Road İnfrastructural Development Remedial Strategies as a Palliative to Congestion in the Bamenda Metropolis

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Abstract

Metropolisation in the city of Bamenda has triggered wanton traffic congestion and delivery delays. This paper introduces road infrastructural development remedial strategies as a panacea to congestion and easy circulation. Some 276 questionnaires were administered to inhabitants of the city in order to have first-hand data on the ramifications of traffic congestions to daily activities. The Geographical positioning System was used to capture data used to realise maps as solutions to traffic delays. Results from findings adhere to the fact that, the nature of roads within the city of Bamenda is bad due to inadequate maintenance, poor drainage as well as low quality material used for construction which renders the roads vulnerable. The traffic flow is very high in the morning and evening periods and movement is unbearable during such periods. Anthropogenic influences from roadside vending to poor parking as well as unauthorized bus activities have aggravated the congestion situation. The city is therefore faced with a fall in productivity from stagnant economic activities caused by congestion, extending to high cost of transport fares and pollution. This paper recommends that a new and advanced traffic pattern with stringent rules to control movements be introduced in the city of Bamenda.

Keywords: Road infrastructure, development, remedial strategies, traffic flow, congestion, palliative, Bamenda metropolis

1. INTRODUCTION

The Metropolisation of sub-Saharan African towns can be considered to be a mixed blessing. This is because it has not only triggered growth to the towns, but has as well exposed these towns to vices such as traffic congestion and delivery delays which leaves much to be desired. These problems emanate from inadequate road infrastructural development, little and uncontrolled traffic patterns as well as anthropogenic pressure which has paralysed the smooth functioning of such cities (Ntoban and Fogwe, 2019). One of such recurrent problems is traffic congestion which is responsible for numerous traffic delays and consequently late delivery time for goods and services. This is observed in the Bamenda Metropolis, which is experiencing anthropogenic as well as spatial expiation pressure. The effects of this pressure are perpetually being felt in the transport sector which is gradually paralysing the smooth development of the city of Bamenda. This article therefore seeks to address the continuous traffic stagnation observed in Bamenda that has rendered movements unbearable nowadays. The paper adheres to the fact that the inadequate road infrastructure, little available roads as well as poor maintenance amongst others are the cause of the traffic congestion and delivery delays observed in the city. The few traffic patterns are highly inaccessible and are responsible for traffic congestion. The paper introduces road infrastructural development remedial strategies as a panacea to congestion and easy circulation.

Bamenda is located between longitude 10°82′19″E and 10°15′19″E and latitude 5°57′40″N and 6°01′62″N at an elevation of 1413m above sea level. The city covers a surface area of 71.23 square kilometres and it is the administrative seat of Mezam Division, the Regional Headquarters of the North West and the largest town in the North West region. It is bounded by Bafut to the north, Tubah to the east, Santa subdivision to the south, and Bali and Mbengwi to the west (Figure 1).

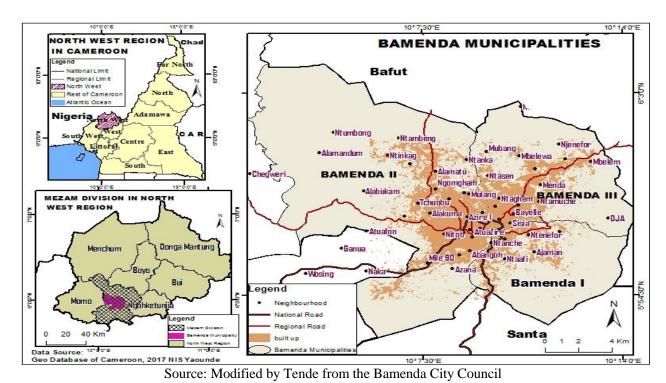


Figure 1: Location of the Bamenda Metropolis in the North West Region of Cameroon

Bamenda is a socio- economic, political and commercial hub for the region and also connects other suburban areas. It has three sub divisional councils. The urban part of the city is made up of three villages which are, Mankon, Nkwen and Bamendakwe.

