OPEN ACCESS

**Scholars International Journal of Law, Crime and Justice**
Abbreviated Key Title: Sch Int J Law Crime Justice
ISSN 2616-7956 (Print) | ISSN 2617-3484 (Online)
Scholars Middle East Publishers, Dubai, United Arab Emirates
Journal homepage: https://saudijournals.com

**Original Research Article**

# Traffic and Mobilty Challenges in Mamfe-Manyu Division, South West Region of Cameroon

Enow Rita Tabi (Ph.D Student)[1*], Ojuku Tiafack (Professor)[1]

[1]University of Yaounde 1, Geography Department, P.O Box 755, Yaounde-Cameroon

**DOI:** 10.36348/sijlcj.2024.v07i04.004 | **Received:** 12.03.2024 | **Accepted:** 17.04.2024 | **Published:** 23.04.2024

***Corresponding author:** Enow Rita Tabi
University of Yaounde 1, Geography Department, P.O Box 755, Yaounde-Cameroon

## Abstract

Increase in private and commercial car ownership in Cameroon like in most developing countries of the world have not kept pace with road infrastructural development. As a consequence, traffic disorder, congestion, late arrival at job sites and increasing number of accidents are some of the social costs road users have to pay. It is against this background that this study sets out to investigate traffic and mobility challenges in Mamfe municipality. This study made use of secondary and primary data sources. The secondary data were gleaned from published and unpublished documents. Primary data were sourced using a convenient sampling technique where 136 questionnaires were administered to 8 sampled communities in Mamfe municipality. Supplementary data were obtained via field observations, interviews and collection of way points using a GPS. After processing and presenting the data, results revealed that key causes of mobility challenges in Mamfe were; traffic jam (25%) inaccessibility to neighbourhoods (19.8%) and insecurity (15.2%). Also, consequences of mobility challenges, were noted to be; drop in transporters incomes (31%) resulting from traffic jam and increase fuel prices, late arrival at work (27%) and a slow turn-over of economic activities (trade and commerce) representing 33% of respondents scores. More so, traffic jam was notice to be very high in the rush hours of the morning between 7:20am to 10:05am. In the evening rush hours between 3:00pm to 9:00pm. Strategies to reduce mobility challenges were basically infrastructural-base (increase road sizes, construct more roads and rehabilitation of dilapidated ones, and a proper road designation). This study recommends private sector participation in the development, provision, maintenance, public-private partnership and modernisation of transport infrastructure and services. These are all lacking in the study area which if effectively implemented will boost urban mobility in the town of Buea and beyond.

**Keywords:** Traffic, mobility challenges, mobility control, Mamfe.



## INTRODUCTION

Transport and transportation is significant and pivotal to the socio-economic development of any nation or society. No wander, it is commonly said; *where a road passes, development follows.* Most sub-Saharan African countries has set up programmes to dis-enclave communities in order to trigger country development and progress. African cities mostly rely on road transport system considering that it handles about 80 % of the movement of goods and passengers respectively within the continent (International Association of Public Transport (UTIP), 2010). This, therefore, means that there is over dependence on the use of road transport system. Furthermore, according to UTIP, (2010) out of the total Africa's road network of 2,423,393km, just over 580,066km (23.9 percent) has been paved which is a serious challenge for traffic and mobility especially in urban areas. Traffic jam and mobility challenges have therefore become a glaring obstacle in most sub-Saharan African countries today. Metropolitan towns of Africa such as; Lagos in Nigeria, Douala in Cameroon among others witness these challenges on a daily bases and almost all hours of the day except at late hours of the night. The United Nations Economic and Social Council (UNESC, 2009) reported that, the use of motorbikes for commercial transport started growing significantly in Douala and Kampala since 2000 due to the inefficiency of the bus and taxi services arising from poor roads. This was basically to solve the problem traffic jam and mobility. Sustainable urban transportation is at the core of a sustainable living; it allows people to move easily, interact socially and goes a long way to ease production and distribution of goods and services (Irem *et al.*, 2020). Njimanted and Mbohjim (2013) underpinned that traffic jam is seen as part of urban economics which for over the years have gained credibility basically because urban centres are expanding and facing lots of challenges;

pollution, increase in fuel consumption, increase in population and a host of issues.

When traffic jam is intense and overdue in an urban centre like the case of most metropolitan towns in Cameroon, it would mean so much for an individual, a community, and the country as a whole. If one day for instance, all the means of mobility available comes to a standstill, it means that life itself will be halted for that period. The direct implications would be that; workers including all essential service staff like doctors, policemen, fire fighters to mention a few will not be at their duty posts. Traders of all varied descriptions too will be unavailable at the various market places. Hence, individual and communal life will be at a state of paralysis for the entire time (Badejo, 2014). Nothing and no one will be in the state of living as no one is able to move, a temporary death of existence. All these scenarios are not merely fabrication of imaginations at one time or the other, had been a witness and victim of all these scenarios.

Challenges of traffic jam and urban mobility are immense in the development process and circulation of goods and services in urban areas. In cases where traffic jam and mobility challenges are high, development becomes stunted by way of late deliveries, inadequate flow of information and services. These challenges usually results from inadequate road infrastructure, expansion of population amidst others. The town of Buea in the South West Region of Cameroon is a victim of circumstance where traffic jam and mobility is crucial. This is linked to limited road infrastructure, increase in vehicle ownership, limited use of collective transport among others. These are of course issues to be given due considerations. Sustainable strategies are therefore necessary to attenuate such impediments on traffic and mobility. Ajay and Fanny (2008) underscored that improving urban public transport in African cities will depend on a strategy of coordinated measures to improve infrastructure, traffic management, service quality, and network reach. This discourse gives an insight and an avenue to discuss and examine traffic and mobility concerns in Buea in order point out sustainable management strategies.

