the construction of the High way

As depicted by figure 8, there are clear evidences that the rate of urbanization in Mamfe Sub-division has increased, highly accelerated in the course of time especially in the town of Mamfe and along the highway. This is an eloquent testimony to say that the construction of the highway via this Sub-division accelerated urbanization and of course socio-economic development of the area. Just as depicted by the two satellite images, interviews and focus group discussions and observations revealed similar information of increase rate of urbanization in Mamfe Sub-division especially in the town of Mamfe where the high way passes. It was therefore imperative to place these images side by side and proper comprehension and appreciation of the urbanization rate within these years (Figure 9).

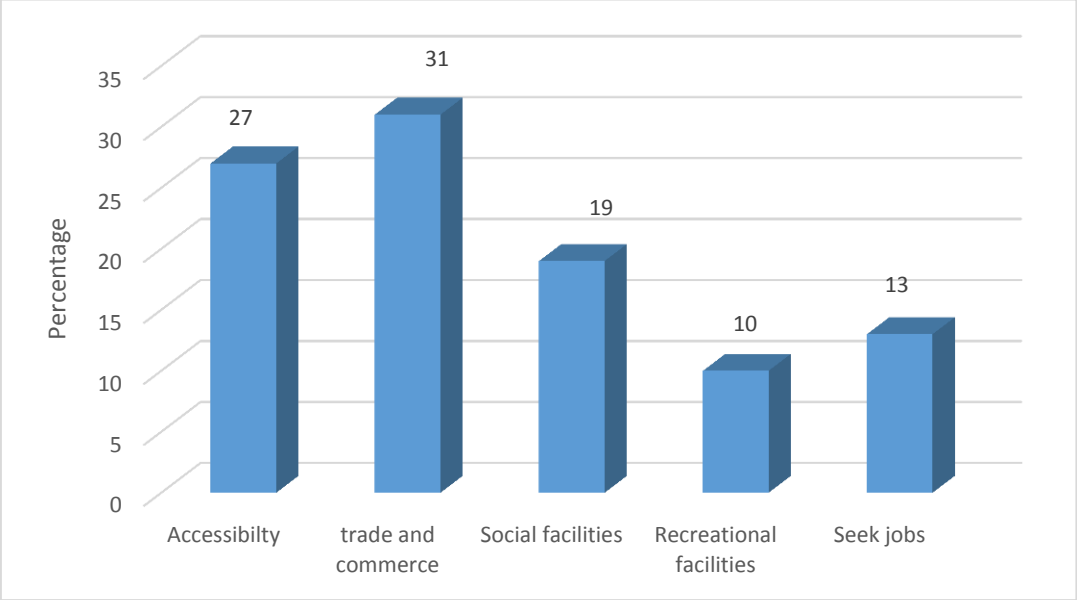


Source; Landsat IM 1986 and 2020

Figure 9: Land use and land cover of Mamfe central in 1986 and 2020

1.2 Determinants of urbanization in Mamfe town after construction of the Mamfe-Bamenda high way and some socio-economic benefits

It is an established fact in economics that cities enhance productivity and consumption benefits through various mechanisms. Within this tradition, all mechanisms proposed for agglomeration effects relate to one essential feature of the urban environment: it facilitates short-distance interactions between economic agents. This feature is at the core of the main theories, regardless of whether they focus on production or consumption. In his seminal typology Marshall (1920) suggested knowledge spillovers, labour market externalities and production linkages as drivers of urban productivity; more recently, Duranton and Puga (2004) highlight the importance of sharing, matching and learning. It is in this light that the construction of the Mamfe-Bamenda high is perceived as advantages to urbanization and related socio-economic benefits (Figure 10).



Source; Field work, 2020

Figure 10: Some determinants of urbanization in Mamfe after the construction of the high way in 2010-2011

Figure 10 shows that after the construction of the Mamfe-Bamenda, trade and commerce (31 %) was the main reason why so many people were moving into the town of Mamfe in order to sell or buy goods. This is because the high way gave an opening to many people from faraway places to came and buy or sell their goods especially agricultural products. This is also partly because agriculture does very well in this Sub-division. Interviews conducted to this effect confirmed to this fact as a good number of respondents

ascertained that trade and commerce were largely responsible for urbanization in Mamfe town and the Sub-division in general.

Secondly, accessibility (27 %) was also one of the outstanding reason why most people were moving to the town of Mamfe after the construction of the Mamfe-Bamenda high way project. This is because people could easily move their goods and circulate with them in town and neighboring areas which further influenced trade and commerce in the Sub-division particularly in the town of Memfe which has seen the rise of many markets since the construction of the high way. This results fall in line with the findings of (Tufoin, 2019) who pinted out that road construction increases accessibility and contributes immensely to socio-economic development of the given area. These two determinants of accessibility and trade and commerce which are outstanding are very important to take some detailed analysis from the responses of the respondents (Table 6).

Table 6: Respondents opinions on trade and commerce and accessibility resulting from the construction of the Bamenda-Mamfe high way

Localities	**N/Eff. Res.**	**Do you think trade and commerce and accessibility actually in Mamfe town resulting from the construction of the High way has enhance the socio-socio-economic development of the Sub-division?**		
		Yes	No	Not sure
Mamfe town	8	5	2	1
Banso quarter	15	9	3	2
Hausa quarter	13	8	3	2
Main street	23	17	2	4
Nchang	18	9	8	1
Mile one	19	16	3	0
Eshobi	14	11	0	3
Total	110	75	21	13
%	70	70	19	12

Source; Field work, 2020

Table 6, points out evidently that the construction of the Bamenda-Mamfe high way has contributed immensely to the socio-economic development of Mamfe Sub-division (70%) resulting from accessibility and trade and commerce being carried out in the town of Mamfe. The No-respondents only represented 19 % against 12 % of the respondents who were not

very sure as to wheather these two factors have effectively contributed to the socio-economic development of the Sub-division or not.

Throwing back at figure 7, it is seen that the presence of social infrastructure or facilities (19%) in the town of Mamfe resulting from the construction of the high way have also represent a significant deal of a pull factor that brought people to the town of Mamfe and the Sub-division in general. Here, social infrastructure include; hospitals, pipe born water, electricity in some areas that was extended because of the coming of the high way and a host of others (Plate 1).

Plate 1: The Mamfe District Hospital resulting from the high way construction

Source; Enow, 15th November 2021

Plate 1 illustrates the Mamfe District hospital that was expanded and improved upon when the high was constructed. This was because of an increase demand of health services since a great deal of people were now coming into the town of Mamfe. Interviews conducted the some medical personels in the hospital indicated that the construction of the high way has really played a leading role in the improvement of the hospital especially given the fact that people can easily reach the hospital and they are treated. It was heighted during interviews that;

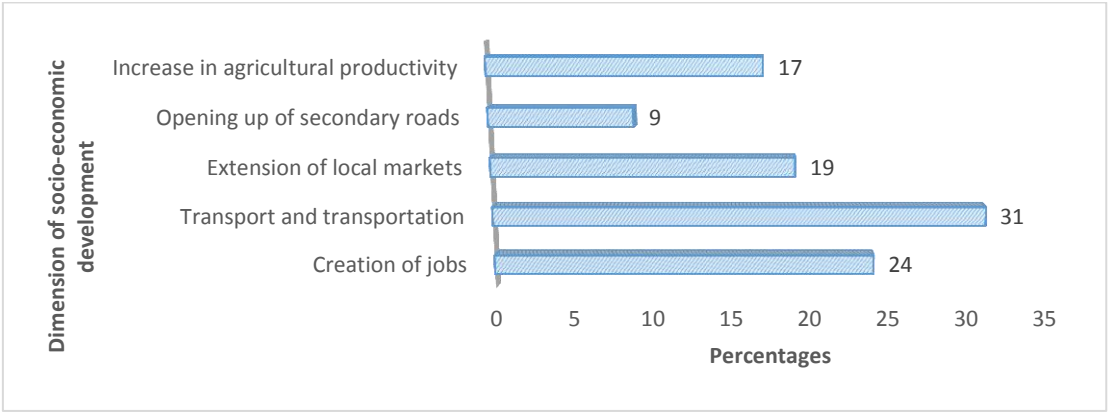
Before the construction of the high way here in Mamfe, the whole place was enclave and it was even very difficult to access some basic services such as health and markets but now, you can see that the area is very open and people can easily access their services….. further interviews with the lord mayor of the municipality expressed similar expression.

This therefore give an eloquent testimony that the construction of this high way has immensely contributed to both the social and economic development of the Sub-division. Recreational facilities (10 %) and job seeking (13%) are all driving factors that contributed

greatly to urbanisation of the Mamfe town which of cause are also driving forces of socio-economic development. Jobs have been created at different dimension in this town today and there also exist a wide array of recreational facilities which have enhanced the socio-economic development of the Sub-division in general. These driving forces of urbansation in Mamfe have simultaneously contributed to the socio-economic development of the Sub-division in diverse ways. It is imperative therefore to investigate the different dimensions of socio-economic development in the town of Mamfe ignited by the construction the high way construction

1.3 The dimensions of socio-economic development ignited by the construction of Mamfe- Bamenda high way

It is commonly said that *where a road passes, development follows*this saying holds strongly to the construction of the Mamfe-Bamenda high way where development was perceived in different ways resulting from the construction of the road which was therefore very important to investigate into the various ways that the high way influenced the socio-economic development in the Sub-division. Han et al. (2015) pointed out that urban areas are in their nature dynamic, complex structures and are pertinent to the growth in different terms physical, economic and population which so called urban growth. Urban growth is a complex process that involves spatial temporal changes of urban areas socio-economic and physical components. These changes are catalyzed by many drivers and underlying factors. Among these, transport is considered one of the main factors of urban growth which ignited the socio-economic development in different ways(Figure 11).



Source; Field work, 2021

Figure 11: Some dimension of socio-economic development induced by the construction of the Mamfe-Bamenda high way

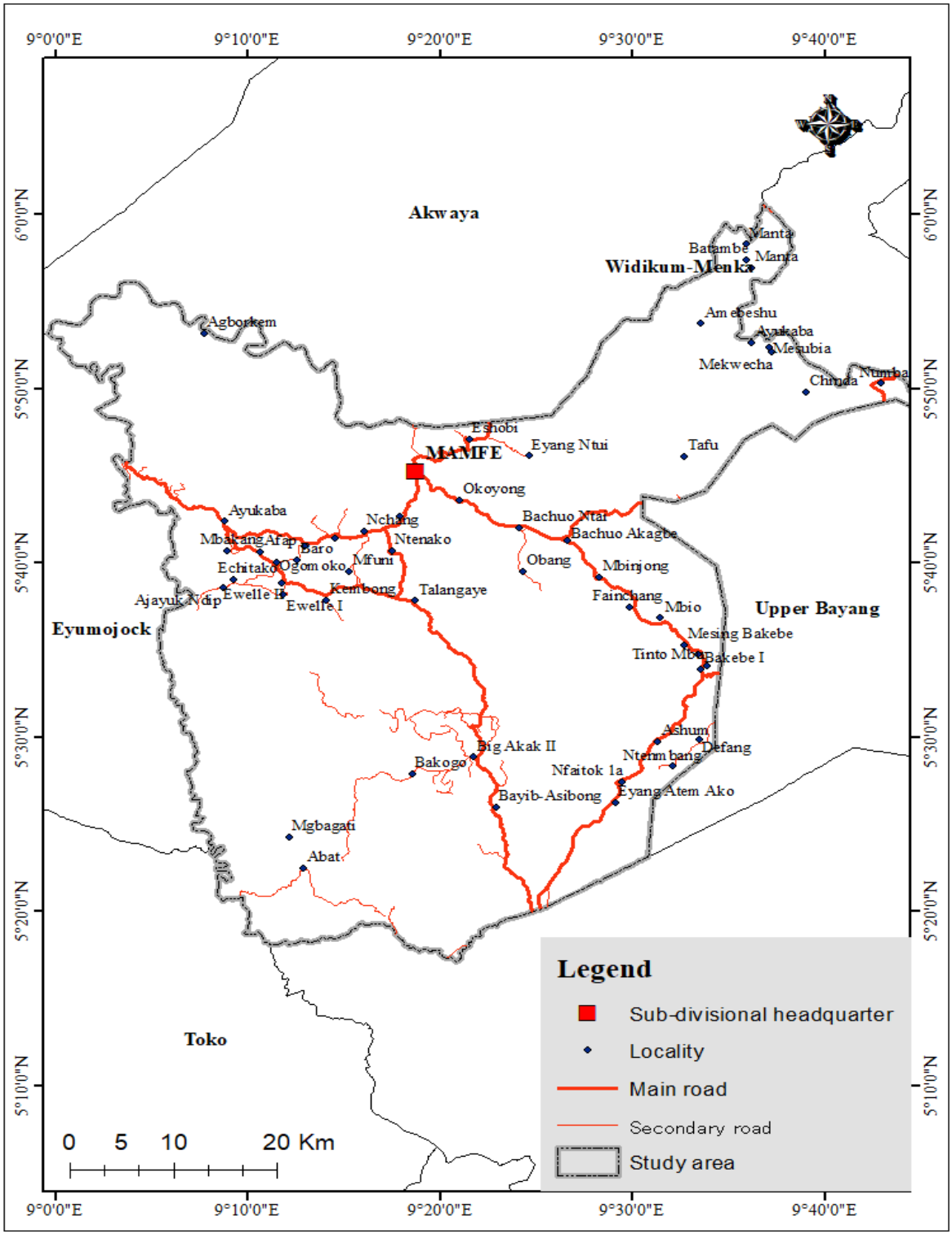
From figure 12, it illustrates that the construction of the Mamfe-Bamenda high way has contributed to agricultural productivity (17 %). This is via transportation of agricultural produce from farms to markets and homes which at first was a very difficult task because of the enclave nature of the Sub-division. Interviews with some farmers who have farms along the high way appreciated the role that this high way is playing in the transportation of agricultural products in the area which has gone a long way to increase livelihood enhancement and food security of the area especially given the fertile nature of the soils in the locality. The high way road is clean and smooth reason why it has the capacity to enhance such activities (Photo 3)

Source; Enow, 15/10/2021

Photo 1: The view of the Mamfe-Bamenda high way from Mamfe towards Bamenda

Opening up of secondary roads (9 %) as a result of the construction of the high way has also been an important element that has contributed to enhance accessibility and of the area which has gone a long way to enhance settlements and the extension of the urban area. These roads have also contributed in the general circulation of goods and services in the Sub-division and opening up of related social infrastructures such as hospitals, schools, markets shops and financial institutions which were largely absent before the construction of the high way in 2011. The high way also contributed in the extension of local markets into international markets in the which has gone an extra mile to enhance trade and commerce in the Sub-division which is intended to be handled in chapter 3 of this study.

Transport and transportation services (31 %) has been the outstanding advantage of the construction of the Mamfe-Bamenda high. Commercial transport and transportation have been at a high gear because of the construction of the high way which has also seen the opening up of secondary roads as earlier highlighted.



Source; Modified from NIC by Enow, 2022

Figure 12: The road network of Mamfe Sub-division

Vehicles leave from far and wide to the town of Mamfe as well as people simply because of the construction of the high way project in 2011. From figure 13, it reveals that the main road which is the Mamfe-Bamenda high way runs through this Sub-division especially in the town of Mamfe has also contributed to the opening of other secondary roads that did not exist until the creation of the high way in 2011. Most Sub-sections of the road are concentrated at the Mamfe town especially in the southern which is partly explained by the ease of construction of the areas linked to the type of relief. More so, a wide range of jobs have been created (24%) resulting principally from the activities induced by the construction of the high way project. This was the reason why the study actually further investigated the different types of jobs created in the Sub-division as a result of the construction of the high way project (Table 7)

Table 7: Respondents views on the jobs created in Mamfe resulting from the high way projects

Localities	N/Eff. Res.	What are some jobs created here in Mamfe resulting from the construction of high way?			
		Transport jobs	Commerce	Comm/A	Education/Health
Mamfe town	8	3	2	1	2
Banso quarter	15	6	3	2	4
Hausa quarter	13	7	4	0	2
Main street	23	13	7	0	3
Nchang	18	9	4	3	2
Mile one	19	11	3	2	3
Eshobi	14	4	7	3	0
Total	110	53	30	11	16
%	70	48	27	10.5	14.5

Source: Field work, 2021

According to table 7, it shows that transport services in Mamfe have increases since the construction of the high way which has created transport and transportation jobs to many people in the area. This represented 48 % of the domain where most jobs have been created in the Sub-division especially in Mamfe town. In the town, there exist several transporters both

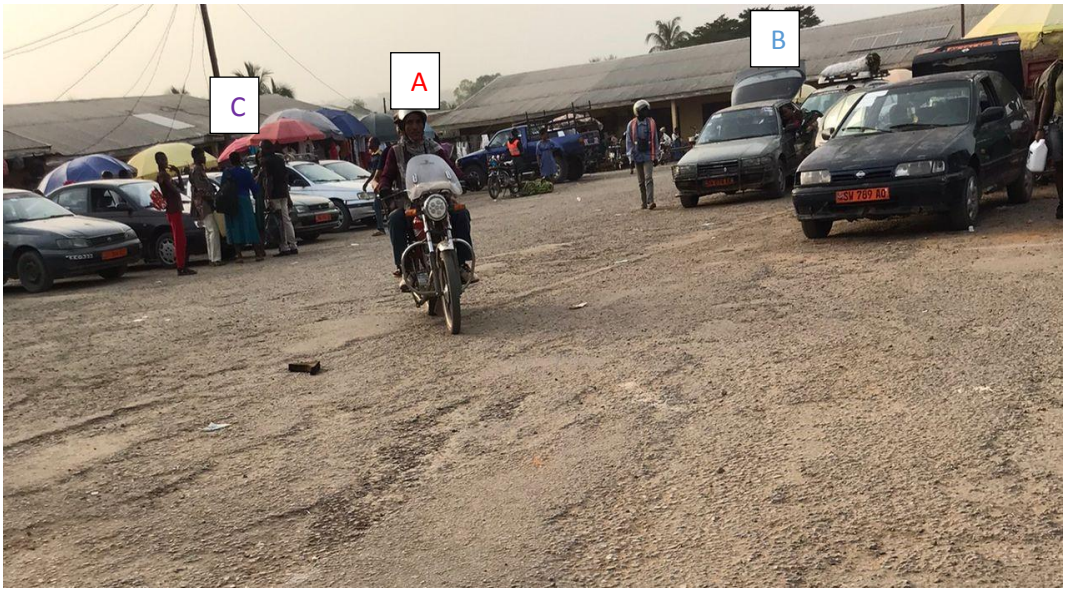
those who do the transportation in the town and across the town. It was important therefore to point out the various jobs created by transportation in the Mamfe town (Table 8).