2. LITERATURE REVIEW

This paper draws inspiration from the numerous literatures written on road infrastructure and traffic flow. It articulates on some which were of uttermost interest to the study and draws the line between the ideas of other authors and what comes in new as contribution to science. Motorbike transport is used as a major source of traffic congestion palliative in Cameroon (Fogwe, 2020), as it facilitates movement from one place to the other. This transport sector however has its own drawbacks which makes it difficult to satisfy the public. Infrastructure is key to economic development as it relates to the construction, management, and regulation of key development projects (Tanzina & Nita, 2020). It is thus imperative to have a good transport infrastructure in order to boom economic growth in an area. Without which, congestion becomes the order of the day and delays occur.

Traffic congestion stands to be a major problem in sub-Saharan emergent towns (Agyapong & Kolawole, 2018). This extract from a case in Accra, Ghana seems to be the same as found in Bamenda, Cameroon. Traffic congestion is the state of traffic where, the travel demand exceeds road capacity (Memmott & Young, 2008). It is an impedance of vehicles imposed on each other due to speed flow relationship in conditions where the use of transport system approaches capacity. This condition is not constant because traffic demand may vary significantly depending on the season of the year, the day of the week and the time of the day. It is therefore a relative phenomenon where there is a difference between road performance and road users expectation caused by multiple factors, some being unique to a given location. Since a variety of reasons can be advanced for congestion, its perception as well varies from one reason to the other.

Depending on different reasons, congestion can be classified into recurring and nonrecurring congestion (Njengoue Ngamaleu, 2017). Recurring congestion occurs regularly, mostly due to the excessive number of vehicles during peak hours. On the other hand, unpredictable events such as weather, work zones, incidents, and special events are the causes of nonrecurring congestion. These two causes of congestion are observed in the

Bamenda metropolis especially in the Hospital Round About, Sonac Street and Mobile Nkwen neighbourhoods. This amounts for the recurrent congestion. In order to reduce, if not curb traffic congestion in Bamneda, this paper introduces road infrastructural development remedial strategies.

3. MATERIALS AND METHOD

Data collection was done through primary and secondary sources for a qualitative and quantitative research. In the primary data collection process, some 276 questionnaires were administered to households, service providers, road users and administrative authorities to gather first-hand information on the state of roads in Bamenda. This was distributed to inhabitants of Bamenda I, II, III municipalities to reduce bias in the process of data collection. A total of 48 questionnaires were administered to the inhabitants of Bamenda I, 118 to those in Bamenda II and 110 to the Bamenda III inhabitants respectively. Field observation in the primary data process was done to capture images of the road infrastructural problem and pictures for results presentation and analyses. Focus group discussions were done with the administrative staff of the ministry of Urban Development and housing in Bamenda, road contractors and workers in the ministry of Public works, the Municipal police workers at the service of Transport and Traffic Circulation at the Bamenda City Council. The purpose was to obtain information on their experience in managing the urban road network development, road construction dynamics and traffic control ranging from driver's behaviours, pedestrian responses and the forecast of the traffic situation of the city by 2035. Further primary data was collected through interview sessions with administrative authorities of the city. The purpose was to obtain information on how key stakeholders construct narratives of the changing urban road infrastructures, traffic situation of the city and its implications on planning and the daily activities of the city dwellers.

An in-depth documentary research was done in the form of secondary data collection. Documents on planning on Bamenda and other areas were consulted to understand the stakes involved in planning and what could be done to upgrade and develop the road infrastructure. The technical section, the department of urban development of the Bamenda city council and a host of other services were consulted in the course of documentary research. Data collected through primary and secondary sources yielded both qualitative and quantitative treatment and analysis. The Microsoft Excel Spread sheet was used to treat statistical data and generated tables and charts for analysis. The GPS was used to collect points for map realisation. This was done through the digitalisation and superimposition of data collected and updating of existing data for map production and results. ArcGIS 10.0 and AutoCAD Map 3D soft wares were used in the realisation of maps in the research work. The data was treated and analysed and presented as results for discussions.

4. RESULTS AND DISCUSSIONS

Traffic congestion and delivery delays in the Bamenda metropolis can be reduced at best if the road infrastructure and traffic patterns are properly managed and upgraded.