**The Study Area**

Mamfe town is the headquarters of Manyu Division in the South West Region of Cameroon. Manyu Division is made up of four Sub-divisions; Mamfe Central, Eyumojock, Akwaya and Upper Bayang. It lies approximately between longitudes 8˚40' and 9˚20', east of the Prime Meridian and latitudes 5˚05' and 6˚10' north of the equator (Figure 1). Its oval shape thrusts it out north-west ward from Ndian in the south making it a wedge between west and central Africa. This shape imposes upon it an international boundary, which it shares with the Federal Republic of Nigeria to the west. In the north east, it is bounded by the North West Region, to the south by Meme and Ndian Divisions in the South West Region of Cameroon.

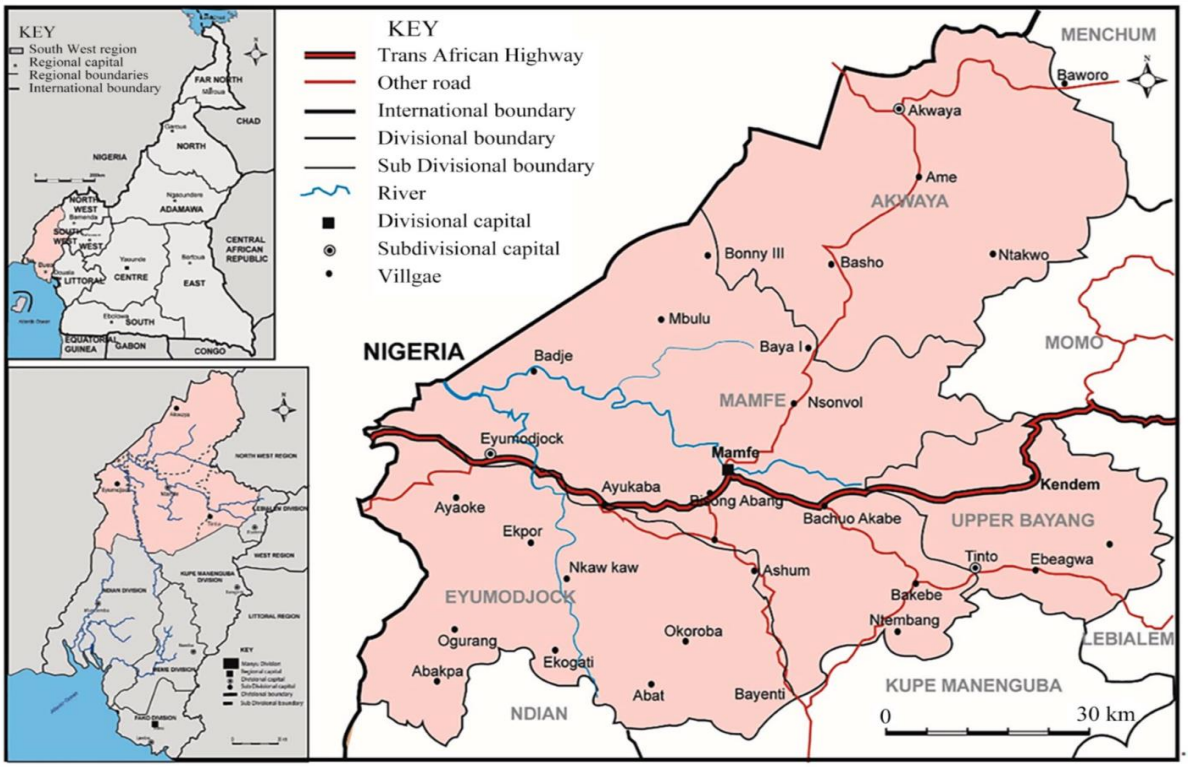


**Figure 1: Location of Mamfe in Manyu Division, south west region of Cameroon**
**Source:** Adapted from the Cameroon Administrative map of 1992

Being one of the oldest Divisions, Manyu was the hub of economic activities in the then Southern Cameroons from the late 1950s to the beginning of the 1960s as all its socio-economic and political life was linked to Nigeria. When this territory joined the Republic of Cameroon through a UN organised Plebiscite in 1961, its status as a federal state run from Buea (Federal capital of West Cameroon) did not change much though this socio-economic and political life became linked to the Republic of Cameroon. The trunk A road that linked Victoria svia Buea, Kumba, Mamfe, Bamenda, Kumbo, Nkambe, Wum and back to Bamenda constituted the life wire of the then West Cameroon economy. The bifurcation in Mamfe (i.e. to Ikom in Nigeria), which hitherto served as the main link between Southern Cameroons and Nigeria made Mamfe and economic centre. When the federal system in Cameroon was abolished in 1972 and the institution of a unitary state, all efforts to maintain and or develop these roads were futile. 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 once more resurfaced as an emerging economic centre, which thus motivated this study (Achankeng, 1995).

## METHODS AND MATERIALS

Traffic jam and mobility concerns in the Manyu municipality is an aspect that have not been given due consideration in most scientific works in social sciences. This study was therefore designed to investigate into such issues using a wide range of research methods and techniques commonly used in social sciences. By this, both qualitative and quantitative data were sourced from secondary and primary sources respectively. As concerns qualitative data, it was gleaned from published and unpublished sources. Some of these documents included; the MCDP, reports, articles, PhD thesis and Master's dissertations and other relevant documents that could meet the data demands of this study. Semi-structured interviews and unstructured interviews were used to collect field data. These interviews were granted to relevant personnel such as; the mayor, drivers (public and private) and individuals spotted trekking on the streets who attested to be residents of the town.