Table 8: Transport services, number and average incomes

Transporters	Number	Average income/person (daily) in FCFA
Motorbike riders	2000	3500-5000
Taxi drivers	1700	15000-20000
Truck drivers	72	40000-80000
Clandestine drivers	N/A	-

Source: Compiled from the Mamfe council and interviews from the transporters, 2021

Table 8 shows that only in the transportation sector, about 3772 jobs have been created in the Mamfe Sub-division resulting from the construction of the high way. Commercial motorbikes alone represent over 2000 jobs earning between 3500-5000 on daily basis while for taxi drivers who have increased in the town resulting from the construction of the high way, a registered number is about 1700 who earn averagely about 15000-20000 on a daily basis. Truck drivers too who now ply the high way are about 72 in number and earn averagely about 40000-80000 on a daily basis. Before the construction of the high way, the whole area was enclave and such activities were not very common in the town of Mamfe but now the construction of the road has brought to light all of such activities creating many jobs to people in this area. Photo 3 shows a moto park in the town of Mamfe.



Source; Enow, 13/09/2021

Photo 2: A moto park in Mamfe town (mamfe main park)

(A)Shows a bike rider carrying a passenger of the a moto park (B) shows a clandestine care loading to goods and passengers to take off (C)some passengers just arriving the moto park and waiting to take off for their various destinations.

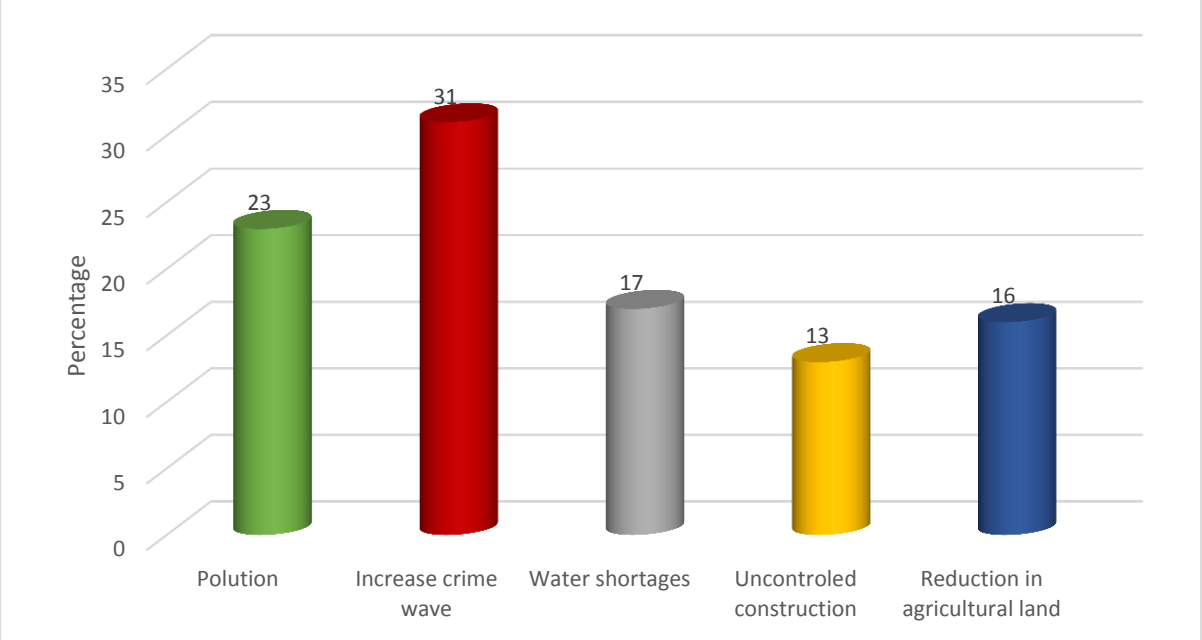
Table 6, further illustrates that commerce in the town of Mamfe has increased creating jobs to so many people who now do business in the the various markets in Mamfe Sub-division. This represents 27 % of jobs created in the Sub-division which partly linked to the construction of the high way which links Bamenda and Mamfe and also goes beyond. More so, commercial agriculture 10.5% have increase in the Sub-division because of the ease farmers can take their crops from farms to markets. This has gone a long way to increase crop productivity, yields, and above all to ensure food security in the Sub-division. Interviews with some framers and focus group discussions confirmed to the study that the construction of the high way has increase agricultural productivity and agricultural related jobs. Education and health related jobs (14.5%) have also been outstanding in the Mamfe Sub-division. This is because local hospitals and schools have been opened up simply because of the coming of the high way in the Sub-division. These activities and the rapid rate of urbanization in the town of Mamfe have not gone without some challenges especially urban social problems which are worth examining in this study

1.4 Social challenges resulting from the construction of high way

Rapid urban expansion is an important period for developing countries due to the burgeoning economy as well as the road network expansion (Henderson, 2013). The world's urbanization rate has increased from 39% to 52% for the last three decades and is expected to reach around 66% by the year 2050. The increase in urbanization in developing countries is much more rapid than in developed countries (Cohen, 2006). Managing growing cities is both critical and complex. Urbanization greatly increases convenience for the residents but at the same time carries the risks of arable land shortage, over-population, traffic congestion, food security problems, environmental pollution, public health threats, and so on. For this reason, research about the regulation of urban expansion has become even more significant in order to keep the city sustainable. The road network, the skeleton of the urban space structure, is an important driving force for space expansion and one of the key indicators of urban development. Increasingly well-developed road networks have become common in modern cities recently (Amekudzi, 2007).

A comprehensive road network is built to bring different regions closer and accelerate the information exchange between each space. However, the increasing road network cutting through the natural environment may bring about biodiversity loss, a series of environmental issues, and further facilitate urban sprawl. Thus, road network development pushes local urban expansion to a certain degree; but on the other hand, it may also be a consequence of urban development. It cannot be ignored that there is already a series of "city illnesses" due to rapid expansion, which have already had side effects on public health.

In order to explore the mechanisms of urban expansion to deal with sustainable development, studying the patterns of road network expansion is a starting point. In the case of the Mamfe high way road construction which accelerated urbanization in the town of Mamfe also facilitated a series of urban ills which are worth exploiting in this study. According to our survey instrument, a series of such ills were identified caused by the urban extension resulting from the construction of the high way.



Source: Field work, 2021

Figure 13: Some urban ills in Mamfe town as a result of the construction of the high way

According to figure 13 pollution represents 23 % of the urban ills perceive in Mamfe town. It was observed that due to rapid urbanization, the population of the town and the Sub-division in general has increased leading to challenges of waste management in the town. It was observed this population was basically issues of domestic waste management in homes. According to the Lord may of the Mamfe council area, the personality confirmed to the study

since the construction of the high way, the town of Mamfe have witnessed rapid urbanization which has come along with normal urban challenges.

Most importantly, increase in crime wave (31 %) has been the order of the day in the town of Mamfe especially around moto parks. This has resulted fear and uncertainty in the area. Field investigations revealed that the high rates of crime rates is related to weak security measures in the area. Key informants outlined that the socio-economic crises in the Anglophone regions of Cameroon have been at the origin and has also fan the flames of such crime in the area. According to a uniform officer interviewed in the town of Mamfe, he confirmed to the study the rate of crime has increased in the town especially after the construction of the high way in 2011. However, it was pointed out measures are put in place to curb such criminal activities.

Urbanisation, as argued earlier, results in a rapid increase in the population density of a given area which creates security challenges. Jiboye, (2011a) argues that the rate of crime in Nigerian cities can be associated with the exploded growth in these places with juvenile delinquent youth and adults, poverty, and unemployment (Jiboye, 2011a; Jiboye, 2011b). NUDP (2012) in a report linked the increase in crime rate to the rising youth unemployment, gradual decline of traditional social values, breakdown of family cohesiveness and community spirit. These ensuing security challenges reduce the willingness for investment in these urban centres. The presence of an unsafe and high crime rate environment reduces the eagerness of investors to pour resources into the society.

Water challenges too has been alarming in Mamfe town where most of the local taps that were found stopped following with little or no repairs. However, this represents only 17 % of the urban challenges faced in the town of Mamfe. This is probably because of the availability of other water sources such bore holes, and pressure pumps which has provided water in some communities. Investigations revealed that much efforts are being done to carry out water supply.

Rapid urbanization is usually accompanied by poor or unsustainable housing which has resulted uncontrolled 13 % reduction in agricultural land while reduction in agricultural land represents 16 % of the respondents. In 2014, for example Nigeria reached its highest peak of housing deficiency of over 17 million (Afolayan, 2017). This deficiency according to is exacerbated by the lack of investment in housing market and the incapacity of traditional

housing development practices. Sanusi (2003) also argues that the high bureaucracy and interest rates have stifled the rate of development of the housing system and restricted its growth. These shortages have caused the housing system to fall into a dilapidated state leading research like Adewale (2005) who described the housing standards as very poor, due to factors like overcrowding, poor substandard building materials and inadequacy of infrastructural provision like roads, drainages and other supporting facilities.

Over 75 per cent of this housing within urban areas is substandard and located in slums and this paves the way for crime, poor sanitary conditions, poverty, gentrification, and lack of basic facilities amongst others (Oluwatayo and Opoko, 2014). Lack of adequate housing has increased the cost of housing in neighbourhoods that have better security and basic infrastructures. This leaves the rent in estates and city centres to rise to exorbitant rates while the cost of purchasing land and the acquiring of the needed permits in order for individuals to build on, is also 43 exuberant. As a result these, Abuja city (and other metropolis in Nigeria) is plagued with an increase in the cases of homelessness with many opting to live in slums where poor materials are used for temporary constructions, live in abandoned buildings or sleep under bridges and other public spaces.

The collapse of houses is another issue, resultant of the rise in urbanisation (NUDP, 2012). Furthermore, the increased challenges in construction and the costs of labour, and materials have led to an increase in the number of poorly constructed building. This has resulted in an increased number of building collapse. Ede (2013) notes that "the cost of these failures in terms of human lives and enormous economic waste, loss of investments, job, income, etc., cannot be over emphasized". These failures also occur due to the unexpected stress from usage these structures experience. With the lack of adequate projection on the growth of these urban centre, the development of public and private buildings are sometimes not intended for the stress that is bestowed on them, leading to their unfortunate collapse.

This is explained by the fact that most at times urbanization is usually accompanied by urban sprawl leading to reduction in agro-pastoral land. These results were confirmed during interviews and key informants from the field.

The report presented by the United Nations Human Settlement Programme on the state of African cities published in 2008, indicated that cases of serious urban sprawl and emergence of urban corridors exist in many parts of some cities in Africa (UN-HABITAT,

2008; NUDP, 2012). The increased population in the urban centres and the consequent reduction of population in these rural communities leads to a further reduction of the already scarce resource allocation. This therefore plunges them further into the circle of underdevelopment which creates the push factors that perpetuates the migration and also the pull factors that attracts economic development. These push factors of rural populations include circumstances that prevents the populace from earning decent livelihoods. This includes land deterioration, lack of adequate land, unequal land distribution, droughts, poor health systems, extreme poverty and religious conflict. Local economic declines are key push issues for moving to urban centres as well, while pull factors tend to inspire this rural population to move to urban centres for lifestyle reasons (Gugler, 1997).

This trend of urbanisation that has fostered the continuation of rural urban migration, has lingered on into the 21st century. As Nigeria's population continues to increase at a rate of 2.67% (Trading Economics, 2016), it has also influenced rapid urban population growth. Such growth, however, has not been followed by adequate infrastructural development, planning or management of both the urban and rural centres. This has essentially resulted in the deterioration of the standard of living in these cities (Ogun, 2010). This case of rapid urbanisation with inequivalent development of infrastructure has propagated many challenges for urbanisation in Nigeria. These challenges include are further exacerbated by a concentration of resources and development in the urban centres, continual migration of resources from rural areas to urban centres, a lack of adequate long term planning for the development of cities and rural areas, and a lack of continuity in the planning and implementation process.

Generally, urbanization though accompanied by a series of challenges benefits many via increase production, higher level and availability of skill required to provide the necessary services for a good and prosperous life. The primary benefit of urbanisation is the economic value. The combination of diverse people, their idea and experiences, make urban centres a whirlpool of economic activities and industrialization. The increased population and their proximity makes room for economics of scale, higher wages, foster an innovative environment and allows for the development complex systems. Though these benefits could be gotten from urbanization, the research has also shown that the propensities for many issues to arise are high. It is always however very important to check these challenges and curb them to have sustainable cities.

1.5 Conclusion

The construction of the Mamfe-Bamenda high way in the year 2011 contributed imensly to the socio-economic development of the Mamfe Sub –division via rapid urbanisation rate whuich was accompanied by the expansion of the health sector, opening up of schools, increase in trade facilities and transportation services which contributed to the development of the area. Furthermore, the rapid rate of urbanisation have not been without problems as a myriad of urban challenges are being felt in the town of Mamfe resulting all from the constructionof the high way road. Some of the examples of such crimes indentified in the Mamfe town include, crime wave, water shortages, population and a host of others which needs to be contained to ensure sustainable cities and socio-economic development of the Mamfe Sub-division and beyond. It was in this light that this study further investigated into how the construction of the high way contributed in trans-border trade between Cameroon and Nigeria and within the Sub-division itself. Chapter two of this study therefore handles how the construction of the high way has promoted trade and commerce in Mamfe town and the Sub-division as a whole.

CHAPTER 2

THE ROLE OF THE MAMFE-BAMENDA HIGH-WAY IN THE PROMOTION OF TRADE AND MOBILITY IN MAMFE TOWN

2.0 Introduction

The town of Mamfe in Manyu Division used to be an important socio-economic and political hub in former British Southern Cameroons, and the then West Cameroon geo-politics. Shortly after independence and reunification, it became noticeably clear that the town had switched from relative to absolute decline. This was so because the economic capital of the territory at the time had moved east from Lagos to Douala. Its derelict social infrastructure and road network that ensued from its absolute decline contributed in plunging the town and the entire Division into inaccessibility and enclavement. The tarring of the Cameroon section of the Lagos-Mombasa Trans African HighWay (TAHW) came as a long awaited relief to the Manyu people. It opened up not only this region and the backside of this part of the country, but revamped and restored the lost glory Mamfe town once enjoyed.

This chapter sets out to investigate the extent to which the construction of the Bamenda-Mamfe high way has promoted trade and mobility in the Mamfe Sub-division and Manyu Division in general.

2.1 High ways and development of trade and commerce

Transport is a vital asset to a country's development. Africa has set up programmes to dis-enclave communities in order to trigger country development and progress especially trade. Many countries and economic development blocs initiate actions for the construction of major transport highways in order to accomplish the broad base objective for the infrastructural development of Africa(Kah and Bate, 2020).Cameroon that hosts two of these Trans-African highways (Lagos-Mombasa and Tripoli-Windhoek (Capetown) also witnessed most of its sections not tarred until recently.

The Bamenda-Ekok section via Mamfe (179 km) earmarked in the 1990s as part of the Lagos-Mombasa TAHW remained untarred until 2010. This greatly impeded the economic spring up for the town of Mamfe, its dependent settlements and across the border with Nigeria. To construct the Bamenda-Mamfe road in Cameroon was to de-block the impasse created at reunification with Cameroon and thus re-boost the lost commercial and

economic linkages Mamfe long enjoyed with Nigeria. The lack of a permanent motorable way from Mamfe to Nigeria and to the rest of Cameroon prior to the construction of the Bamenda-Mamfe road restrained socio-economic activities at the borders.