4.1: The state of roads and influence on congestion in the Bamenda Metropolis

The nature of roads in the Bamenda metropolis as at 2023 leaves much to be desired. The roads are in a constant dilapidating state which accounts for a greater percentage of the traffic congestion observed. Analyses from field data and other documentary sources revealed that the nature of roads in Bamenda is bad (Figure 2).

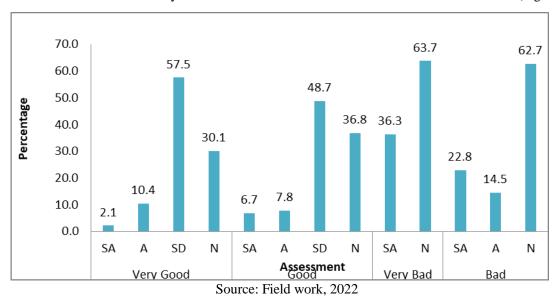


Figure 2: Nature of roads in the Bamenda Metropolis

Results from findings in figure 2 revealed that the nature of roads is bad (A) as respondents agreed to the assessments done. This is opposed to their response of strongly disagreeing (SA), that the roads are good or very good. Further results from findings revealed that several factors can be associated to the bad nature of roads in Bamenda. The first of such factors is the drainage system of the current roads in the city. Road construction without proper drainage is tantamount to destruction (Fozong et al, 2023). This is observed in the roads in Bamenda as the drainage is inadequate and filled with litter from indiscriminate waste disposal leading to uncontrolled flow of water on the roads. As the roads are exposed to water, damages occur and render them impracticable. This amounts for the wanton congestion and traffic delays.

The second factor which serves as a cause to the bad roads in Bamenda is floods. As a result of the poor drainage system of roads, and due to changes in the climatic situation of the area, floods occur more than usual and cause unadorned damages. The long and unusual wet periods, with heavy down pour of rain than normal exposes the city and roads in particular to flood for longer hours of the day. This damages the roads as they are left with potholes that reduce movements and thus cause traffic congestion (Plate 1).

Plate 1: Damaged and pothole roads in the City of Bamenda





Tende, 2022

Potholes that render movement difficult in Total Nkwen in A, and which have caused users to avoid the road in Meta Quarters in B. Despite this deplorable nature of the roads, movement is still imperative which thus causes congestion and delays.

Associated to poor drainage system and floods is inadequate maintenance of the existing roads in the city. The construction and maintenance of roads in Cameroon are strictly done by the State (Yango, 2014). Owing to this stringent law, it is impossible for the population to neither step in and construct roads nor maintain them. This explains why numerous roads in Cameroon in general and those in Bamenda in particular are suffering from maintenance deficiency. The roads are therefore left at the mercy of unhealthy weather conditions and anthropogenic pressure which increase their dilapidating state. The resulting effect is the numerous bad roads found in the city which causes congestion and traffic delays.

Low grade quality materials for construction are yet another cause for the nature of roads in the Bamenda metropolis. A majority of the roads constructed in the city are being done with low quality materials which are less resistant and vulnerable to traffic pressure. This is the cause of the rapid bad roads observed in the city after short periods of construction. These materials when affected by heavy down pour later get dissolved and allow the roads in a dilapidating manner. This accounts for the poor nature observed in the area and thus a low level of infrastructural development.

The state of the roads in Bamenda has rendered the level of infrastructural development to be graded as low. Results from findings adhere to this based on the fact that the roads are constructed with low quality materials and are not adequately maintained. It is further aggravated by the lack of skilled workers employed to perform the construction because of limited funding and to a greater extent misappropriation accrued. The effects of this poor infrastructure have triggered enormous economic losses (Figure 3).