Observations made up an important method of data collection. The circulation of vehicles were observed at different hours of the day (morning-afternoon-evening) this was to appreciate traffic flow and mobility in the town of Mamfe. From this, data on high traffic jam were recorded. These observations were both on-the-spot (with informants) and anthropological in nature in some Motor Parks. During these observations, a digital camera was used to take photos. A random sampling technique was used to administer 136 copies of questionnaires in the sampled quarters in Mamfe town using a convenient sampling sample size.

Quantitative primary data were treated using Microsoft Excel and Statistical Package for Social Sciences (SPSS) where figures and tables were realized containing mean scores, percentages and totals for analysis. As concerns qualitative primary data, it was processed using in vivo data coding method whereby various themes identified from responses of respondents were categories and classified. These themes were drawn from the various categories of codes identified which is an approach commonly used in social sciences (Strauss, 1987 and Cope, 2003).

## FINDINGS AND DISCUSSIONS

Traffic and mobility as earlier underpinned are the main driving forces of effective and efficient functioning or operation of urban centers without which, circulation, mobility and production and distribution becomes deficient. This simply means that in cases where these traffic and mobility challenges abound, sustainable strategies are to be adopted to ensure urban centers operate efficiently and resourcefully. This may even form basis of smart cities, triggers development and an improvement in the general livelihoods. As a point of departure of the results of this paper, it will be important to begin with the trends of traffic and mobility in Mamfe which forms the key variables of this study.

### Forms of Mobility and Traffic Trends

Since the dissolution of the main urban transport organ in Cameroon *Societé des Transport Urbane du Cameroun* (SOTUC), there have been a plethora of issues in the urban transport sector in most urban centres of Cameroon. The Mamfe municipality faces a series of such challenges especially traffic and mobility which is simply linked to the poor state of roads, limited road infrastructure (sizes, parking slots, poor road designation and many others). In Mamfe, there exists inter-urban transport agencies with their park located in mainly where most of them load and discharge goods and passengers. Some of them these agencies are; GUARANTEE EXPRESS, MUSANGO EXPRESS, AMOUR MEZAM, MONDIAL EXPRESS, MORGHAMO EXPRESS amidst others. These agencies transport mainly passengers and only a few quantity of goods into and out of the town. Also, there exist mini buses that transports passengers to neighbouring municipalities and sometimes right to Douala in the littoral region. Most of these mini buses were noted to be operating illegally at the periphery and environs of the Mamfe municipality.

The town is also characterized by yellow taxis that are in charge of circulating passengers within the town. They cover short distances with most of the longest distances costing 350 FCFA as a standard fare. There has been a rapid increase in the used of tri-cycle (commonly referred to as *keke*). These tri- cycle transport varied goods ranging from building materials to food stuffs from the main access roads to the quarters and particularly to areas where access by taxi becomes

difficult. The problem with this means of transport is basically the fact that, the bike riders for most of the part are untrained and do not understand or respect traffic regulations.

Trekking is another way of displacement in this town mostly undertaken by the poor who could not afford to pay for urban taxi. However, some trek for relaxation while others use their personal vehicles for displacement. Field observations revealed that care ownership was high as most people prefer using their personal cars for mobility. This properly is at the bases of frequent traffic jam in the town of Mamfe. However, mobility challenges in Mamfe are many which actually needs to be diagnosed and give it an exposure.

**Causes of Mobility Challenges**

Mobility, defined as all trips made over a given period of time, usually one day, is simply the means to carry out a series of activities that are localized in both time and space (Sub-Saharan Policy Transport Program-SSATP, 2004). In most cases, this mobility confronts lots of challenges linked to so many irregularities in the urban transport system. In Mamfe town, mobility challenges were glaring and were being noted to be caused by a series issues (Table 1).

**Table 1: Respondents opinions on the causes of mobility challenges**

| **Quarters** | **Eff. Resp.** | **Mobility challenges** | | | | |
|---|---|---|---|---|---|---|
| | | Poor state roads | Traffic jam | Increase transport faire | Inaccessibility of neighborhoods | Insecurity |
| Ayukaba | 18 | 4 | 5 | 2 | 5 | 2 |
| Kendem | 22 | 6 | 4 | 3 | 5 | 4 |
| Abang | 16 | 3 | 3 | 4 | 4 | 2 |
| Ekpor | 19 | 8 | 2 | 3 | 6 | 0 |
| Ashum | 9 | 2 | 4 | 1 | 1 | 1 |
| Tinto | 11 | 2 | 5 | 2 | 0 | 2 |
| Okoroba | 17 | 4 | 2 | 3 | 3 | 4 |
| Akabe | 24 | 5 | 8 | 2 | 3 | 6 |
| **Total** | **136** | 34 | 33 | 20 | 27 | 21 |
| **%** | **85.23** | 25 | 24.3 | 14.7 | 19.8 | 15.2 |

**Source:** Field work, 2023

According to table 1, it is crystal clear that poor state of roads (25%) is the main challenge of mobility in the Buea municipality. Field observations revealed that even at the heart of the town most of roads have potholes with stagnant water which makes mobility difficult. Most of the roads observed in Buea were single lane roads and small in sizes approximately 8m. The challenge is that vehicles easily stock up along the streets limiting the free flow of traffic in the town. In addition, sidewalks along the streets for pedestrians are absent event in cases where they exist, they are occupied by road side vendors. This is very common in Mamfe central, Ashum and in most areas where trade and commence exists. This presents a very serious impediment to mobility and the flow of traffic in Mamfe. It is also important to underpin that most of the roads in Mamfe are unpaved and almost unpassable during the rainy season. This makes access into quarters and even neighbouring farmlands problematic (Plate 1).