This strengthened dealings with both the Naira and the FCFA. The construction of the Bamenda-Mamfe road from Bamenda via Mamfe to across the border to Nigeria has brought back Mamfe town to once more an economic hub thereby boosting economic ties between Cameroon and Nigeria. This has gone a long way to enhance trade and commerce especially in the town of Mamfe. This seeks to explain why this study took the initiative to investigate how effectively the high way project has favoured or contributed to the development of trade and commerce in the Mamfe town. According to the survey instrument, it was noted to construction of the Bamenda-Mamfe road has contributed to trade development as earlier noted

According to figure 9, it shows that the construction of the Mamfe-Bamenda high way has greatly contributed to the development of trade in the town of Mamfe and the Sub-division in general. According to respondents' views, 62% ascertained that the construction of the road has actually contributed to the development of trade in the town of Mamfe against 15 % who were of the opinion that the construction of the high way has not done much regarding trade and development in Mamfe town. This is probably because these respondents are not into any form of trade and commerce or have not been in the Sub-division for a long time to perceive the developments brought about by the road networks which transends via Mamfe town. Similarly, 23 % of the respondents were neutral as to whether the construction of the high way has contributed to enhancement of the trade or not. These were probably strangers who happened to answer our questionnaire. However, the fact was established that that construction of the high way has greatly contributed to the enhancement of trade and commerce in the Sub-division.

2.2 The different dimensions of trade enhance by the High way

The construction of the Mamfe-Bamenda high way has influenced or contributed to the development of trade and commerce in the town of Mamfe. This has been effectuated in different ways. This explains why it was important for the study to actually investigate the dimensions in which the construction of this road has contributed to the development of trade and commerce in the Sub-division. According to the survey instrument, a range of ways

through which the high way has contributed to the development of trade were highlighted and categorized (Table 9).

Table 9: Respondents views on dimensions of trade development in Memfe town

Localities	N/Eff. Res.	What are some jobs created here in Mamfe resulting from the construction of high way?			
		Transportation of trade articles	Accessibility	Expansion of markets	Exportation and imports of goods
Mamfe town	8	2	3	1	2
Banso quarter	15	6	3	2	4
Hausa quarter	13	7	4	0	2
Main street	23	13	7	0	3
Nchang	18	9	4	3	2
Mile one	19	11	3	2	3
Eshobi	14	4	7	3	0
Total	110	53	30	11	16
%	70	47	28	11.5	15.5

Source: Field work, 2021

According to table 9, it reveals that the construction of the Bamenda-Mamfe high way has contributed to enhance trade and commerce in diverse ways. It illustrates that transportation services especially trade articles has contributed to the enhancement of trade (47 %). This is because goods are now easily being transported from one place to another from Nigeria to Mamfe and within the Sub-division itself given the construction of other secondary roads to complement the main high way. On a daily bases, trucks are seen plying the road the high way with goods of various sorts. This has gone and extra mile to enhance trade and commerce in the Sun-division.

Photo 3: Transportation services on the Mamfe-Bamenda high way

Source: Enow, 17/09/2021

Photo 3 shows vehicles along the Mamfe-Bamenda high way transporting goods mostly trade articles into the Mamfe town and beyond. Interviews conducted with some traders identified in the town of Mamfe pointed out that there has been a lot of circulation of goods along the Mamfe-Bamemda high way mostly trade aricles and traders who buy their goods and sell in the town of Mamfe and far.

The construction of the high way has also granted lots of accessibility to the town of Mamfe (28%). This is as a result of the construction of the high way and other secondary roads that has been constructed linking the main high way road. This has aided traders in that they now have the accessibility to bring to goods to the main markets and sell at very cheap transport cost. According to interviews conducted in the town of Mamfe with the lord mayor of the Mamfe council, it was pointed out that traders can now easily came to the town of Mamfe and sell their goods because of the construction of the high way which has given accessibility to many neighborhoods. It was further outlined that traders came with their goods from distant places to sell in the town of Mamfe. This has gone an extra mile to promote trade and commerce in Mamfe which is worth applauding for. This has positively impacted the socio-economic lives of the people and increased their living standards.

Furthermore, there has been an expansion in the local markets in the Mamfe Sub-division as a whole (11.5%). This is because those doing trade and commerce in this Sub-division can buy from Nigeria and sell in Mamfe town and beyond (Photo 5).

Photo 4: a partial view of mamfe main market

Source: Enow, 17/09/2021

Also, Nigerians comes and also buy certain goods in the town of Mamfe back to Nigeria via this high way. Markets have therefore been expanded because of trade transaction going beyond Mamfe to other places or towns either to buy or sell goods as illustrated in photo 4. This has influenced the exportation of goods in and out of the town of Mamfe (15.5%). This has promoted externalization of trade not only in Manyu Division but the whole of the South West Region of Cameroon. Some traders interviewed in the town of Mamfe confirmed to the study that since the road was tarred, they have been able to buy from Nigeria much goods which has increased the scope of their markets. It was on this basis that it became important to investigate how the construction of the Mamfe-Bamenda high way has actually influence cross-border trade in the Mamfe Sub-division.

2.3 The setting up of several business in Mamfe town

To demonstrate the economic twist due to the advent of the Bamenda-Mamfe road , many economic establishments in Cameroon now consider Mamfe a potential market centre. For example, CONGELCAM, the main dealer in frozen fish in the country opened a branch in the town of Mamfe in 2015 (Photo 5).

Photo 5: CONGELCAM building in Mamfe town

Source: Rita, 12/11/2021

This has not only facilitated the acquisition of fresh fish at all times, but has spurred other related fish businesses such as the roasting of fresh fish around bars, snacks, off-licenses and nightclubs that have cropped up to handle the teeming population, a phenomenon that never existed before.

CONGELCAM has led to the phenomenon of fish retailers who supply to surrounding villages at all times. These villages hitherto depended on fish from the rivers, which was seasonal, and on the ability to catch. Most of the villages such as Kembong, Afab, Besonabang Ossing, Afap have developed hotspots where most young girls (80% of them not from Manyu Division but from the Bassa tribe in the Littoral Region of Cameroon) employ themselves in roasting fish near the bars.

Again, many depots have seen the light of day in Mamfe. Here we are talking of Brazzerries du Cameroun and Guinness Cameroon SA both being the main beer brewing companies, cement such as CIMENCAM and of recent DANGOTE Cement SA, warehouses especially on basic necessities such as sugar, salt, maggi cubes, milk, soja oil, bread matches, etc. and hardware stores for building materials. Either from Kumba or from Bamenda, the good roads make it in such a way that these depots benefit from regular supplies. Retail shops have sprung up within the town of Mamfe and in surrounding villages where they get constant supplies from the depots, which boost the economic transactions in the whole Division. With flour in the depots, bakeries have seen the light of day that even supply bread

across the border to Nigeria (Tranche, 2018).These has all contributed enormously to the socio-economic development of the Sub-division and the entire Division as a whole. This has accelerated cross-border trade with the neighboring Nigeria.

2.4 The construction of the high way and influence on cross-border trade

When the oil boom brought Nigerian agriculture to its knees before 1981, Cameroon was the breadbasket to Nigeria and other central African countries. The food deficit later pushed many Nigerians to embark aggressively on agriculture in a bid to meet up with the ever-growing demand for food. From 1980 to 1990, i.e. before the oil boom that crumbled agriculture, many women from Manyu Division, Douala, Nkongsamba, Bafoussam and other areas in Cameroon often crossed over to Nigeria through Ekok to buy foodstuff such as yams, maize, groundnuts, palm oil, tomatoes etc. Major producing areas in Nigeria that were closer to the Cameroon border included Ikom and Ikang. However, the problem of farm to market roads coupled with the poor state of the Bamenda-Mamfe road at the time did not render the business for foodstuff profitable. This business often went dead during the rainy season, as it was not easy to transport the foodstuff to Cameroon, thus creating artificial scarcity in the markets (Achankeng, 1984). With the Nigerian oil boom, it became a reverse situation which can be termed pendulum cross border trade between Cameroon and Nigeria, wherein at one moment truckloads of a particular good cross from Nigerian to Cameroon and at another moment truckloads of that same good cross from Cameroon into Nigeria. According to field surveys, it was noticed that cross-border trade was very common among traders dealing in Mamfe town (Figure 14).

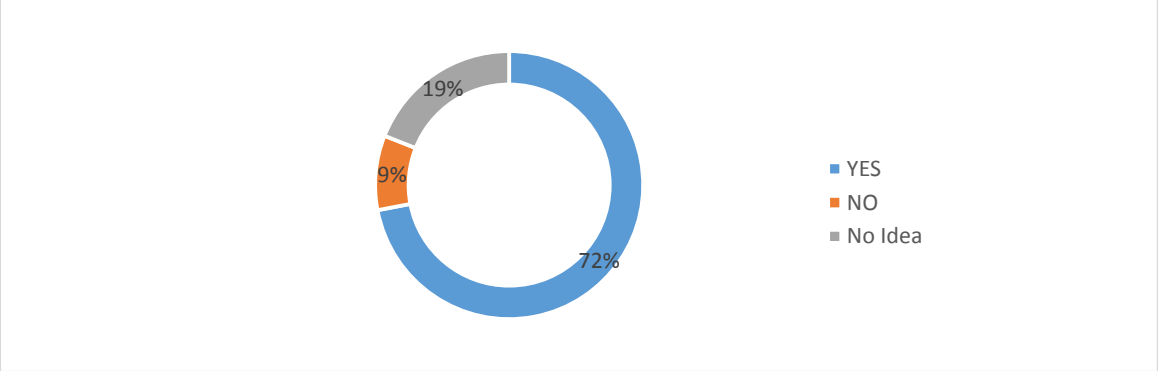


Figure 14: Respondents perceptions on cross-border trade in Mamfe central

Source: Field work, 2021

According to figure 15, it reveals that 72 % of the respondents were of the view that the construction of the Bamenda-Mamfe high way has greatly contributed in cross-border

trade which was not the case before the construction of the road. As illustrated in photo 5, it was observed during field surveys that a myriad of truck were transporting goods along the high way to different destinations. Small vehicles too ply the road with trade articles from neighboring Nigeria. Only 9 % of the respondents had a contrary perception as concerns cross-border trade with Nigerians while 19 % were not aware or had any idea on the trade transaction along this high way.

Sources at the Ekok customs office revealed that, the importation of foodstuff from Nigeria to Cameroon increased from 149.88 tonnes in 2008 to 313.53 tonnes in 2009 giving an increase of 163,65 tonnes. Reason advanced to this was the poor state of the Bamenda-Mamfe road, which was untarred at the time coupled with poor feeder roads that linked to it. Thus, Mamfe town in particular and Manyu Division in general greatly benefited on cross-border trade with the commencement of work on the Bamenda-Mamfe road in 2010. According to the survey instrument, most of the respondents answered-yes to the fact that cross-border trade in Mamfe has increased as a result of the construction of the high way and that it has also greatly contributed to the enhancement of livelihood of most of the inhabitants.

Table 10: Respondent views on cross-border trade and livelihood enhancement in Mamfe Sub-division

Localities	N/Eff. Res.	Have cross-border trade improved since the construction of the high way here Mamfe?		What has been the impact on the socio-economic lives of the people in Mamfe?		
		YES	NO	Increase/SL	Trade Exp.	Others
Mamfe town	8	6	2	3	4	1
Banso quarter	15	14	1	3	9	3
Hausa quarter	13	13	0	6	7	0
Main street	23	19	4	4	17	2
Nchang	18	18	0	8	8	2
Mile one	19	18	1	9	7	3
Eshobi	14	13	1	5	7	2
Total	110	101	9	38	59	13
%	70	91.8	8.2	34.5	53.5	11.8

Source: Field work, 2021

According to table 10, it shows that 91.8 % of the respondents were of the opinion that the construction of the said high way has greatly contributed to the enhancement and promotion of trade cross-border trade between Cameroon and Nigeria basically Mamfe and Ekok. Interviews in line with this perception pointed out similar views and avouched that a variety of goods are now circulating in the Sub-division from neighbouring Nigeria. Only 8.2% of the respondents had a contrary view in line with cross-border trade development in the area as a result of the construction of the high way.

In another dimension, the trade has gone a long way to contribute to the socio-economic lives of the people of the Mamfe Sub-division and even beyond. From the respondents' perception, there has been an increase in the standards of living due to trade development (34.5%) since people can now consumed a variety of goods and also easily their goods. Interviews and field informants reliably informed the study that incomes of most traders have increase in Mamfe because of the cross-border trade development coming because of the construction of the high way. There has also been and expansion of trade (35.5%). This is because traders are able to export some of their articles and sell in far way markets. More so, they have been able to increase the scope of their sells and goods since there is a ready market for their goods. In an interview with a cross-border trader, it was underlined that

The construction of the high way through Mamfe here has actually opened up trade avenues for us the traders because we can now easily take goods from here to sell in neigbouring Nigeria and also buy there and sell here….before the construction of the road, it was very difficult but now everything is just very easy ……

Other elements of socio-economic development (11.8 %) ignited by the trade include; improved health conditions, improvement in the accessibility to social facilities and a host of others which has gone a long way to improve livelihoods in general. The ADB value added in financing this operation is knowledge of the South-West Region of Cameroon. For over 15 years, the Bank's transport sector interventions have largely concentrated on this region. The Bank financed the development of sections of the Bamendap-Batibo, Bachuo Akagbe-Mamfe and Melong-Dschang roads under the road programme (1991-2002), as well as the Numba-Bachuo-Ajkagbe road (2006-2012) and the multinational Bamenda-Mamfe-Enugu corridor still under construction. This new operation will enable the Bank to consolidate the gains of previous projects and meet the objectives of the country's infrastructure development strategy (ADB, 2012). Further, this project will support the implementation of the youth employment initiative in the construction sector by training youth groups in labourintensive techniques

and organizing "worksite schools" with the technical assistance of the International Labour Office (ILO).It was important investigate the type of goods coming into the Mamfe town. It was realized that illicit trade is mutely being practiced were so m any people bring in contraband goods into the town of Mamfe.

2.5 The circulation of illicit goods in the town of Mamfe

It is very difficult if not impossible for a cross-border trade of the nature of the one practiced between Mamfe and neigbouring Nigeria to go without the circulation of illicit goods in the pathways. This therefore explain the reason why it was imperative for this study to investigate whether such conditions prevail in the Mamfe area. According to key informants in the field, it was made to understand that most goods are being smuggled from Nigeria from Nigeria to Cameroon through cross-border trade. The survey instrument was used to gather some data to this effect (Figure 15).

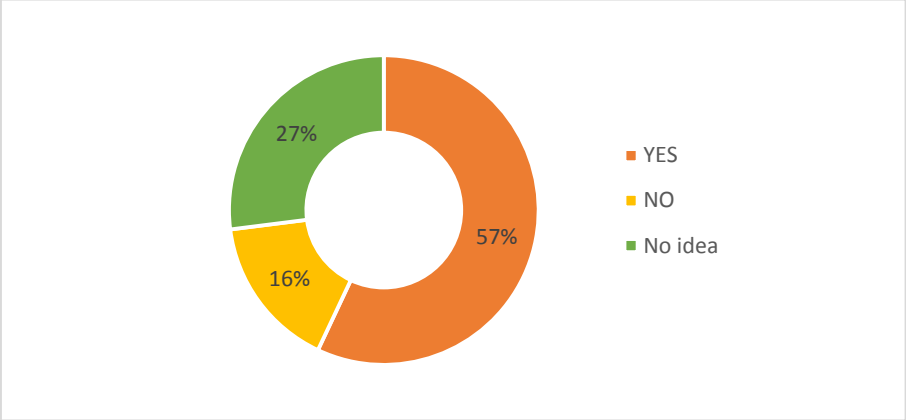


Figure 15: Respondents views on the circulation of illicit goods in the Mamfe town from neighbouring Nigeria

Source; Field work, 2021

According to figure 16, it shows that 57 % of the respondents were of the view that they have noticed the circulation of illicit goods from Nigeria in Mamfe town. Interviews with some field informants pointed out that most of the illicit goods are even sold illicitly and are also transported illicitly into the town of Mamfe. Only 16 % of the respondents answered-No that there is no circulkation of illicit goods in the town of Mamfe. This probably because they have not been able to notice or they might be new in town. This this couple coupled with those who did not have any idea on illicit goods circulation if the area (27 %). However, the study was reliably informed that these goods more in much hidden paths which are very difficult to be identified. The study also found out that some of the goods are legal goods but

being sold in illegally while some of the goods are illegal and being in illegal ways. It was important therefore to identify some of the illegal goods in the town of Mamfe (Table 11).

Table 11: The different types of illicit goods transported into Mamfe town from neighbouring Nigeria

Localities	N/Eff. Res.	What are some of the illicit goods circulating here in Mamfe from neighbouring Nigeria?			
		Petroleum products	Pharmaceutical products	Brewages & foods stuffs	Others
Mamfe town	8	2	3	1	2
Banso quarter	15	6	3	2	4
Hausa quarter	13	7	4	0	2
Main street	23	13	7	0	3
Nchang	18	9	4	3	2
Mile one	19	11	3	2	3
Eshobi	14	4	7	3	0
Total	110	53	30	11	16
%	70	47	28	11.5	15.5

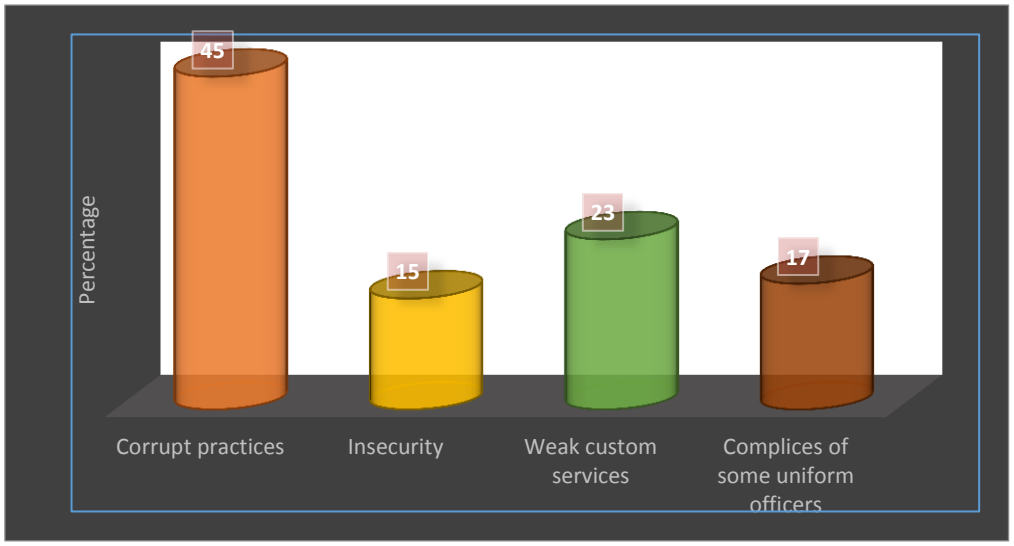
Source: Field work, 2021

According to table 11, it shows that 47 % of the illicit goods circulating in the Mamfe town is illicit petrol imported from neighbouring Nigeria. This illegal fuel here is usually refered to as *Funge* fuel which is of very low quality. Informant from custom officials in Mamfe town indicated hundreds of barrels of such illicit fuel is being seized from the dealers on a daily basis but the situation continue to persist because of much irregularities which is examine in the next section of this chapter. This illicit fuel is being followed by pharmaceutical products such as drugs still from Nigeria (28 %). Key informants and interviews confirmed to the study that there is a lot of infiltration of such goods into the Sub-following the construction of the high way via Mamfe.

More so, bravages and food stuffs such as can drinks and other processed foods which are in poor state or less quality are very common in Mamfe town from neigbouring Nigeria. Others represented 15.5 % of illicit goods circulating in the town of Mamfe from Nigeria particularly from Ekok. It was therefore imperative to investigate the reasons for persistency of such illegal activities and actions understand by state authorities to contain such activities.

2.6 Reasons for the persistent flow of illegal goods from neigbouring Nigeria to Mamfe in Manyuy Division

Despite actions undertakenby state authorities, the flow of such illicit goods continue to infiltrate the Mamfe town. The survey instrument used to collect data identified and categorized (Figure 16).



Source; Field work, 2021

Figure 16: Some reasons for the continuous flow of illicit goods into Mamfe town

According to figure 17, it shows that corrupt practices are responsible perpetrated by some custom offices and other uniform men represent 45 % which of course is the highest reasons why illicit goods keeps on circulating in this part of the country. Interviews with some custom officials in Mamfe town did not hide their emotions to what some of their colleagues are doing when it concerns controls at tall gets. The recent socio-political crises in the Anglophone regions of Cameroon has also gone a long way to ignite the circulation of such goods because of insecurity (15 %). This is because security measures have become very weak giving an advantage to illicit traders to infiltrate goods via this high way.

Weak custom services (23%) was noted to be another factor responsible for the circulation of such illicit goods. In some areas along the high way where customs were supposed to be present are absent partly because of the insecurity reigning in the area. This has given a green light to illicit traders to operate and infiltrate illegal goods into the town to sell illegally. It was earmarked by field informants that some unidentified uniform men are responsible for accomplices (17%) for the circulation of such illegal goods. Polices put in place to contain such illicit activities have not been yielding enough fruits.

2.6.1 Measures put in place to contain the circulation of such goods

According to information gathered from the custom unit in Mamfe town and some police officers, a myriad of measures have been put in place but very little is being done to follow up and to see that all illicit goods are being tracked from circulating in the town of Mamfe. Some of the measures as pointed out included; increase in custom services along the high way leading to Mamfe town, more check points along the way to ensure that only legal goods comes into the town from Nigeria especially fuel and others, however, it was explained to the study by the custom unit in Mamfe that it continues to be very difficult to fight against the flow of illegal goods in the Sub-division. However, the construction of the high way though with the flow of illicit goods have gone a long way to enhance mobility in the Sub-division, Division and the entire South West Region of the Cameroon.

2.6.2 Improved Internal and External Population Mobility

Internal mobility in Manyu Division involves the displacement of people on relatively short distances such as from one subdivision to the other, from one village to the other or from one compound to the other in the same village. However, the tendency is that they remain within a familiar cultural environment and therefore have few problems of adjustment to language, social customs, ideology and institutions. Though the constraints to internal migration include low incomes, family wrangling, settling of scores and deplorable road infrastructural network, the construction of the Bamenda-Mamfe road has mitigated these constrains and further boosted the propensity to mobility from one place to the other. This is simply because transport fares, especially along the Bamenda-mamfe road dropped tremendously with no seasonal variation as was the case before (Ngwa, 1997).

Before the construction of the Bamenda-Mamfe road, Manyu Division in general and Mamfe in particular appeared more as an island, as movements of goods and people were too limited. During the rainy season, trade between the adjacent rural communities with Mamfe town and across to Nigerian was near inexistent. Table 3 reveals a wide disparity of transport fares from one season to the other in displacing within or without the division. The deplorable nature of the road network at the time, coupled with the inaccessibility of some places triggered a hike in transport fares during the rainy season as opposed to the dry season. This discouraged many people from travelling and from trading (Teravaninthorn & Raballand, 2009).

The construction of the Bamenda-Mamfe road has opened up this area to various socio-economic opportunities as many transport agencies have opened up agencies in Mamfe town. These include agencies such as MOGHAMO, VATICAN, MONDIAL, GOLDEN and MUSANGO bringing buses with 70 seats capacity for inter-urban transportation. Due to the tremendous increase in passengers, these travelling agencies operate at same and different itineries as illustrated by Table 4 and Figure 2. Furthermore, the tarring of the Mamfe-Bamendaroad came along with the setting up of public and private building infrastructures for collective and private purposes.

The flux of passengers has more than doubled with the tarring of the Bamenda-Mamfe road through Mamfe. Now people have to travel in and out of Manyu Division conveniently and at cheaper transport fares. ALIBABA Express that was the lone agency before the tar has marked the Manyu man. Though this agency operated with mini buses (14 seater, 18 seater and 30 seater buses), it did not lose its clients to new arrivals. When tar arrived, coupled with the arrival of other travelling agencies with more comfortable buses of higher capacities (53 seater, 60 seater and 70 seater buses), this only solved the problem of increased flux of passengers. Most of the local population remained glued to the agency that cooperated with them during the difficult days. It is for this reason that ALIBABA Express still top the list in the number of passengers transported per day to and from Mamfe as seen in Table 4. Being its major line from creation, this travelling agency has won the hearts of the Manyu man as both are manifesting mutual trust (O'Kelly, 1998).

This increased mobility of people is for various reasons. Firstly, it is for religious purposes, as Mamfe town in particular has of late become a centre for religious activities due to its geographical location. Church and ecumenical services have been organised there to pray for peace for both Nigeria and Cameroon. Christians congregate there on annual basis coming from cities such as Bamenda, Kumba, Douala, Yaounde etc. on the side of Cameroon and from Ikom, Calabar, Onitsha, Lagos, Enugu, Jos, Ibandan etc. on the side of Nigeria. These prayers that hold at the town's Ground Stand, mostly centre on the outbreak of the Ebola disease in DR Congo and the Boko Haram threats in the north that affects Nigeria and Cameroon. This brings together many religious leaders of different denominations, which include the Pentecostants, Protestants and Roman Catholics (Donaldson, Jinhage, & Verhoogen, 2017).

Furthermore, Mamfe has also become a transit town for Christians on pilgrimage for religious purposes to and from Nigeria. Noteworthy is that Nigeria of late has become famous

in organising Divine Healing Services, which attract Christians from all over the world. The tarring of the TAHW makes Mamfe the easiest transit corridor from Cameroon to Nigeria thus giving a facelift of the town in handling a higher influx of religious pilgrims (Cupers & Meier, 2020).

2.7 Conclusion

As earlier noted, *where a road passes, development follows* the construction of the Bamenda-Mamfe road that passes through Mamfe came with lots of socio-economic development that most importantly, the development of both internal and external trade in Mamfe Sub-division. The trade has gone a long way to enhance the social and economic lives of the people of Mamfe town. This is largely perceived via trade expansion, increase in the scope of the market and the sale of a variety of goods and services. Unfortunately, the external trade here has led to the circulation of illicit goods such as fuel, pharmaceutical products and a host of others. Notwithstanding, the construction of the Bamenda-Mamfe has promoted mobility in the town of Mamfe and beyond which has seen the implantation of several traveling agencies in the town of Mamfe. It was against this that this study further went ahead to investigate the challenges faced by users of the TAHW. This therefore gave birth to chapter 3 of this study.

CHAPTER 3

CHALLENGES CONFRONTING THE MAMFE-BAMENDA HIGH WAY ROAD USERS

3.0 Introduction

The project seeks to improve the level of service of the Kumba-Mamfe Road (NR8), which is an extension of the multinational Bamenda-Mamfe-Ekok-Nigeria border Corridor under constructed with Bank financing. The project road works cover a linear distance of 150.87 km (ADB, 2012). The project also comprises related works concerning the development of rural roads, rehabilitation of socio-economic infrastructure, and promotion of youth employment. The expected outcome is the overall reduction of transport costs in this region which has a high agricultural potential. The direct beneficiaries of the project are the 1,384,286 inhabitants of the three divisions of the South West Region, while the people of Nigeria's eastern States will benefit from the project indirectly, given its regional nature. The beneficiary population will contribute to the construction, management and maintenance of some related infrastructure (ADB, 2012).Many obstacles however stand as stumbling blocks forthe users of the Bamenda-Mamfe road to adequately contribute to the socio-economic development of Mamfe town. These challenges range from administrative, communication and socio-economic. They try to cope with these challenges by adopting a series of strategies which will make an integral part of this chapter.

3.1 The dimensions of the challenges faced by Mamfe-Bamenda road users in Mamfe

As earlier stated, the Bamenda-Mamfe road users in Mamfe are confronted with a wide range of challenges. These setbacks range from socio-economic, communication to administrative which goes an extra mile to bog down the ability of the Bamenda-Mamfe road to contribute to the socio-economic development of the Mamfe town. These road users include; drivers at trans-national level and local drivers (table 12).

Table 12: The various dimension of the challenges confronting the Bamenda-Mamfe road users in Mamfe

Localities	N/Eff. Res.	What are some of the challenges faced by the Bamenda-Mamfe road users here in Mamfe?			
		Communication	Administrative	Economic	Social
Mamfe town	8	3	2	2	1
Banso quarter	15	3	6	4	2
Hausa quarter	13	7	4	0	2
Main street	23	7	13	3	0
Nchang	18	6	7	3	2
Mile one	19	4	11	2	3
Eshobi	14	4	7	3	0
Total	110	34	50	17	10
%	70	30	45.5	15.5	9

Source: Field work, 2021

Table 12 depicts the different grouped challenges confronted by the Mamfe-Bamenda road users in Mamfe Sub-division particularly in the town of Mamfe. From this table, it is seen that 30 % of the Bamenda-Mamfe road users are facing communication related challenges which is explained by the poor nature of some sections of the Bamenda-Mamfe roads in the Sub-division amongst these challenges, communication setbacks stand out to be the second highest problems confronted by the Bamenda-Mamfe road users in Mamfe town. Administrative challenges represents the highest with a response score of 45.5 % while social and economic challenges represents 9 % and 15.5 % respectively. These challenges are further diagnosed individually and treated to better apprehend how they manifest and how Bamenda-Mamfe road users go about them.

3.2 Communication challenges confronted by the Mamfe-Bamenda road users

It is but a truism that the execution of the Bamenda-Mamfe road linking Bamenda-Mamfe-Ekok also involved the construction of some secondary roads which were latter exploiuted by the local councils and expanded them to give accessibility especially to enclave areas. It was observed that most network roads in Mamfe town were bad especially those linking the Bamenda-Mamfe road. This has gone a long way to limit the efficiency and effectiveness of circulation in the town of Mamfe. These Bamenda-Mamfe road users alsoexplained that the reason for frequent accidents in the Sub-division is attributed to the

poor state of roads. Key informants during field investigation underlined that most of the roads are seasonal except for the tared road that links Bamenda to Mamfe town. The 40% of respondents who did not see any problem with the nature of roads in the Sub-division were of the view that motorbikes can go through every foot track once it exist and that the flexibility of motorbikes do not necessarily need motorways. However, the study found out from key informants that motorbike riders who do not see any problem on the nature of roads are mostly those who circulates in around Mamfe town where the nature of roads are not totally bad.

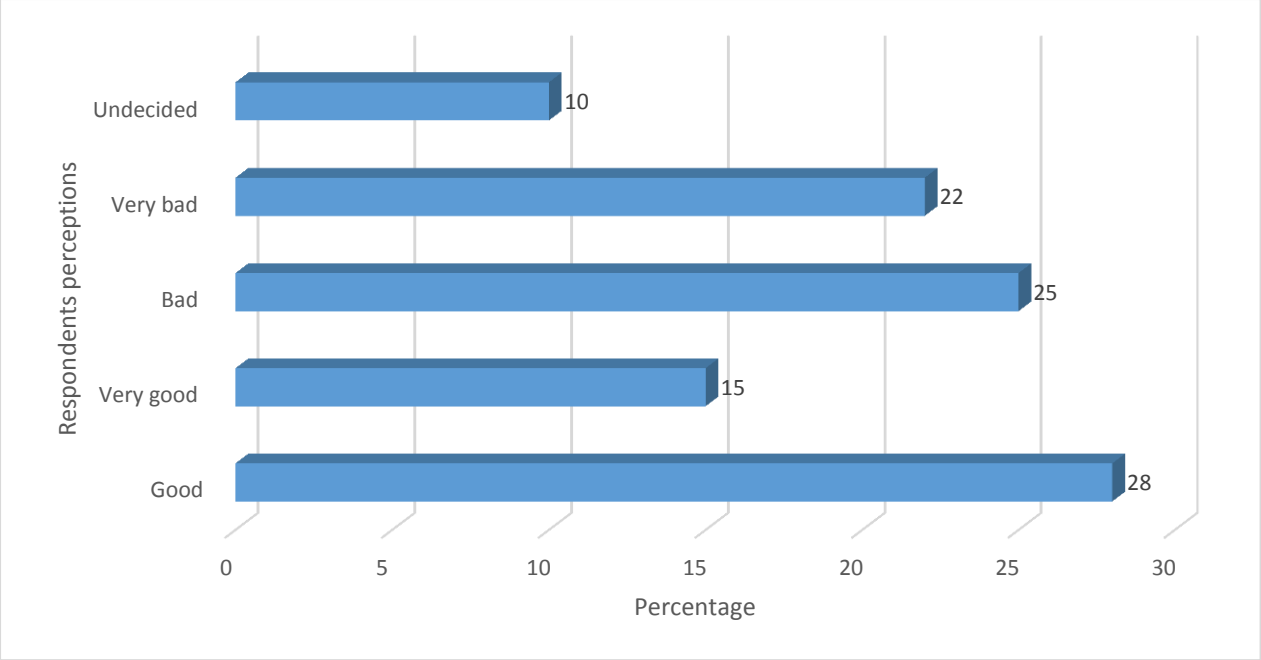
According to field observations, it was observed that most roads are very poor during the rainy season and equally very dusty during the dry season. During the rainy season, the situation is even worse due to the numerous potholes on the roads created by overland flow given the heavy amounts of rainfall in the Sub-division averaging 2400mm per year (MCDP, 2012). The poor state of roads has limited most users in accessing certain areas in the Sub-division even around the town of Mamfe. More so, the high way itself was noticed to contain potholes in some section which continue to widen especially during the raining season (Plate 2).