**Plate 1: The state of roads in Buea**


**Photo 1: A flooded road beside Ntarikon Credit Union-Mamfe**
A taxi almost submerged in water due to flooding on the road because of poor canalisation **(A),** a pole of water on the road **(B)**
**Source:** Authors


**Photo 2: Abandoned old vehicles on road sides**
Abandoned vehicles obstructing circulation along King Street-Mamfe **(C** and **D)**
**Source:** Authors

Even some of the paved roads are frequently flooded (Photo 1). At times vehicles have to wait for floods to subside on the road before circulation can continue. This, by implications limits pedestrian movements and causes traffic jam. In some cases old vehicles were spotted abandoned along streets blocking circulation (Photo 2). These are to be taken into account and integrated when talking about the state of roads.

Traffic jam (24.3%) is an element that cannot be dented when discussing about urban mobility. In Mamfe, traffic jam represents a significant challenge to mobility. This traffic jam is felt mainly in the rush hours of the morning (6am-10am) and evening (2pm-8pm or 9pm). This greatly limits traffic flow as vehicles are being stock up in streets limiting free circulation and even the movement of pedestrians. This was observed to be very recurrent especially on rainy days. This traffic jam was noticed to be linked to the fact that road sizes are small, poor road designation with the absence of traffic police and coordinated light signals where they were supposed to be placed. This hampers mobility and the circulation of goods and services in Mamfe. In the Mamfe Motor Park, the situation was more complicated as vehicles finds it difficult to exit and access the Park especially those going to Ikom and or crossing borders to neighbouring Nigeria.

Investigations revealed that most areas in Ma where Motor Parks exists, there is frequent recurrence of traffic jam. This is explained by the fact that, some many people use such areas for commerce, picking up passengers on departure and arrival. Also, yellow taxis pick-up and drop passengers couple with those using private cars. This is added to the fact that these Parks are small in sizes and very close to road junctions and at the heart of the town such as the case of Mamfe Motor Park. All these are liable to cause frequent traffic jam which was observed to be recurrent. The road network is poor and weak limiting circulation of over the municipality which is the principal cause of traffic jam and mobility concerns.

Also, increase in transport fare (14.7%) resulting from increased fuel prices have equally bog down the rate of mobility in Mamfe. It was noticed that there was a direct relationship between transport fare and mobility. This affects even vehicles owners who cannot afford to fuel their vehicles to distant places as before. For instance, urban transport fare for taxi increased 200FCFA in 2015 to 250FCFA in 2018 and from 250FCFA to 300FCFA 2023 and to 350FCFA in 2024. This systematic increase in urban taxi fare is the direct implication of increased fuel prices. This have made it difficult for some people to pay transport fares especially the poor. Thus, some have to trek for very long distances before arriving at the destinations. This also accounts for a challenge faced by mobility. However, some people trek not necessarily because they are poor but because of relaxation or for sporting reasons. Again, it was observed that most neighborhoods in Mamfe municipality were not accessible due to poor roads. This was particularly important during rainy days. The muds of the streets were observed to in huge amounts which limit both vehicles and people using the roads.

The two Anglophone regions of Cameroon; Northwest and Southwest Mamfe inclusive are facing serious socio-political crises since 2016. These crises are characterized by road blockages, destruction of road infrastructure such as; bridges, breaking of paved road and burning tires on the way to scare the population. More so, the crises are also branded by ghost town days which goes a long way to limit circulation and the flow of goods and services. This simply means that, in such days which are highly respected by the inhabitants, transportation is halted and economic activities are at zero. This has gone a long way to cripple transport and mobility activities and many other activities in the municipality which is highly affected by the crises. However, the intension here is not to focus on the crises but how it has stand as a barrier to transport efficiency and effectiveness in the study area. In most areas, roads are being rendered almost unpassable by the armed gangs. According to interviews, the armed gangs placed stones and tree stumps on the road to stop circulation which can go for days. Imagining such conditions in the transport sector for over 7 years, one can be contented that transport and its related activities have really been disturbed from effective operation and functioning which in general limits mobility. It is noteworthy to underscore that these crises have play negatively on the development of the area through; limiting mobility, trade and commerce, and the general flow of goods and services. Key causes of mobility challenges in Mamfe Municipality linked to road designation and infrastructure were noted to be many, visible and more practical during field observations. They included;

- **Limited parking lots and poor parking on streets**

In most cases, urban roads in Mamfe do not have parking lots. In this case, vehicles are forced to park periodically beside the road couple with the fact that the road sizes are very small. Such cases were identified in Mamfe Moto park, Ashum, Ekpor to mention a few. This goes a long way to create congested roads thus, traffic jam and mobility difficulties even those using the road on foot. Parking along major streets is a very common phenomena in Mamfe which limits mobility. The council authorities sometimes results to giving penalties to those who park carelessly along the streets. It is a truism that it has bring about a degree of responsibility in parking vehicles in the town but however, this has not resolve the problem because it persist. At times one needs to park far away and trek for a certain distance before accessing where he/she needs to carry out transactions. This is an issue to mobility that cannot be under looked.