Plate 2: Some degraded sections of theBamenda-Mamfe road in Mamfe Sub-division

Source: Photos by Enow, 13/11/2021

Photo 7 A shows how tare has degraded in the some sections of the high way while photo 8 B shows how the road has generally degraded and seems to have been affected by rill erosion with all the tare broken off. Photo 9 C illustrates a pothole in the middle of the road where waters usually runs through especially during the rainy season while Dshows a bare surface without any tare there again.

Interviews conducted with those frequently using the Bamenda-Mamfe road in Mamfe ascertained that some parts of the road are gradually degrading and needs to be maintained and rehabilitated. It was important to get some responses from respondents on the state of the Bamenda-Mamfe road in Mamfe town (Figure 18).



Source; Field work, 2021

Figure 17: Respondent views on the state of the Mamfe-Bamenda road in Mamfe

According to figure 17, it reveals that the respondents were of the view that the state of the Bamenda-Mamfe read was good (28 %) which happens to be the highest in the response scores. This is because the road is still somehow good without much degradation. The options for the Bamemda-Mamfe road being very good represented only 15 % which means that the road obviously is facing a series of challenges at the level of maintenance and rehabilitation. The response score for the Bamenda-Mamfe road being bad was rated up to 25 % while 22 % perceived the road to be very bad. However, 10 % of the respondents were undecisive as to wheather the state of the Bamenda-Mamfe road is good or bad. Taking a closer look at the state of the road, it can be affirmed that generally the state of the high way has issues which impedes communication and vehicles plying the road which needs attention. However, some sections of the road were identified to be very good (Photo 9).

Source: Enow, 17/09/2021

Photo 6: The state of the Bamenda-Mamfe road in Mamfe linking Bamenda

The development of the high potential South West Region is hampered by problems of access, mostly during the eight rainy-season months when the region is virtually cut off from the rest of the country. The very advanced state of deterioration of the road, coupled with the heavy traffic, have hampered all maintenance and resurfacing works from producing an acceptable level of continuous service on the road. Having gone beyond all maintenance thresholds of this road, development and/or rehabilitation are not only urgent but stand as the only possible alternatives. Furthermore, since this road is an extension of the Bamenda-Enugu Corridor between Cameroon and Nigeria towards the economic capital Douala, its development will help to generate higher returns on the investment made on this corridor constructed with Bank financing.

Road maintenance in Cameroon is managed by the MINTP, through the DPPER (Department of Road Protection and Maintenance). It schedules road maintenance (RM) operations from a data bank that provides inputs for the road maintenance planning and programming model. It also prepares bidding documents and related contracts, submits contracts for approval and supervises works executed by SMEs after competitive bidding. The DPPER has the human and material resources required for efficiently fulfilling its mission. It receives assistance regularly from financial partners through training programmes and supply of equipment. To finance all routine maintenance expenses, Cameroon, by Decree No. 98/162 of 26 August 1998, established a second-generation Road Fund (RF) placed under the supervision of the Ministry of Finance, but enjoying a legal status and autonomous

management. RF resources come mainly (over 90%) from the road use charge collected directly from the sale of fuel. RF resources, limited in 1998/1999 to CFAF 15 billion, rose to CFAF 35 billion in 2005, to CFAF 50 billion in 2008, and to over CFAF 64 billion in 2010, thanks especially to higher road use charges (see Graph 1 opposite).

Until 2011, Cameroon's Road Fund benefited from funds collected directly from the petroleum products charges. From then onward and following amendment of the 2011 Finance Law, the Government decided as a transitional measure to put the resources intended for the Fund into an account opened in the Fund's name in BEAC, which will transfer them as calls for funds are made. This new measure, which stems mainly from the relatively weak resource absorptive capacity observed despite commitments for contracts signed with SMEs, has not fundamentally disrupted the operation of the Road Fund which continues to receive resources required for accomplishing its mission. This weak absorptive capacity stems from: (i) delays in contract awards and weak organizational and material capacity of SMEs identified as prime contractors; and (iii) the operations programming system in which the RF is not involved since it only acts as a payment instrument.

3.3 Administrative challenges faced by Mamfe-Bamenda road users in Mamfe

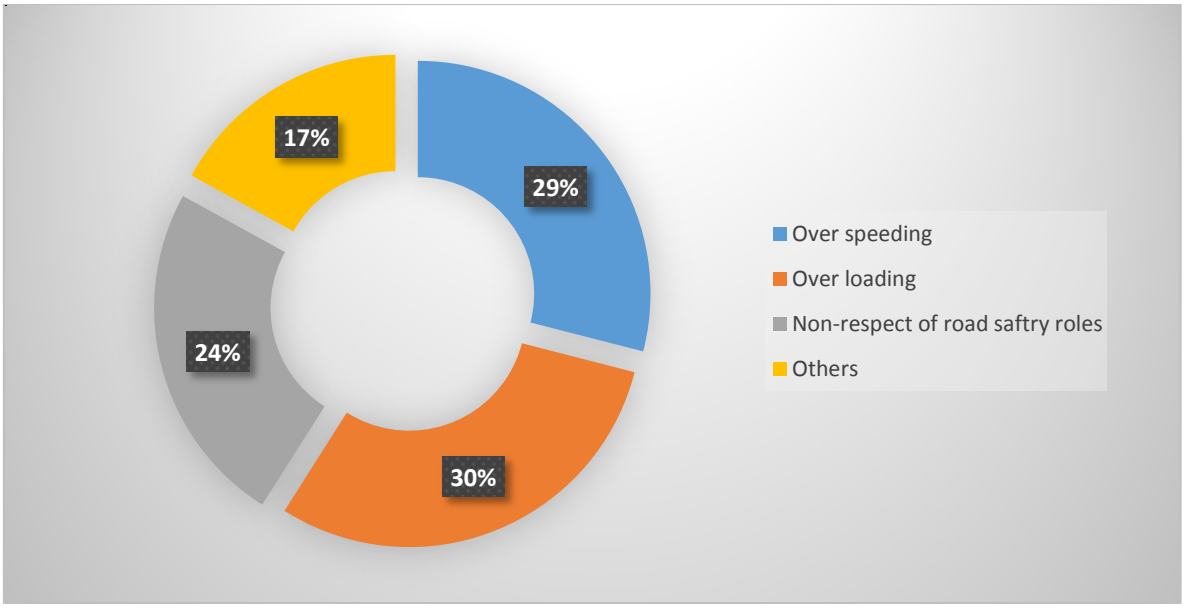
The mechanism put in place by Cameroon to ensure durability of the road network is deemed generally efficient. It has been noted that axle-load inspection measures has helped to: (i) sensitize transporters on compliance with loading standards; and (ii) reduce the offence rate from 80% before enforcement of the law to slightly over 7% currently. Furthermore, the Government has embarked on building new weigh-stations to cover a greater portion of the priority network; the number of stations is expected to increase from 18 currently to 23 by 2015. In all, these measures help to ensure that the road network is in relatively good state and regularly well-maintained. The Road Fund revenues currently cover nearly 80% of all road maintenance needs, including 100% of routine maintenance needs.

Within this context, it should be noted that the MINTP will include the maintenance of the Kumba-Mamfe Road in the priority network maintenance schedule after the works performance security period. Discussions with the Cameroonian authorities and the other Technical and Financial Partners revealed that: (i) the RF organizational arrangement was not affected by the measure suspending direct collection of charges, and (ii) the Fund has the resources required for fulfilling its routine obligations. A number of actions are also underway to help consolidate all these efforts, in particular: (i) updating the Road Master

Plan under this project to help improve the programming of works; (ii) the training of SMEs in contract management (ongoing with financing from the European Union and World Bank); (iii) reform of RF internal procedures and those governing its relations with the contracting authority; and (iv) building RF capacity in planning and resource management. 4.6.6 Furthermore, as regards establishment of the structures of the new Ministry of Public Procurement, processes will be adopted to monitor contracts performed by SMEs in terms of transparency, equity and competiveness. Reflection on the form of the RF and the issue of absorptive capacity will be the subject of a sector dialogue with Government and other partners, and will focus on three (3) main aspects: (i) capacity building in the programming of maintenance operations; (ii) improvement of the quality of collection methods (return to direct collection) and management of resources earmarked for road maintenance; and (iii) capacity building for SMEs that are awarded road maintenance contracts.

The reflection should, in the medium term, result in the streamlining of institutional and operational arrangements for sustainability of road investments in Cameroon. Risks that can hamper the achievement of outcomes concern: (i) failure to meet commitments regarding the inspection of axle-load and the gross weight of vehicles; (ii) weak resource mobilization and absorption for road maintenance; (iii) fragility and non-adherence of youth organization structures.

It was noticed during field surveys that the forces of law and order controlling tall gates and shaping the way they should operate have resulted in the collection of mini bribes from transporters and letting them go. This further explains the reasons for the circulation of illicit goods here. This paints a picture where the uniform men are feeding fat and filling their pockets in the name of regulating transporters activities along the Bamenda-Mamfe road. The collection of these mini bribes by uniform men is partly explained by the fact that transporters do not comply to the conditions under which they should operate which include limiting overloading and over speeding. Field inquiries revealed that most of the road users too are involved in over speeding and deviant driving ways (Figure 19).



Source: Field work, 2021

Photo 7: Some deviant driving methods used by drivers in the Mamfe-Bamenda road

Figure 19 shows that 29 % of the respondents perceived that most of the drivers plying the road are over speeding which most at times leads to accidents which at times are very common in the high way. Overloading represents 30 % of most road users who over carry goods and people in the road. This is partly resulting from high need for money reason why they force their vehicles to over charge them. Non-respect of road signs such as coordinated traffic lights is another *evil* perpetrated by the road users (24%). Other related factors such as drinking and driving represents 17 %. It was noticed that very little is being done to limit such deviant road users by the authorities and uniform men. This was partly because of the crises plaguing the North West and South West region of Cameroon.

According to the interviews granted with some transporters on the Bamenda-Mamfe on the forces of law and order and bribe taking, 75% of them attested that even when they try to avoid the uniform men by fulfilling some of the conditions, they continue to insist in collecting bribes by looking for one fault or the other.In line with these interviews, it was realised that most of the transporters give in to the demands of the uniform men to avoid being persecuted. This has been ritualised between transporters and the forces of law and order with every operator knowing how much to pay and to whom to pay. This system has made the uniform men to be more interested in the daily flow of cash than transporters complying with the conditions and regulations in force. These state of affairs have gone a long way to implicate the daily incomes of transporters.

Table 13: Respondents views on administrative management of the Bamenda-Mamfe road in Mamfe Division

Localities	N/Eff. Res.	In your opinion, do you agree that uniform officers manage tall gates fairly without taking bribes from transporters?			
		Agreed	Highly Agreed	Disagree	Highly disagreed
Mamfe town	8	2	3	2	1
Banso quarter	15	4	6	3	2
Hausa quarter	13	7	4	0	2
Main street	23	7	13	3	0
Nchang	18	6	7	3	2
Mile one	19	5	14	2	3
Eshobi	14	4	7	3	0
Total	110	35	51	17	10
%	70	30	44.5	16.5	8

Source; Field work, 2021

According to table 13, it indicates that 30 % of the respondents highly agreed to the fact that uniform officers are responsible for taking bribe along the high way especially along the Mamfe-Bameda section of the road. Meanwhile 44.5 % highly agreed that uniform men are fund of taking bribe along this high way road axis which of course is a very bad practice. Interviews revealed that, this actions of the uniform officers have strained road users frequently plying the high way. A truck driver contacted along this road noted that,

Apart from the normal tall gate fee that is supposed to be paid at most tall gates, uniform officials often find one way or the other to collect money from drivers along the high way. The driver further pointed out that every driver before arriving the tall gate or some illegal tall has to prepare something to pay in to the officials…..

Only 16.5% of the respondents refuted this perception of uniform men collecting bribes while 8% highly disagree to the view. These are probably those who are political influenced in one way or the other and would not want to be soil their political ambitions. Key informants from the field reliably confirmed this information to the study that uniform men are more concern with collecting bribes along the high way which is a very serious problem to road users.

3.4 The socio-economic challenges faced by the TAHW road users

Travelling through the major highways across Ekock-Bamenda-Mamfe in Cameroon could be an experience that offers passengers the rare opportunity to have a glimpse of very beautiful and natural scenery. Unfortunately, in the face of growing insecurity caused by highway armed bandits, robbers and kidnappers, travelling experience is worrisome. The road users are confronted with a wide range of socio-economic challenges ranging from prices of spare parts, fuel prices and availability, packing sheds for their vehicles amidst others. Socially, accidents and armed robbery were pointed out to be the main issues suffered by the Bamenda-Manfe high way road userswhich are all issues to be checked into so that this section of the high way can effectively contribute to the socio-economic development which it was meant for. The socio-economic challenges encountered on the high way were identified basically to be armed robbery and accidents along the said high way.

3.4.1 Banditry along the Mamfe-Bamenda high way

Field survey indicated that armed robbery is very common in the said high way with a series of cases already registered. According to some uniform officers interviewed, it was pointed out that the situation at the moment has been worsened by the socio-political crises plaguing the Anglophone regions of Cameroon. This is because of the circulation of arms in the regions. It was therefore important to investigate the frequency of acts of banditry in the high way (Table 14).

Table 14: Respondents perceptions on the frequency of armed robbery on the TAHW

Localities	N/Eff. Res.	In your opinion, what is the frequency of armed robbery attacks on the Mamfe-Bamenda?			
		Very frequent	Frequent	Rare	Never
Mamfe town	8	2	3	2	1
Banso quarter	15	4	6	5	0
Hausa quarter	13	7	4	0	2
Main street	23	7	13	3	0
Nchang	18	3	10	3	2
Mile one	19	5	14	2	3
Eshobi	14	4	7	3	0
Total	110	32	54	19	8
%	70	29.2	49.2	17.3	7.3

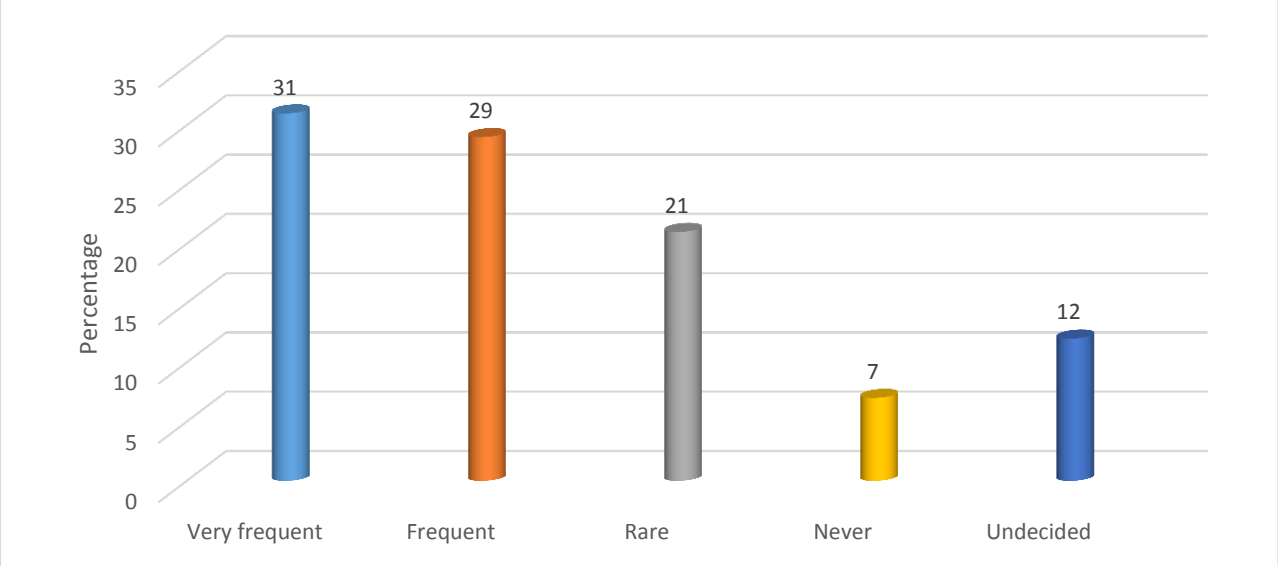
Source: Field work, 2021

Table shows that acts of banditry along the Bamend-Mamfe road are very common though most at times they go unreported. The response score indicates that 29.2 % of the respondents were of the fact that the cases are very frequent while 49.2 % of the respondents perceived such acts are frequent on the high way. Meanwhile 17.3 % pointed out that theft cases are usually very rare along the high way against 17.3 % who underscored that it never occurred. This is probably because they do not frequent the road coupled with the fact that some of the incidences are usually not reported. As earlier pointed out, the security officers blamed the Anglophone crises for the increase road insecurity along this high way. However, it was noted that the government is taking measures to contain such crimes along the high way by stationing police officers along the high.

The socio-political crises in the two Anglophone regions of Cameroon has also played negatively along the Mamfe-Bamenda high way. This is manifested in the form of road blockages, ghost towns where road users finds it very difficult to use the road. It can also be said that the crises has also helped to fuel the crises along this high way. The impacts on this stretch of road are far reaching as trade and passenger flux along this road is disrupted immensely. Also, implanting of local fabricated bombs on the road has destroyed the quality of the road which is now degrading and needs maintenance.

3.4.2 Accidents in the Bamenda-Mamfe high way

Transport is a critical sector of the Cameroonian economy, whose catalytic effect, particularly on socio-economic development, cannot be, overemphasized. Over 80% of transportation in Cameroon is done by road. Transportation safety implies the prevention of accidents and the minimization of accident losses. As Cameroon becomes more mobile, the possibility of accidents resulting in the death of people and the destruction of property on our highway becomes more of a critical factor. The consequences of accidents on our roads are immense. Accidents cause significant losses to present and future productive manpower of our country, as well as, in many cases, profound social problems, deaths or serious injury. Sometimes this results in loss of breadwinners, pushing the affected family into poverty, and jeopardizing educational upbringing of children. Accidents impose heavy costs on the health services. It was therefore important to investigate from the respondents the frequency of the occurrence of accidents along this high way (Figure 20).



Source: Field work, 2021

Figure 18: Respondents views on the frequency of occurrence of accidents along the Mamfe-Bamenda high way

According to figure 20, it shows that the rate of accidents in the road is very high (31%) against the responds score which pointed out that 29 % is simply frequent**.** As a matter of fact, accidents in most Cameroonian roads kill many people as much as malaria**.** Interviews underscored that rate of frequenting occurring in the high way is very high and unbelievable which needs more attention from public authorities. Do to unavailability of statistics on accidents on this high way, photographs were taken to show the evidence of the some of the accident scenes recorded along the high way (Plate 3).

Plate 3: Accident scenes captured along the Mamfe-Bamena high way

Source: Enow, April-September 2021

Photo 8 illustrates an accident scene along the Mamfe-Bamenda high way. The accident occurred with a truck → transporting red oil to Bamenda. The scene shows how three vehicles have been destroyed in the scene.→ A white vehicle totally destroyed → a black carina e vehicles closest to the truck destroyed. It was reported that this accident lead to 5 dead and many injured. Photo 11 shows a GENERAL EXPRESS passenger bus involved in an accident along same road axis. Some passengers from the bus.

Only 21% of the respondents of the view that for accidents to occur in this road is very rare. This is surely because these respondents do not frequently use the high way couple with the fact that most at times the incidents are not reported. It further goes that 7 % perceived that such as never occurred in the road while 27 % were indecisive about accident

occurrences along the high way. In view of such accidents, it was important to investigate into some of the causes of the accidents.

3.4.3 Some causes of accidents along the Bamenda-Mamfe high way

Accident is defined as anything which happens by chance, anything occurring unexpectedly. Road traffic accident is therefore an unexpected phenomenon that occurs as a result of the operation of vehicles. Accidents can be fatal, resulting in the deaths of the road user or minor. Accident don't just happen, they are caused. In other words, every accident in relation transport is not just a mere occurrence but has been instituted as a result of one factor or the other. A good awareness and knowledge of causes of road traffic accidents will help us to avoid them. During field surveys, a number of causes were identified as being responsible for road traffic accidents along the Bamenda-Mamfe high way.

The causes of road traffic accidents therefore fall under three major categories viz– Human factors, Mechanical factors. Of these three categories, the human factors are said to be responsible for over 80% of all traffic crashes because the drivers' operational ability is very critical to the causes and prevention of traffic accidents.

3.4.3.1 The Human Factor:

The human factors constitute about 80% of the cause of road traffic accidents recorded in the country. The major components of human factor are drivers, pedestrian, law enforcement agent and the engineer. Most drivers on high way road are very rude, discourteous and have scant regard for human life. This has led to daily avoidable carnage on high way with many losses of lives. Almost to the point of indisputability is the fact that, of virtually all the significant factors contributing to the alarming proportion of accidents on high way, the human factor tops the list.

Indicators to verify the claim are evident: (a) Prevalent disregard of road traffic signs by road users; (b) Lack of proper training of drivers; (c) Irresponsible driving habit particularly among teenage drivers; (d) Inexperience and incompetent drivers; (e) Over speeding, dangerous driving and total disrespect of traffic regulations especially concerning speed limits; (f) Drink driving and/ or driving under the influence of drugs including herbal concoctions laced with spirit; (g) Lack of respect / consideration for other road users; (h) Impatience and negligence (i) Overloading of vehicles; (j) Fatigue.

3.4.3.2 The Mechanical Factor

The vehicle also constitutes one of the major factors of road traffic accident. Road safety however goes beyond periodic check or prompt repair of vehicles. It should be a daily routine of care and check of all components of a vehicle. The main vehicle factors are defects in tyres, brakes and inputs all arising from poor maintenance of the vehicle. The global economic recession have badly affected the quality of products in the Nigerian markets such that people now favour the use of sub-standard products like Tokunbo tyres, spare parts and Tokunbo vehicles. These, coupled with over speeding and reckless driving, negate the principles of safety when considered against the phenomenon of used vehicles. Any of those parts malfunction can eventually affect smooth driving, which in the end, can lead to serious accident. The different component of mechanical factor that resulted into accident are: (a) Brake failure; (b) Burst tyres; (c) Engine failure; (d) Use of fake spare parts; (e) Defective and Dazzling lights; (f) Poorly maintain vehicles.

The effects of Road Traffic Accidents cannot be over-emphasized. Cameroon has a bad record of road traffic accident. Cameroonians have had a fair share of losses in social and economic terms from road traffic accidents. Road accidents have taken away so many lives in Cameroon today that hardly does any single disease match its mortality prowess. People have died prematurely and properties worth several millions of FCFA have been lost as a result of road traffic accident. While, losses arising from suffering, bereavement and social disruptions, which may be difficult to measure in monetary terms, are regarded as part of the basic social cost of accident. Social cost in terms of trauma i.e. loss of closed relatives, associates, friends, father, mother etc. which eventually lead to psychological depression. Other victims that might not have died may carry relics of handicaps such as loss of limbs, blindness, or even bound to wheel-chair for life. Such victims and families suffer severe psychological trauma, often from stigmatization or mental imbalances. Accidents are therefore not to be allowed in our roads, we have to combat them with all energies and adopt sustainable strategies in managing them.

3.5 Conclusion

The construction of the Mamfe-Bamenda high way came as a messiah to Mamfe Sub-division and its people. This is because it helped to revive the pass glory of the town of Mamfe as an economic and trade hub of the South West Region of Cameroon. Jobs were created to many people and it continues even today. However, this road also came as a mixed

blessing especially to the users of the high way because of armed robbery registered in the road and numerous accidents which have to be contained and well managed in order to make the road rich and beneficial to many. Just like vehicles, the condition of the road infrastructure is also very important when thinking of improving road safety records in Cameroon. The various organs involved in managing roads in Cameroon such as MINTP, MINT to say the least, is deplorable. Many lives have been lost due to bad roads. Moreover, MINT and MINTP, The Police Force, Road Safety Corps and other related agencies should regularly conduct surveys to identify and mark prominent traffic spots and accident prone road sections (black spot). This would help install advance warning signs to road users. Same goes for very dangerous pot holes especially on the highways. All roads should be well marked and traffic signs appropriately located.Accident is a common phenomenon. It does not segregate on the basis of time and place of occurrence. Road traffic accident in Nigeria is a very serious issue requiring a holistic attention and approach towards curbing its occurrence considering the magnitude of the problem it presents to every Cameroonian road users. This now brings to a new chapter which handles the management strategies put in place by the movement.

CHAPTER 4

CHALLENGES TO EFFECTIVE SOCIO-ECONOMIC DEVELOPMENT IN MAMFE FROM THE ROAD INFRASTRUCTURE

4. 0 Introduction

Road transportation is one of the most prevalent and widely used means of transportation in Cameroon. The system promotes socio-economic development and rapid transportation of goods, human and animals. “Over 70% of the total movements of the registered vehicles in the country and about 80% of the freight movements take place on the road”.Road construction in any area ignites development which is perceives in different dimensions. These dimensions cuts across urbanization, increase mobility, improvement in mobility amongst others. However, these developmental aspects do not occur without some constraints which necessitates salient measures to handle them. This explains the reason for this chapter which sets out to point out sustainable management policies or State actions vis a vis actions of the local population to fight against such challenges to build a good and secured transport system. The challenges to which these propositions are made are largely linked to road insecurity which is a critical issue faced along the Bamenda-Mamfe stretch of road.

This study examines the effectiveness of communication in road safety awareness strategies. It highlights the way in which the Cameroonian press deals with the theme of road safety while looking at the public authorities’ awareness strategies on the same subject. It comes at a time when road accidents are on the increase, despite the government’s awareness-raising measures, and at a time when several road and highway infrastructures are being built. Indeed, the resurgence of road accidents, the resulting deaths and the fact that the road remains the primary means of moving people and goods have led the public authorities to address the problem of road safety. In order to be in line with the country’s development objectives to show that road accidents and also the Anglophone crisis has an effect on the development of the mamfe town, actions are being taken to reduce road accidents and preserve the road heritage.

4.1 Road safety concerns or measures in Cameroonian roads

Road safety is a major concern in Cameroon, due to the multiplicity of road accidents resulting in the loss of human lives and the deterioration of road infrastructures. Road safety

in this study represents the set of norms, mechanisms and measures taken by the different actors in charge of road infrastructure construction and road traffic management in order to ensure the protection of road users and their property. It is one of the major concerns in Cameroon, due to the multiplicity of road accidents resulting in numerous losses of human life and property and the deterioration of road infrastructure. It can be considered as the search for an ideal that goes through several axes targeting the state of vehicles, the quality of road infrastructure and the behaviour of road users.

In 2019, the year marking the end of the United Nations decade of action for road safety, the number of deaths on Cameroonian roads was 937, while it was 1588 in 2011. According to the ministry in charge of transport, this decrease is justified by the strengthening of technical inspection procedures, the intensification of road prevention and the compliance of road signs.

With regard to previous research on the subject of road safety, it should be noted that very few researchers have focused on the information and communication aspects of road safety. While there are several works that deal with road safety, very few deal with road safety communication. In a doctoral thesis entitled "Beliefs and safety behaviors of road users and agents: a study of perceptions and naive explanations of road accidents in Cameroon", defended in 2012, (Nguetsa, 2012) attempts to identify the behaviors of Cameroonians on the roads. Starting from the naive explanations of accidents and the perception of risk that affect the behaviour of road users and agents in Cameroon, he examines 522 real accident reports and shows that a large majority of accidents occur in good driving conditions. It states that in a road accident situation, drivers blame each other, but agree with the gendarmes that driver behavior is the primary cause of road accidents in Cameroon.

In a research entitled "The challenges of road safety in urban areas in Cameroon: the case of motorbike taxis in Yaoundé", (Djiepmo, 2008) interested to the problem of motorbike taxi transport, which has become part of the population's customs, and its relationship with road safety (2008). With the aim of seeking perspectives for improving road safety in the motorbike taxi activity in Cameroon, the author notes that in 2006 alone, just over 600 cases of motorbike taxi accidents were recorded at the Yaoundé University Hospital, including 150 deaths, i.e. 25% of those involved. He concluded by developing a multi-level road safety system. In a Master's thesis entitled "Effectiveness of road prevention measures on the behaviour of road users in Cameroon", (Hadji, 2018) questioned the behaviour of road users and the effectiveness of road prevention measures. He believes that road prevention measures

need to be studied in depth in order to influence the behaviour of road users (motorists, motorcyclists, pedestrians) in Cameroon in a favorable way and specifies that, in general, in the context of road safety, strategies for influencing so-called social behaviors aim to encourage individuals to adopt a new behaviour and to give up engaging in a behaviour that is considered harmful or dangerous. However, we can say that the present research is of great interest because it tackles an issue that has been little explored. Indeed, previous research has focused more on the road, vehicles and accidents, without really emphasizing the communication strategies that should contribute to facilitating behavioral change among road users.

4.2 Strategies put in place to ensure road security along the Mamfe-Bamenda stretch of road

The propose road safety strategies in Cameroon and particularly along the Mamfe-Bamenda high are quite much and cuts across a myriad of spheres. They are presented, analyzed and given a more exposure on how and where more efforts may be concentrated to build a rich and a sustainable road mobility free from accidents. This is because unsecured roads and port infrastructure plays negatively on the socio-economic development of the country and local economies and livelihoods. The MINT and other relevant stakeholders have not been relenting their efforts see to that road security campaigns goes successful in Cameroonian roads. The efforts of the MINT goes beyond national measures but goes further to international efforts with other countries via workshops, seminars and conferences all aimed at securing our roads. All measures taken are given a closer look for a carful diagnoses.

4.2.1 The effects of road accidents to the socio-economic development of Mamfe

Road accidents are among the most important public health problems in Cameroon. While road conditions and other factors can be mentioned, the behavior of road users and road prevention measures remain important. We focused on users of the Bamenda-Mamfe high way to conduct our study on the effectiveness of road safety awareness campaigns. A first exploratory study on this road axis carried out with twenty (20) users of this road, allowed us to note that the latter had convergent points of view on human and environmental factors, notably: speeding, alcohol, the state of vehicles, overloading, night travel and the state of the road, among others. Subsequently, we conducted semi-directive interviews with fifty (50) users of national roads n˚3 and n˚5 interviewed in interurban transport agencies and

at roadside checkpoints. We found that those who agreed to be interviewed were predominantly male with a percentage of 85% against 15% for women. In addition, our sample was composed mainly of users with a secondary level of education and no schooling, which allows us to conclude that in the Cameroonian environment, we find more users with a secondary level of education.

Along this high way, strict measures should be put in place to handle issues of road insecurity predominantly accidents and theft. This study proposes that security agents should accompany drivers along the road axis to fight against insecurity. Secondly, tightening road security via the deployment of many uniform men on the road will go a long way to reduce illicit comportments of some drivers. These are however measures that the state has been implementing but which till now yield very little fruits because of some laxity exhibited by the some officials to reinforce road security in Cameroon particularly along the Mamfe-Bamenda highway.

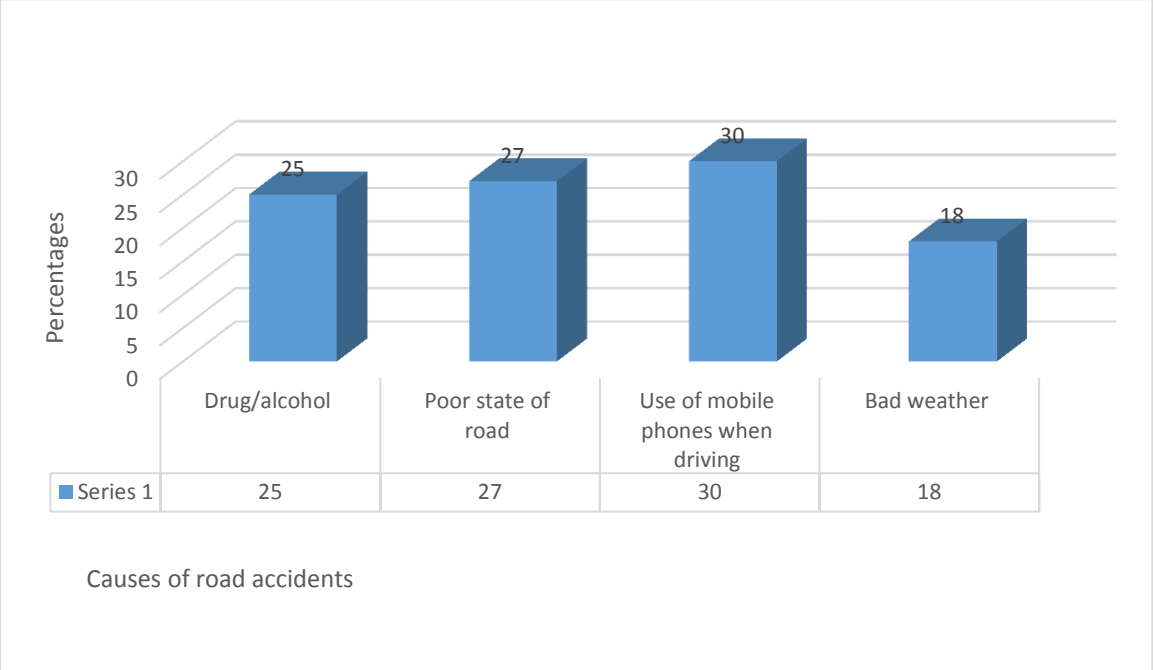
4.2.2 Road Safety and Communication Strategy

It should be noted from the outset that communication is used in the fight against road insecurity at several levels, whether it be awareness campaigns or social campaigns focusingon threats (such as control, surveillance and repression). Campaign strategies based on shock are almost non-existent in road safety in Cameroon. However, there are signs on the roads reminding us of the number of deaths at various spots. These are in fact black figurines, accompanied by signs specifying the number of people who died following an accident at a specific spot. Along the Mamfe-Bamenda highway road, for example, there are several such signs

Photo 8 : Bameda-Mamfe highway and weathered road signs

Source: Enow, 23/03/2021

These signs not only inform about the accidents that have occurred at these spots, but also aim to instill fear in users and consequently change their behavior on the road. Thus, when they arrive at these locations and observe these signs, the first idea is to reduce speed and improve driving behavior. The unfortunate thing is that some of the road sings are found on boards that have weathered away which most at times are not very visible. Of those who responded to our interviews, 89% said that road safety is the result of the behavior of road users, compared to 11% who said that road safety is the result of other factors such as the State, the poor state of the roads, the environment, etc. Among the causes of accidents are excessive speed, alcohol/drug consumption, poor road conditions, the use of mobile phones while driving and other causes such as distraction, wheel bursts, bad weather, etc. according to the survey instrument that was filled, it revealed that excessive speed, drug/alcohol consumption and the poor state of roads were among the causes of road accidents (Figure 21).