- **None adherence to traffic code and regulations**

Some drivers were observed to be nonchalant and disobedient to the traffic code. In most busy Round-abouts or road junctions, observations revealed the

violation of the traffic coordinated light signals mostly commercial vehicles and particularly, clandestine vehicles. Interviews with some of these drivers bared that, they are rushing to catch-up with time and work more money. It is clear that such reckless behavioural attitudes exhibited by drivers are liable to cause traffic jam which may not necessarily should have happen. This may also results to accidents blocking the entire road from circulation. Such scenarios were noted to be very common in Ashum, Mamfe central and most road junctions as earlier noted. It seemed in some cases that some drivers cannot even read road signs and symbols. This makes their driving credentials questionable. It is worth nothing that, this is a serious challenge to mobility in the town of Mamfe.

❖ **Dysfunctional traffic lights and absence of traffic police**

Even when the traffic lights are functional the traffic police are always there to ensure effective respect of traffic code and regulations. What more if the traffic police and traffic lights are absent or dysfunctional? The direct impact could only be that, traffic jam will arise and vehicles will be stuck up on the road. In most road junctions in Mamfe town, there is a gross absence of the traffic police reason for traffic jam and mobility issues (Photo 5).

**Photo 5: A circulation scene without traffic lights nor traffic Police**
**Source:** authors, 12/09/2023

Even in some cases where they are present, some result to the collection of petty bribes and forget about their objective of traffic control. Most areas were identified without traffic lights while other were dysfunctional. These poor road designations are at the origins of traffic and mobility issues in Mamfe which have far reaching consequences on both economy and individuals. All these are not mere imaginations or fabrications but observations from the field.

❖ **Limited use of new technological advancements in the transport sector**

Of recent, the role of technology in the transport sector have become very significant. There have been an increasing use of autonomous vehicles in most develop countries and some Asian countries which has help to foster and ease mobility. It is common in China, Japan and some European countries and America. This is contrary in developing countries where they mostly depend on hand-driven (manual) vehicles thus limiting mobility. In Mamfe municipality, these new technological advancements are not exploited in the transport sector which is a problem to mobility. It is therefore important to integrate such technologies in the transport sector to curtail the challenges faced in the sector.

❖ **The influence of COVID-19 on traffic and mobility**

Though in the post COVID-19 period, the influence of CODVID-19 on traffic still remain relatively high. The number persons per vehicle in public transport has reduce without a standard corresponding increase or improvement in transport infrastructure. This has reduce the degree of mobility and traffic especially in the town of Buea where the influence of the COVID-19 was high. More so, most people are not willing to travel because of fear of contacting the disease in crowded buses. Yair, (2012) underscored that even when a vaccine for COVID-19 is available, a significant percentage of the population will still be afraid to travel in crowded buses. Citing Ali, (2020) noted that some people will still be afraid that the vaccine is not effective enough, and some will be afraid of other viruses. Till this moment, it is not very clear whether the effects of COVID-19 will disappear so soon. These effects on the transport sector may go on a little bit longer.

**Ramifications of Mobility Challenges**

Either using urban roads on foot or by other forms of displacements, there exist a series of consequences that one faces. In Mamfe, these consequences are glaring and transcends from individual to the entire municipality. These consequences affects the socio-economic and the general livelihoods of the people. It is worth nothing that proper urban circulation

is wealth itself for transporters, service delivery, timely arrival at work places, flow of information, trade and commerce and much more. Whenever mobility is interrupted by any means, there is a dysfunctions in the proper functioning of urban life in general. According to the survey instrument administered in Mamfe, it revealed that mobility challenges in has a wide range of consequences especially on the socio-economic lives of the people; affecting timely arrival at work places, significantly affecting transporters incomes among others (Figure 3).

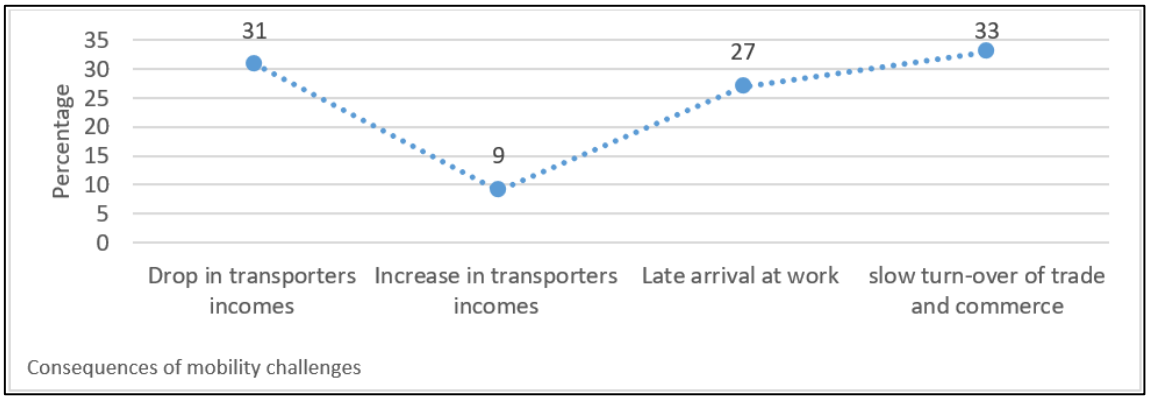


**Figure 3: Respondents views on consequences of mobility challenges**
**Source:** Field data, 2023

According to figure 3, it is seen that the dominant consequence of the mobility challenge in Buea is the slow turn-over of urban economy (33%) and of course those of the neighbouring communities and beyond since transport is never stagnant. This is directly followed by a drop in transporters income (31%). Late arrival at job sites especially white-collar workers 27% also stand out as one of the consequence of mobility challenge in Mamfe. Respondent's score on the increase of transporters income was 9% which was the least. Some of the informants argued that transporters who ply bad and unpaved roads especially where socio-political crises are still hot, transporters charge higher pay packages for the risk involved. This helps them to register higher incomes. However, whatever the arguments mobility challenges cannot actually dish out positive consequences per se.

In detail, data collected on transporters income revealed that during such challenges, their daily incomes drop because they have to spend much time on traffic burning much fuel without a corresponding income. According to a taxi driver in Mamfe Park, customers are always willing to pay but traffic and other challenges could not give way for them to work effectively reason why their incomes drops. The informant explained that, these phenomenon is usually very common at rush hours of the morning and evening (Table 2). The number of trips are also reduced since they cannot easily circulate in town due to traffic jam or poor state of roads.

**Table 2: Frequencies of trips and income of taxi drivers due to traffic jam**

| Working days | Expected no. of trips (off peak traffic hours) | Actual no. of trips (peak traffic hrs) | Expected income (CFA) (off peak hrs) | Actual income (CFA) (peak traffic hrs) | Drop in income (CFAF) |
|---|---|---|---|---|---|
| Monday | 20-30 | 20-25 | 6000-9000 | 4000-6000 | 2000-3000 |
| Tuesday | 20-30 | 20-25 | 6000-900 | 4000-6000 | 2000-3000 |
| Wednesday | 20-30 | 20-25 | 6000-9000 | 4000-6000 | 2000-300 |
| Thursday | 20-30 | 20-25 | 6000-9000 | 4000-6000 | 2000-3000 |
| Friday | 20-30 | 20-25 | 6000-9000 | 4000-6000 | 2000-300 |
| Saturday | 15-20 | 10-15 | 5000-7000 | 4000-5000 | 1000-2000 |
| Sunday | ------- | -------- | -------- | ------- | ------ |

**Source:** Field data, 2023

Table 2 shows that drivers or transporters miss out about five trips on average during traffic hours which directly affects their incomes missing out about 3000FCFA on average. From Saturday, it is already weekend and most of the drivers or commercial transporters are taking their rest. This situation is made worst in Mamfe because many vehicles coming from neighbouring Nigeria. Bikes can wangle and easily find their way out of traffic jam to facilitate mobility. However, commercial motorbikes have been tagged with disorder and non-adherence to the traffic code. For mini buses and clandestine vehicles in Mamfe, the case is similar (Table 3).

**Table 3: Frequency and incomes levels of mini-bus drivers**

| Working days | Expected no. of trips (off peak traffic hrs) | Actual no. of trips (peak traffic hrs) | Expected income (CFA) (off peak hrs) | Actual income (CFA) (peak traffic hrs) | Drop in income (CFA) | Percentage drop in incomes |
|---|---|---|---|---|---|---|
| Monday | 16-20 | 10-15 | 8000-12000 | 6000-9000 | 2000-3000 | 25 % |
| Tuesday | 16-20 | 10-15 | 8000-12000 | 6000-9000 | 2000-3000 | 25 % |
| Wednesday | 16-20 | 10-15 | 8000-12000 | 6000-9000 | 2000-3000 | 25 % |
| Thursday | 16-20 | 10-15 | 8000-12000 | 6000-9000 | 2000-3000 | 25 % |
| Friday | 16-20 | 10-15 | 8000-12000 | 6000-9000 | 2000-3000 | 25 % |
| Saturday | 6-10 | 5-10 | 6000-8000 | 5000-7000 | 1000-2000 | 25 % |
| Sunday | 5-7 | 5-7 | 5000-6500 | 4000-5500 | 1000-1500 | 20-23 |

**Source:** Field data, 2023

Table 3 shows that trips expected to be covered by mini-bus drivers and other clandestine vehicles reduces significantly during traffic peaks averages by four as well as their incomes which drops averagely by 4000 FCFA. This represent a percentage of 25. In an interview conducted with mini-bus driver who works on the Mamfe-Kumba-Buea road axis explained to the study that when he lives the house he expects a particular amount but when traffic jam is felt in the course of the day, he will not have up to the expected amount. This represents a serious consequence of mobility challenge in Mamfe.

Apart from a drop expected number of trips and incomes of urban transporters, late arrivals and irregularities at work are other prices urban dwellers in Mamfe have to pay the challenges of urban mobility. Respondents ascertained to the study that going to jab site late is something common if you do not get up early, well depending the time you are going to work. Most importantly, those going to work in the morning hours (6:30am to 7:30am). Going to work late and returning late in the evening are very common consequences of mobility challenges in Mamfe (Table 4).

**Table 4: Increase travel time and irregularities at work as a result of traffic jam**

| Occurrence of traffic congestion morning rush hours | | | | Traffic congestion evening rush hours | | |
|---|---|---|---|---|---|---|
| **Working hours** | **Frequency of traffic** | **Lateness** | **Time difference (l:ateness-working hours)** | **Time** | **Frequency of traffic** | **Delays** |
| 7:00 | High | 7:20 | 15minutes | 2:00-3:00 | High | High |
| 7:30 | High | 7:50 | 20 minutes | 3:00-4:00 | High | High |
| 8:00 | Very high | 9:00 | 60 minutes | 4:00-500 | Very high | High |
| 8:30 | Very high | 9:30 | 60 minutes | 5:00-6:00 | Very high | Prolonged |
| 9:00 | Very high | 10:00 | 60 minutes | 6:00-7:00 | Very high | Prolonged |
| 9:30 | Very high | 10:05 | 65 minutes | 7:00-8:00 | High | High |
| 10:00 | High | 10:40 | 40 minutes | 8:00-9:00 | High | High |
| 10:30 | High | 11:30 | 30 minutes | 9:00-10:00 | Moderate | Average |
| 11:00 | Moderate | 11:05 | 10 minutes | 10-11:00 | Moderate | Average |
| 11:30 | Moderate | 11:03 | 5 minutes | 11-12:00 | Low | Non |
| 12:00 | Moderate | 12:02 | 5 minutes | - | - | - |
| 12:30 | Moderate | 12:00 | ------- | - | - | - |
| 13h00 | Moderate | 13h00 | ------- | - | - | - |
| 13h30 | Moderate | 13h00 | ------- | - | - | - |
| Total | | | 370 | - | - | - |