Source: Field work, 2021

Figure 21: Outstanding causes of road accidents along the Bamenda-Mamfe high way

According to the figure 21, it shows that the use of mobile phones (30%) is the outstanding cause of accidents along the high way. To this effect, if the state official concerned with transport and road security can sensitize and re-sensitize high way road users on the dangers of using mobile phones when driving it will go a long way to reduce accidents and its accompanying socio-economic ramifications. This is closely followed by the poor state of the with potholes from left to right. Mending the road and filling the potholes is

another sustainable way of reducing road accidents. Drinking alcohol or taking drugs before driving is very detrimental to the lives onboard and the goods on the carriage. So, limiting the taking of drugs and alcohol comsumption before and during driving is very important to mitigate road accidents. The state can use the media like the CRTV to sensitize road users against such behaviors. These are all issues very common along the Mamfe-Bamenda high way.

On the whole, we noted that communication campaigns are not formally implemented, users are made aware during road safety campaigns and certain messages are conveyed through signs along the roads. One might therefore rightly think that communication on road safety is carried out on the roads by means of communication that arouses fear through signs. Therefore, the question that is asked is: Does fear communication therefore have a positive influence on the responsible behavior of road users? (Witte, 1992) defines fear communication as an emotion that is evaluated negatively, but which can be accompanied by a high rate of alertness to reflection. The opinion collected from road users gave us a clear picture. The road users interviewed stated that the gendarmerie officials in charge of the awareness units on the roads have developed a more structured and organized communication, which emphasizes awareness. Although they adjust their behavior on the road according to the presence of speed cameras and, above all, in order to avoid financial penalties, the users recognize that the presence of the gendarmerie force brings more discipline to the roads. It also appears that roadside checks are one of the road prevention measures that the government and police forces uses to regulate the uncivil behavior of road users. Fixed and mobile radars have also been set up to flashed motorists who have violated the Highway Code; roadside checkpoints to monitor and punish offences with fines or impoundment, depending on the case.

Regarding the signs indicating the number of deaths, users say that they are a warning to motorists to slow down each time, but that once they have crossed the area, their usual behavior resumes. It should also be pointed out that the users interviewed who had already been involved in accidents explained their accident exclusively by external factors. In this case, they primarily emphasized the behavior of other drivers and secondarily the environment (road conditions, bad weather), the vehicle or the behavior of pedestrians to explain their accident. Nowhere does a causal explanation appear in which a driver mentions a cause related to his own behavior to explain his accident.

Clearly, it appears that road users are sensitive to any manifestation of fear, repression or punishment. In awareness-raising strategies, communication through fear could well contribute to bringing road users to greater discipline, all the more so as the study of the impact of emotions in prevention campaigns such as road safety is part of the affective research trend that has emerged since the early 1980s. Dupuis, (2011) shows that fear belong to the emotions and more particularly to the three primary emotions of anger, love and hate. It arises from the awareness of a threat that could eventually occur (such as accidents) and put the individual in danger (death or lifelong disability). This can have an impact not only on his life because he can no longer work even if he is alive, but also for those around him who have to take care of him and even for the society as a whole.

In summary, it is not only the presence of controls on the public highway that leads users to respect the Highway Code. Moreover, they do not respect this code because there is radar, but rather because they are afraid of being stopped. To this end, it would undoubtedly be essential for road safety actors to develop road prevention measures by integrating fear and repression (questioning), as road users in Cameroon are sensitive to this. The users also recognize that apart from the gendarmerie force, other actors intervene in awareness raising, such as non-governmental organizations which take several measures, including social marketing through communication and awareness raising.

In the field of road safety, several tools can be used to change the behavior of road users, ranging from awareness campaigns and social advertising to the integration of the road safety component into teaching programs and training in driving schools. We noted that the effectiveness of fear communication and roadside enforcement is dependent on two conditions. The first is the importance given by the target citizens to the benefits of adopting the prescribed behavior mentioned in the communication, and the second is the magnitude of the estimated efforts to achieve the recommended behavioral changes, since if the perception of the efforts to be made outweighs the expected benefits for the users. This perception is also influenced by the social environment itself, as the social environment as a whole is favorable to change, and each individual will be open to it.

Given that drivers are the main users of the road and the safety of the road largely depend on them, it is important that special recommendations are made to drivers of the this high way. This is to properly handle the salient issues hindering the smooth functioning of the Mamfe-Bamenda road especially in Mamfe town,

4.3 Road users (Drivers)

Integrating the role of the new technological development, an accurate data base can be created by software developers where it can be maintained and frequently updated to help facilitate effective road monitoring especially as concerns heavy duty trucks. This may help to improve road usage and mitigate accident rates along this stretch of road. This may help in record keeping and tracking of any accident incidences and coming to the rescue of the victims. This may equally help in in tracking down of any irregularities committed by the operators. Equally, telephone lines can be maintained where they are being dialed in the case of any crime committed by armed robbers on the road.

Drivers should handle their vehicles proficiently and skillfully. They should maintain a high level of concentration when driving to be aware of the changing road environment. This will go a long way to reduce the rates of accidents caused by drivers. This suggestion falls in line with field observations which revealed drivers do not respect the conditions and modalities of driving code put in place by MINT.

Drivers should not take alcohol or any drug when driving for whatsoever reason because it will only act negatively on them. Equally drivers should not answer calls while driving because these can lead to fatal accidents which are very common on highways.Respecting state institutions, abiding to the conditions and modalities of driving it will go a long way to reduce irregularities on highways. This in effect will lead to success of the activity and sustainable rural transport which is a foundation to social and economic development.

4.4 Conclusion

The consequences caused by road accidents constitute a major problem for society, the economy, development and public health in Cameroon. The problem of road safety is therefore a major issue. We therefore questioned the representations of road safety in the press and wondered about the way in which users are made aware of the problem, in relation to the effectiveness of the strategies deployed. While we noted that speeding, driver recklessness, dangerous overtaking and lack of control are some of the critical causes of road accidents in Cameroon, we also found that the lack of awareness of road safety issues is a major cause of road accidents. In order to bring drivers to change these behaviors, repression alone is not enough; it must be dissuasive and not exclusively repressive. If we recognize that acting in the media in matters of traffic and road safety is to highlight a problem at the heart

of the solutions sought by the State, it must be admitted that sensitization through the media is not enough on its own.

It is therefore important to include social marketing as a major element that can combine the best elements of traditional behavioral change approaches into an integrated framework of planning and action, using techniques such as fear communication. Therefore, in order to make road safety measures effective, we suggest that, in addition to roadside campaigns, lessons related to road safety education and compliance with traffic laws should be introduced into school curricula and the targets of road safety campaigns should be extended to facilitate behavior change. The road prevention approach can therefore be modeled on the social marketing approach, which is also similar to that of commercial marketing in that it is based on a systematic approach based on prior diagnoses (such as the incivility of public road users). This approach would consist of segmenting the targets well; targeting the segment in which it is possible to achieve results more easily and quickly; determining the desired behavior; developing a good understanding of the expectations, representations and barriers to this behavior; developing communication campaigns using the tools of mix marketing; and monitoring and evaluating the results through changes in behavior.

GENERAL CONCLUSION

SUMMARY OF FINDINGS, CONCLUSIONS AND SUGGESTIONS

Introduction

This study concentrates on the contribution of the Mamfe-Bamenda road infrastructure to the socio-economic development of Mamfe town. In an attempt to sufficiently diagnose the problem stated which is based on urbanisation and related challenges of the high way, cross border trade and the challenges faced by the road users, a general objective and three specific objectives were set. These objectives had as main goal to evaluate how far the road infrastructure has influenced urbanisation, promotes cross-border trade and the assessment of the challenges confronting the road users. Data on the extent to which the objectives of the study have been attained is presented in the four chapters of this study. This same data is used for the testing and validation of the stated hypotheses.

Summary of Findings

The summary of finding was done based on the testing exercise of the hypotheses which was accompanied by the discussions of the results and drawing up of meaningful conclusions. The hypotheses tested were in line with the various chapters from chapter one to chapter three. The hypothesis for chapter four was verified descriptively. This in other words portray the summary of findings for each chapter based on the results of each hypothesis.

Testing of hypotheses, analysis and discussions of the results

The testing of each hypothesis was based on the theory of perception in action that was drown from respondents' views and quantified through the survey instrument administered. The notion that perception is a requisite property of animate action; that without perception a research would be unguided, and without taking an action on that perception, it would serve no purpose constituted the departure point for a series of verification and validations of the stated hypotheses. Knowledge is the foundation of a process in which attitude, norms and perceptions of possibilities to act are carefully monitored to clarify and decide between behavioural alternatives. To verify these hypotheses a statistical tool was used notably the Chi square to analyse the data obtained in the field through direct observation, interviews, focus group discussions and the administration of questionnaire. After testing each

hypothesis, some analyses and discussions of the results of the test exercise were made. Research hypothesis 1 is first tested, followed by hypothesis 2 and then 3.

Research hypothesis 1

Research hypothesis 1 guided the study to collect relevant data to establish a link between the high way road infrastructure and urbanisation in Mamfe town. It follows that where a road passes, development follows. It is in this light that the rapid rate of urbanisation was believed to have been increasing as a result of the construction of the high way road infrastructure via the town of Mamfe. To properly verify this hypothesis, table 4 of the work was exploited to see the correlation between urbanisation rate and the Mamfe-Bamenda road infrastructure.

The contingency table

Observed value (O)	Expected value (E)	O-E	$(O-E)^2$	$\frac{(O-E)^2}{E}$
5	5	0	0	0
2	5	3	9	1.8
1	5	-4	16	3.2
7	5	-2	4	0.8
4	5	-1	1	0.2
4	5	-1	1	0.2
8	5	-3	9	1.8
3	5	2	4	0.8
2	5	-3	9	0.8
15	5	10	100	20
4	5	-1	1	0.2
4	5	-1	1	0.2
9	5	4	16	3.2
8	5	3	9	1.8
1	5	-4	16	3.2

8	5	-3	9	1.8
2	5	-3	9	1.8
9	5	4	16	3.2
13	5	8	64	12.8
0	5	5	25	5
1	5	-4	16	3.2
				$\sum$ 64.56

Source; computed from table 5

$$x^2 = \frac{(O - E)^2}{E}$$

Chi square value = 78.38

Degree of freedom = (c-1) (r-1) = (7-1) (3-1) = 6×2 = 12

In a bit to establish the degree of relationship between variables, as depicted by table 24, acontingency table was developed and the null and alternative forms of the hypothesis were equally stated.

Null hypothesis (Ho): The Bamenda-Mamfe high way has not influenced the rate of urbanisation in Mamfe town.

Alternative hypothesis (Ha): The Bamenda-Mamfe high way has influenced the rate of urbanisation in Mamfe town.

Considering our Chi square statistic (x^2 = 64.56), which is the calculated value, our predetermined alpha level of significance (0.05), and our degrees of freedom (df =12). Inferring from the Chi square distribution table at 21 degrees of freedom and reading along the row we find that our calculated value of x^2 (64.56) is above the critical value 21.026. since our calculated value of x^2 = (64.56), is far above the critical value, we can then reject the null hypothesis (Ho) that;The Bamenda-Mamfe high way has not influenced the rate of urbanisation in Mamfe town and retain the alternative hypothesis which stipulates that;The Bamenda-Mamfe high way has influenced the rate of urbanisation in Mamfe town.

The first specific objective was based on the influence of the construction of the Mamfe-Bamenda high way in the urbanization of the town of Mamfe and the Sub-division in general. Though urbanization is not a negative phenomenon from the onset, if care is not appropriatly taken, it can be spontaneous which will a long way to ignite related ills and some common challenges which are very glaring in Africa town today. This stems from pressure on resources such as water crises, access to land and pollution challenges which are not environmentally friendly. However, as indicated by the resulted of the test exercise the construction of the above mentioned high way has triggered the rate of urbanization in Mamfe town and its environs.

Research hypothesis 2

This hypothesis attempts to establish a link between the construction of the Bamenda-Mamfe high and the improvement of cross-border trade in Mamfe Sub-division. The responses of the respondents paved the way for the verification and validation of the hypothesis.

"*It is said that were a road passes development follows"*.The construction of the Bamenda-Mamfe high way has brought several developmental opportunities to the town of of Mamfe and the entire Sub-division in general. In order to verify this assertion, the responses of the respondents were exploited based on their perceptions.

A contingency table was developed in order to establish this relationship among the two variables.

Observed value (O)	Expected value (E)	O-E	$(O-E)^2$	$\frac{(O-E)^2}{E}$
6	6	0	0	0
2	6	-4	16	2.7
3	6	-3	9	1.3
4	6	-2	4	0.7
1	6	-5	25	4.2
14	6	8	64	11
1	6	-5	25	4.2
3	6	-3	9	1.3

9	6	3	9	1.3
3	6	3	9	1.3
13	6	7	49	8.2
0	6	-6	36	6
6	6	0	0	0
7	6	1	1	0.2
0	6	-6	36	6
19	6	13	169	28
4	6	-2	4	0.7
4	6	-2	4	0.7
17	6	11	121	20
2	6	-4	16	2.8
18	6	12	144	24
0	6	-6	36	6
8	6	2	4	0.7
8	6	2	4	0.7
2	6	-4	4	0.7
18	6	12	144	24
1	6	-5	25	4.2
9	6	3	9	1.5
7	6	1	1	0.2
3	6	-3	9	1.5
13	6	7	49	8.2
1	6	-5	25	4.2
5	6	-1	1	0.2
7	6	1	1	0.2
				$\sum$ 176.7

The contingency table

Source; computed from table 9

$$X^2 = \frac{(O - E)^2}{E}$$

Chi square value = 78.38

Degree of freedom = (c-1) (r-1) = (5-1) (7-1) = 4×6 = 24

Null hypothesis (Ho): The construction of Mamfe-Bamenda high way road has not promoted trans-national trade between Cameroon and neighboring Nigeria whose impacts are felt in the Mamfe town.

Alternative hypothesis (Ha): The construction of Mamfe-Bamenda high way road has promoted trans-national trade between Cameroon and neighboring Nigeria whose impacts are felt in the Mamfe town.

Considering our Chi square statistic (x^2 = 176.7), which is the calculated value, our predetermined alpha level of significance (0.05), and our degrees of freedom (df =24). Inferring from the Chi square distribution table at 24 degrees of freedom and reading along the row we find that our calculated value of x^2 (176.7) is above the critical value 36.415. Since our calculated value of x^2 = (176.7), is far above the critical value, we can then discard the null hypothesis (Ho) that; The construction of Mamfe-Bamenda high way road has not promoted trans-national trade between Cameroon and neighboring Nigeria whose impacts are felt in the Mamfe town and retain the alternative hypothesis which stipulates that;The construction of Mamfe-Bamenda high way road has promoted trans-national trade between Cameroon and neighboring Nigeria whose impacts are felt in the Mamfe town.

The second specific objective of the study was based on the extent to which the construction of the Mamfe-Bamenda high way has promoted trans-national trade between Nigeria and Cameroon in that part of the country. Cross-border trade highly depends on road network connectivity and such an activity may crumble of road connectivity or the transport systems are poor. The construction of the Bamenda-Mamfe high way came to revive the town of Mamfe and environs and to promote the trade that used to be practiced in this town in the colonial days. This has also promoted internal on both sides. Having noted that urbanization and promotion of trade are key variable ignited by the construction of the road, it was important to correlate the challenges faced the road users. This gave way now to verify hypothesis 3.

Hypothesis 3

This hypothesis sets out to assess the challenges confronted by the Bamenda-Mamfe road users. The responses of the respondents on the challenges confronted by the high way road users paved the way for the verification and validation of the hypothesis.

When an economic activity is confronted with a series of challenges, its ability to effectively operate becomes problematic. In order to verify this assertion, the responses of the respondents were exploited.