**Source:** Field data, August, 2023

Table 4 shows that due to high traffic, workers frequency lost out some minutes, hours or even above of the work time which in most cases, they are being sanctioned by their proprietors. As earlier noted, these are consequences of mobility challenges that they have to pay. It is seen from the table that during the morning hours 7:00am to 7:30am traffic is simply being high but from 8:00am it becomes very high since most people are the streets going to work. To this effect, workers loss up to an hour and more because of traffic jam. Similarly, during evening rush hours, it becomes high again, and very high between 4:00pm to 7:00pm or exceeds at times. So, inhabitants have to adapt to these knew trends to cope.

Going by foot too has its own price to pay. In most cases sidewalks are occupied by road vendors as earlier underlined. This makes it even more difficult to trek in order to avoid traffic in the town of Mamfe. In most of the roads in town especially in Mamfe Park and Ashum there unhealthy conditions that can limit trekking along the streets (Figure 4).

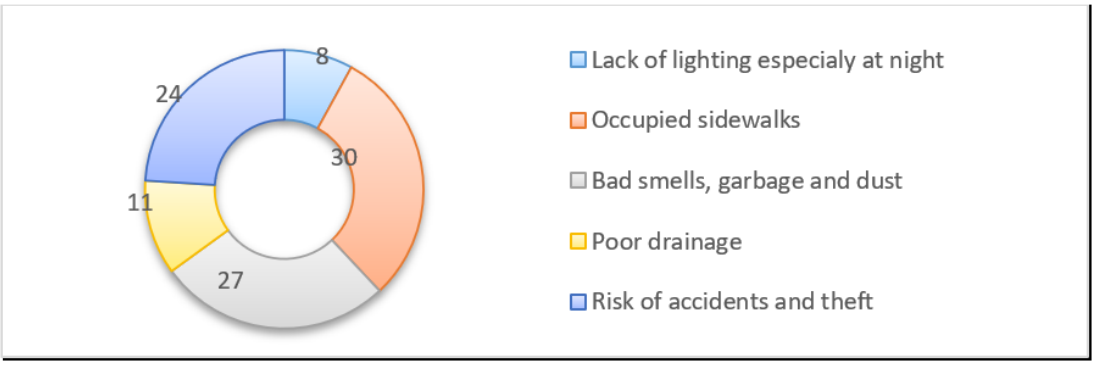


**Figure 4: Consequences of urban mobility on foot**
**Source:** Field data, 2023

Figure 4 shows that when using urban transport roads on foot, one faces a series of categorized consequences which makes mobility even more challenging. All these are unhealthy situation that one meets when attempting to use the urban roads on foot (Photo 6). In some cases, it is associated with assaults and risk of accidents. So, even attempting to use the road by food is remains a difficult task. This is a clear indication that actions are supposed to be taken to make urban areas especially Mamfe conducive both vehicles and pedestrians. SSATP in 2004 working in the city of Douala noted that residents of isolated districts stress on problems such as; the issue of lighting, garbage and the poor condition of the roads. These are not issues to under look but to take concrete actions to make our cities sustainable in terms of mobility and ease of circulations.

All these are situations very unhealthy in to urban mobility. Such do not only block the road but they cause traffic and causes both land and air pollution. These are all issues to urban mobility and traffic that needs due considerations which must not be taken for granted. Thus, it important to device sustainable strategies to deal with such issues if we have to live in sustainable and smart cities that we are aiming in future.

**Strategies to Overcome Traffic and Mobility Challenges**

Urban mobility and traffic management are key and integrated aspects of urban life and economy which must be well strategized to advert any undesired issues and irregularities. Thus, stakeholders involved most be alert and observant to design policies and strategies to resolve urban mobility challenges. SSATP, (2021) underscored that political decision-makers of a willingness to transform the urban mobility system has always been the trigger for an ambitious policy. It further notes that the inefficiency of their city's mobility system and referring to international examples, presidents, ministers or mayors of major cities who have initiated a transformation process have always been a long-term vision. It is worth noting that most sub-Saharan African countries have setup their various strategies for economic emergence, Cameroon inclusive come 2035. By this, urban transport policies and planning most be effectively integrated in the process of emergence which in most cities and municipalities, visions and strategies to modernize and transform urban traffic and attenuate mobility issues are still blurred. Strategies to overcome mobility and traffic challenges and of course in the national territory are many include among others;

Key mobility and traffic challenges identified during field surveys were infrastructural based issues which needs much amendments. In most cases, there were no coordinated light signals to regulate traffic flow. This explained the reason for frequent occurrence of traffic jam in most parts of the town. Thus, installing traffic lights in areas with high traffic may just be a strategy to regulate traffic and overcome mobility challenges in such areas. In most areas of the town, field surveys noted a poor road designation which leads to urban disorder in terms of circulation and mobility. So, designating the road properly such as; crossing lines, traffic lights in necessary round-abouts maybe a good and a sustainable strategy to deal with mobility and traffic challenges.