The contingency table

Observed values (O)	Expected values (E)	O-E	$O\text{-}E^2$	$\frac{(O-E)^2}{E}$
3	5	-2	4	0.8
2	5	-3	9	1.8
2	5	-2	4	0.8
1	5	-4	16	3.2
3	5	-2	4	0.8
6	5	1	1	0.2
4	5	-1	1	0.2
2	5	-3	9	1.8
7	5	2	4	0.8
4	5	-1	1	0.2
0	5	5	25	5
2	5	-3	9	1.8
7	5	2	4	0.8
13	5	7	49	9.8
3	5	-2	4	0.8
0	5	-5	25	5
6	5	1	1	0.2
7	5	2	4	0.8
3	5	-2	4	0.8
2	5	-3	9	1.8
4	5	-1	1	0.2
11	5	6	36	7.2
2	5	-3	9	1.8
3	5	-2	4	0.8
4	5	-1	1	0.2
7	5	2	4	0.8
3	5	-2	4	0.8
0	5	-5	25	5
				$\sum$ 57.42

Source; computed from table 12

$$x^2 = \frac{(O - E)^2}{E}$$

Chi square value = 57.42

Degree of freedom = (c-1) (r-1) = (4-1) (7-1) = 3×6 = 18

Null hypothesis (Ho): Socio-economic, administrative and communication challenges are not being faced the Mamfe-Bamenda high way road users.

Alternative hypothesis (Ha): Socio-economic, administrative and communication challenges are being faced the Mamfe-Bamenda high way road users.

Considering our Chi square statistic (x^2 = 57.42), which is the calculated value, our predetermined alpha level of significance (0.05), and our degrees of freedom (df =18). Inferring from the Chi square distribution table at 18 degrees of freedom and reading along the row we find that our calculated value of x^2 (57.42) is above the critical value 28.869. since our calculated value of x^2 = (57.42), is far above the critical value of s, we can then reject the null hypothesis (Ho) that; Socio-economic, administrative and communication challenges are not being faced the Mamfe-Bamenda high way road users and retain the alternative which states that;Socio-economic, administrative and communication challenges are being faced the Mamfe-Bamenda high way road users.

Hypothesis 4

This hypothesis is verified descriptively which confirms to the fact that State agents and agencies and related stakeholders are the most reliable to contain constraints of the Mamfe-Bamenda high way challenges. Drivers too have a preponderant role to play as far as road security is concerned.

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APPENDICES

APPENDIX 1: RESERCH QUESTIONNAIRE

A note to the respondent:

The objective of this questionnaire is for scientific research which will enable us assemble a dissertation on the impacts of the construction of the Bamenda - Mamfe road and itsin fluence to the growth of Mamfe town. Whatever information you give will remain confidential. Please put a tick in the box of the correct answers and frill the black spaces where necessary.

A- Identification of respondent

l) Name _____

2) Sex: a) Male ☐
b) Female ☐

3) Age interval:
a) 18-30 ☐
b) 31 -40 ☐
c) 41 - 60 ☐
d) 60- 80 ☐

4) Matrimonial statuts:
a) Married ☐
b) Single ☐
c) divorced ☐

5) Educational level:
a) High school ☐
b) Bachelors ☐
c) Masters ☐
d) PHD ☐

B- Data on Road construction

1) Are you an indigene of this community?
a) Yes: ☐
b) No: ☐

2) For how long have you been here?
a) 1990 - 2000: Before the construction of the road

b) 2000 -2010: During the construction of the road

c) 2010 - 2021 After constructionof the road

3) Before the construction of this road in 2010, how were you managing your activities?

a) Use of Moto cycle ☐

b) Movements on foot ☐

c) Use of Tracks ☐

d) Others _____ _____

2) Were you affected in any ways during this road construction?

a) Yes ☐

b) No ☐

3) If yes, how were you affected?

a) Destruction of homes ☐

b) Destruction of farm lands ☐

c) Lost of lives ☐

d) Others _____

4) Were you compensated for your lost?

a) Yes ☐

b) No ☐

5) Are there benefits or advantages of this road?

a) Yes ☐

b) No ☐

6) If yes, what are some of those benefits?

a)Increased movement and facilitated transport ☐

c) Boost economic development ☐

d) Ease movements by linking different towns ☐

e) Others _____

7) How has the construction of the road improved upon your living standard?

a) Encourage the cultivation of marketable crops ☐

b) It has facilitated trade ☐

c) Provide fast, less cost means of transport ☐

e) Others___ _____

9) Are there disadvantages of this road construction

a) Yes ☐

b) No ☐

10) If yes, what are some problems your experience here?

a) Frequent occurrence of accidents ☐

b) Potholes ☐

c) Bandits / Theft ☐
d) Traffic ☐
e) Others _____

11) Are there some measure put in place to solve some of these problems?

a) Yes ☐
b) No ☐

12) If yes, what are some of those measures put in place?

a) Filling of potholes ☐
b) Installation of police checkpoint ☐
c) Installation of traffic lights ☐
d) Others _____

13) During the road construction, were people displaced to others areas?

a) Yes ☐
b) No ☐

14) How long did it take for the construction to be completed?

a) One year ☐
b) Two years ☐
c) Three years ☐
d) Others _____

15) Were communities informed before the construction of this road?

a) Yes ☐
b) No ☐

16) If yes, how was the information done?

a) Door to door information ☐
b) Use of community authorities ☐
c) Radio / Television ☐
d) Others_____

–

APPENDIX 2: THE CHI SQUARE STATISTICS

Types of Data:

There are basically two types of random variables and they yield two types of data: numerical and categorical. A chi square (X^2) statistic is used to investigate whether distributions of categorical variables differ from one another. Basically categorical variable yield data in the categories and numerical variables yield data in numerical form. Responses to such questions as "What is your major?" or Do you own a car?" are categorical because they yield data such as "biology" or "no." In contrast, responses to such questions as "How tall are you?" or "What is your G.P.A.?" are numerical. Numerical data can be either discrete or continuous. The table below may help you see the differences between these two variables.

Data Type	Question Type	Possible Responses
Categorical	What is your sex?	male or female
Numerical	Disrete- How many cars do you own?	two or three
Numerical	Continuous - How tall are you?	72 inches

Notice that discrete data arise fom a counting process, while continuous data arise from a measuring process.

The Chi Square statistic compares the tallies or counts of categorical responses between two (or more) independent groups. (note: Chi square tests can only be used on actual numbers and not on percentages, proportions, means, etc.)

2 x 2 Contingency Table

There are several types of chi square tests depending on the way the data was collected and the hypothesis being tested. We'll begin with the simplest case: a 2 x 2 contingency table. If we set the 2 x 2 table to the general notation shown below in Table 1, using the letters a, b, c, and d to denote the contents of the cells, then we would have the following table:

Table 1.General notation for a 2 x 2 contingency table.

	Variable 1		
Variable 2	Data type 1	Data type 2	Totals
Category 1	a	b	a + b
Category 2	c	d	c + d
Total	a + c	b + d	a + b + c + d = N

Note: notice that the four components of the denominator are the four totals from the table columns and rows.

Suppose you conducted a drug trial on a group of animals and you hypothesized that the animals receiving the drug would survive better than those that did not receive the drug. You conduct the study and collect the following data:

Ho: The survival of the animals is independent of drug treatment.

Ha: The survival of the animals is associated with drug treatment.

Table 2.Number of animals that survived a treatment.

	Dead	Alive	Total
Treated	36	14	50
Not treated	30	25	55
Total	66	39	105

Applying the formula above we get:

Chi square = $105[(36)(25) - (14)(30)]^2 / (50)(55)(39)(66) = 3.418$

Before we can proceed we need to know how many degrees of freedom we have. When a comparison is made between one sample and another, a simple rule is that the degrees of freedom equal (number of columns minus one) x (number of rows minus one) not counting the totals for rows or columns. For our data this gives (2-1) x (2-1) = 1.

We now have our chi square statistic (x^2 = 3.418), our predetermined alpha level of significance (0.05), and our degrees of freedom (df =1). Entering the Chi square distribution table with 1 degree of freedom and reading along the row we find our value of x^2 (3.418) lies between 2.706 and 3.841. The corresponding probability is $0.10<P<0.05$. This is below the conventionally accepted significance level of 0.05 or 5%, so the null hypothesis that the two distributions are the same is verified. In other words, when the computed x^2 statistic exceeds the critical value in the table for a 0.05 probability level, then we can reject the null hypothesis of equal distributions. Since our x^2 statistic (3.418) did not exceed the critical value for 0.05 probability level (3.841) we can accept the null hypothesis that the survival of the animals is independent of drug treatment (i.e. the drug had no effect on survival).

Table 3. Chi Square distribution table.

probability level (alpha)

Df	0.5	0.10	0.05	0.02	0.01	0.001
1	0.455	2.706	3.841	5.412	6.635	10.827
2	1.386	4.605	5.991	7.824	9.210	13.815
3	2.366	6.251	7.815	9.837	11.345	16.268
4	3.357	7.779	9.488	11.668	13.277	18.465
5	4.351	9.236	11.070	13.388	15.086	20.517

Chi Square Test of Independence

For a contingency table that has *r* rows and *c* columns, the chi square test can be thought of as a test of independence. In a test ofindependence the null and alternative hypotheses are:

Ho: The two categorical variables are independent.

Ha: The two categorical variables are related.

We can use the equation Chi Square = the sum of all the $(f_o - f_e)^2 / f_e$

Here f_o denotes the frequency of the observed data and f_e is the frequency of the expected values. The general table would look something like the one below:

	Category I	Category II	Category III	Row Totals
Sample A	a	B	c	a+b+c
Sample B	d	E	f	d+e+f
Sample C	g	H	i	g+h+i
Column Totals	a+d+g	b+e+h	c+f+i	a+b+c+d+e+f+g+h+i=N

Now we need to calculate the expected values for each cell in the table and we can do that using the row total times the column total divided by the grand total (N). For example, for cell a the expected value would be (a+b+c)(a+d+g)/N.

Once the expected values have been calculated for each cell, we can use the same procedure are before for a simple 2 x 2 table.

Observed	Expected	|O - E|	$(O - E)^2$	$(O - E)^2 / E$

Suppose you have the following categorical data set.

Table .Incidence of three types of malaria in three tropical regions.

	Asia	Africa	South America	Totals
Malaria A	31	14	45	90
Malaria B	2	5	53	60
Malaria C	53	45	2	100
Totals	86	64	100	250

APPENDIX 3: CHI SQUARE STATISTICAL TABLE

DF	0.995	0.975	0.20	0.10	0.05	0.025	0.02	0.01	0.005	0.002	0.001
1	0.0000393	0.000982	1.642	2.706	3.841	5.024	5.412	6.635	7.879	9.550	10.828
2	0.0100	0.0506	3.219	4.605	5.991	7.378	7.824	9.210	10.597	12.429	13.816
3	0.0717	0.216	4.642	6.251	7.815	9.348	9.837	11.345	12.838	14.796	16.266
4	0.207	0.484	5.989	7.779	9.488	11.143	11.668	13.277	14.860	16.924	18.467
5	0.412	0.831	7.289	9.236	11.070	12.833	13.388	15.086	16.750	18.907	20.515
6	0.676	1.237	8.558	10.645	12.592	14.449	15.033	16.812	18.548	20.791	22.458
7	0.989	1.690	9.803	12.017	14.067	16.013	16.622	18.475	20.278	22.601	24.322
8	1.344	2.180	11.030	13.362	15.507	17.535	18.168	20.090	21.955	24.352	26.124
9	1.735	2.700	12.242	14.684	16.919	19.023	19.679	21.666	23.589	26.056	27.877
10	2.156	3.247	13.442	15.987	18.307	20.483	21.161	23.209	25.188	27.722	29.588
11	2.603	3.816	14.631	17.275	19.675	21.920	22.618	24.725	26.757	29.354	31.264
12	3.074	4.404	15.812	18.549	21.026	23.337	24.054	26.217	28.300	30.957	32.909
13	3.565	5.009	16.985	19.812	22.362	24.736	25.472	27.688	29.819	32.535	34.528
14	4.075	5.629	18.151	21.064	23.685	26.119	26.873	29.141	31.319	34.091	36.123
15	4.601	6.262	19.311	22.307	24.996	27.488	28.259	30.578	32.801	35.628	37.697
16	5.142	6.908	20.465	23.542	26.296	28.845	29.633	32.000	34.267	37.146	39.252
17	5.697	7.564	21.615	24.769	27.587	30.191	30.995	33.409	35.718	38.648	40.790
18	6.265	8.231	22.760	25.989	28.869	31.526	32.346	34.805	37.156	40.136	42.312
19	6.844	8.907	23.900	27.204	30.144	32.852	33.687	36.191	38.582	41.610	43.820
20	7.434	9.591	25.038	28.412	31.410	34.170	35.020	37.566	39.997	43.072	45.315
21	8.034	10.283	26.171	29.615	32.671	35.479	36.343	38.932	41.401	44.522	46.797
22	8.643	10.982	27.301	30.813	33.924	36.781	37.659	40.289	42.796	45.962	48.268
23	9.260	11.689	28.429	32.007	35.172	38.076	38.968	41.638	44.181	47.391	49.728
24	9.886	12.401	29.553	33.196	36.415	39.364	40.270	42.980	45.559	48.812	51.179
25	10.520	13.120	30.675	34.382	37.652	40.646	41.566	44.314	46.928	50.223	52.620
26	11.160	13.844	31.795	35.563	38.885	41.923	42.856	45.642	48.290	51.627	54.052
27	11.808	14.573	32.912	36.741	40.113	43.195	44.140	46.963	49.645	53.023	55.476
28	12.461	15.308	34.027	37.916	41.337	44.461	45.419	48.278	50.993	54.411	56.892
29	13.121	16.047	35.139	39.087	42.557	45.722	46.693	49.588	52.336	55.792	58.301
30	13.787	16.791	36.250	40.256	43.773	46.979	47.962	50.892	53.672	57.167	59.703
31	14.458	17.539	37.359	41.422	44.985	48.232	49.226	52.191	55.003	58.536	61.098
32	15.134	18.291	38.466	42.585	46.194	49.480	50.487	53.486	56.328	59.899	62.487
33	15.815	19.047	39.572	43.745	47.400	50.725	51.743	54.776	57.648	61.256	63.870
34	16.501	19.806	40.676	44.903	48.602	51.966	52.995	56.061	58.964	62.608	65.247
35	17.192	20.569	41.778	46.059	49.802	53.203	54.244	57.342	60.275	63.955	66.619
36	17.887	21.336	42.879	47.212	50.998	54.437	55.489	58.619	61.581	65.296	67.985
37	18.586	22.106	43.978	48.363	52.192	55.668	56.730	59.893	62.883	66.633	69.346
38	19.289	22.878	45.076	49.513	53.384	56.896	57.969	61.162	64.181	67.966	70.703
39	19.996	23.654	46.173	50.660	54.572	58.120	59.204	62.428	65.476	69.294	72.055
40	20.707	24.433	47.269	51.805	55.758	59.342	60.436	63.691	66.766	70.618	73.402
41	21.421	25.215	48.363	52.949	56.942	60.561	61.665	64.950	68.053	71.938	74.745
42	22.138	25.999	49.456	54.090	58.124	61.777	62.892	66.206	69.336	73.254	76.084

43	22.859	26.785	50.548	55.230	59.304	62.990	64.116	67.459	70.616	74.566	77.419
44	23.584	27.575	51.639	56.369	60.481	64.201	65.337	68.710	71.893	75.874	78.750
45	24.311	28.366	52.729	57.505	61.656	65.410	66.555	69.957	73.166	77.179	80.077
46	25.041	29.160	53.818	58.641	62.830	66.617	67.771	71.201	74.437	78.481	81.400
47	25.775	29.956	54.906	59.774	64.001	67.821	68.985	72.443	75.704	79.780	82.720
48	26.511	30.755	55.993	60.907	65.171	69.023	70.197	73.683	76.969	81.075	84.037
49	27.249	31.555	57.079	62.038	66.339	70.222	71.406	74.919	78.231	82.367	85.351
50	27.991	32.357	58.164	63.167	67.505	71.420	72.613	76.154	79.490	83.657	86.661

We could now set up the following table:

Observed	Expected	|O -E|	$(O - E)^2$	$(O - E)^2 / E$
31	30.96	0.04	0.0016	0.0000516
14	23.04	9.04	81.72	3.546
45	36.00	9.00	81.00	2.25
2	20.64	18.64	347.45	16.83
5	15.36	10.36	107.33	6.99
53	24.00	29.00	841.00	35.04
53	34.40	18.60	345.96	10.06
45	25.60	19.40	376.36	14.70
2	40.00	38.00	1444.00	36.10

Chi Square = 125.516
Degrees of Freedom = (c - 1)(r - 1) = 2(2) = 4

Table 3. Chi Square distribution table.

probability level (alpha)

Df	0.5	0.10	0.05	0.02	0.01	0.001
1	0.455	2.706	3.841	5.412	6.635	10.827
2	1.386	4.605	5.991	7.824	9.210	13.815
3	2.366	6.251	7.815	9.837	11.345	16.268
4	3.357	7.779	9.488	11.668	13.277	18.465
5	4.351	9.236	11.070	13.388	15.086	20.517

Reject Ho because 125.516 is greater than 9.488 (for alpha = 0.05)

Thus, we would reject the null hypothesis that there is no relationship between location and type of malaria. Our data tell us there is a relationship between type of malaria and location, but that's all it says.

Chi Square,