More so, Mamfe is a town having more of a single lane road running across the town. Thus, the road network is insufficient and poor as some areas are paved and others not. Also, road sizes are small with road side vendors selling along the streets even on sidewalks which is a great challenge to mobility and traffic circulation. Clearing off road side vendors to defined markets will increase the initial road sizes to an extent and will make mobility more flexible. It is also important to repair broken road infrastructure where they are dilapidated such as; filling of potholes, repairing of traffic lights where they are non-functional etc.

In terms of insecurity which limits mobility, street lights can be implanted on streets where they are absent especially on quarter roads which are the most unsecured especially in the late hours of the evening. Also, having a police patrol force in the town is very important to limit insecurity which a paramount issue in most towns in Cameroon. This is because insecurity makes road users scared of using the road at late hours of the evening thus, limiting mobility.

Removing waste bins, from streets which gives terrible smells along streets is very important. Some of these bins at times are over filled leaving the waste right on the road making passage of pedestrians difficult. This is another challenge of urban mobility that cannot be taken for granted. Thus, waste management bodies in city councils have to design policies to deal with this waste on the streets. More so, the municipal council should of Mamfe should device strategies and policies to deal with outdated structures on the road obstructing mobility. In clear terms, urban renewal policies should be effectively implemented both by individuals and communal authorities to guarantee success.

## RECOMMENDATIONS

Encouraging the private sector participation in the development, provision and even the maintenance and modernization of transport infrastructure and services is very important. This goes especially to those operating in the transport sector such the metropolitan travelling agencies present in most towns and cities of Cameroon.

The exploitation of the new technological advancements especially in the transport sector can be very important. For instance, the building of the autonomous vehicles that will carry a few person and be more efficient can go a long way to resolve traffic and mobility challenges in most African towns especially in Mamfe town. This will also make the cities to be smart with the high use of technology.

The promotion and collaboration of intergovernmental, public-private partnership, transport operators and users and other key operators in the sector. This can go a long way transform and make urban traffic and mobility more efficient.

Improve accessibility to neighbourhoods, roads connectivity especially to rural communities and modernize transport infrastructure by strengthening institutions and agencies setting the standards to monitor, enforce and manage transport systems.

## ACKNOWLEDGEMENTS

Great thanks to all those who assisted in data collection. I call to mind Tih Thierry and Melanie Berinyuy. Appreciation also goes to all drivers especially those in Mamfe Motor Park who collaborated to ensure the success of this study. Heartfelt gratitude are extended to the Mamfe municipal authorities for their unreserved cooperation.

## REFERENCES

1. Achankeng, E. (1984). Mamfe. Growth Experiences of a Cameroon Frontier Town. Yaounde: University of Yaounde.
2. ACHANKENG, E. (1995). Mamfé: changing urban growth trends in a Cameroon border town: dependency or independence?. *Revue de géographie du Cameroun*, *12*(1), 47-61.
3. Kumar, A., & Barrett, F. (2008). Stuck in traffic: Urban transport in Africa. *AICD Background paper*, *1*.
4. Ali, I. (2020). The covid-19 pandemic: Making sense of rumor and fear: Op-ed. *Medical anthropology*, *39*(5), 376-379.
5. Badejo, B. A. (2013). Effective intermodal and integrated system of transportation: panacea for African economic integration and development. Department of Geography and regional planning, faculty of the social and management sciences, Olabisi Onabanjo University, Ogo-Iwoye, Ogun State. Nigeria.
6. Cope, M. (2003). Coding qualitative data. Part III: *Interpreting and communicating qualitative research.* 543015_14_ch14.indd. Pp 279-294
7. Batool, I. (2020). A Policy Move towards Sustainable Urban Transport in Pakistan: Measuring the Social, Environmental and Economic Impacts of Lahore BRT System Irem Batool, Muhammad Irshad and Muhammad Abid. *Lahore Journal of Economics*, *25*(1), 27-57.
8. Njimanted, G. F., & Mobit, M. O. (2013). Determinants of Traffic Congestion in the Metropolis of Douala, Cameroon: An integrated approach. *Journal of the Cameroon Academy of Sciences*, *11*(2&3), 209-222.
9. PNDP (2015). Buea Council Development Plan. Elaborated with the technical support of GREMPCO. Cameroon.
10. DOUALA, I. (2004). Poverty and Urban Mobility.
11. World Bank. (2022). African Cities Facing the Urban Mobility Crisis: The Challenge of National Mobility Policies in Benin, Burkina Faso, Mali and Togo Confronted with the Proliferation of Motorized Two-Wheelers-Transnational Report.
12. Strauss, A. L. (1987). *Qualitative analysis for social scientists*. Cambridge university press.
13. UITP - International Association of Public Transport (2010). Public Transport in Sub-Saharan Africa: Major trends and case studies. Trans-Africa Consortium, Brussel. 18p.
14. UNESC - United Nations Economic and Social Council. (2009). Africa Review Report on Transport. Addis Ababa, Ethiopia Sixth Session of the Committee on Food Security and Sustainable Development (CFSSD-6)/ *Regional Implementation Meeting* (RIM) for CSD-18. ECA/FSSD/CFSSD/6/12.
15. Yair, W. (2020). Intelligent Transportation Systems along with the COVID-19 Pandemic will Significantly Change the Transportation Market. *The Open Transportation Journal*. DOI: 10.2174/1874447802115010011, 2021, 15, 11-15 available at: https://opentransportationjournal.com