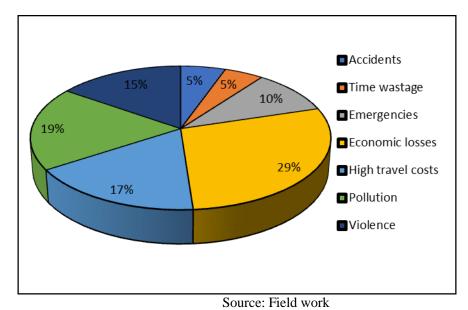


Figure 3: The effects of poor road infrastructure in Bamenda

Analyses from figure 3 show that 29% of economic losses are incurred due to bad roads in the city. This can be explained from the numerous delays incurred in the transportation of goods and services from one place to the other. The economic delays off course is accompanied by high cost of travelling as movement is difficult, long periods of waiting as time is wasted on the roads as well as wanton accidents from impatient road users. The circle of disorder is rather on a rise justifying the need to intervene. The state or nature of the roads in the Bamenda metropolis is bad with potholes in Sonac Street, City Chemist round about, Small Mankon to Nghomngham, Mile 2 junction to Mile 4, T-Junction to Meta quarter, Old Town to Ayaba Street as well as Finance junction to Mobile Nkwen neighbourhoods.

4.2: Traffic flow and influence on movements in Bamenda

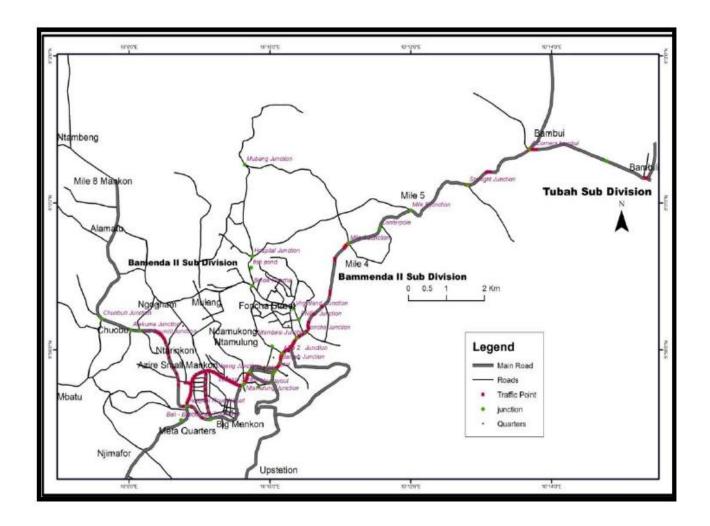
It is obvious that the state of roads in Bamenda is bad and has thus affected movements. This has as well influenced traffic flow in the city which leaves much to be desired. The traffic flow in the city is low due to bad roads and poor road patterns which is tantamount to congestion and delays. Field analysis of traffic flow in the city revealed that more delays are experienced in the morning and evening periods (Table 1). The traffic flow is high in the morning since it is the period when so many people leave their houses for work, schools, and businesses and will all need a means of transportation to these various destinations. The same scenario, high traffic flow is observed in the evenings due the return of population from work, businesses, schools and other activities. During mid-days, the level of traffic flow is usually low since most people are at their job sites, in schools, markets and their business site and just a few circulate within such periods. The traffic flow which is high in the morning and evening periods is faced with severe congestion as movements are almost impossible. Road users at such periods are either forced to switch transport means or are left with no choice than to accept the delays.

Table 1: Traffic flow in the Bamenda Metropolis

Name of street	Morning	Number	Afternoon	Number	Evening	N ⁰ of
	periods	of cars	periods	of cars	periods	cars
Sonac street to city chemist	6.15am	300cars	12.pm	100 cars	4.00pm	280 cars
Mile 2 junction to Amou Mezam	6.00am	298cars	1.pm	98 cars	3.30pm	209 cars
Amou Mezam to Foncha junction	6.10am	216cars	12.30pm	50 cars	3.20pm	207 cars
Mile 4 junction to Forku	6.20am	199cars	1.15pm	50 cars	4.pm	218 cars
Mile 3 Guiness to Farmers house	6.14am	238 cars	12.27pm	80 cars	4.14pm	21 6cars
Ngeng junction to Vertinary	6.00am	310cars	12.30pm	78cars	3.45pm	300 cars
junction						
Commercial Avenue to T	6.00am	400cars	12.59pm	110cars	3.57pm	380 cars
junction						
City chemist to Tasse building	6.07am	387cars	1.pm	30cars	3.00pm	320 cars
Foot market to hospital round	6.02am	317cars	1.20pm	20cars	4.09pm	299 cars
about						
Hospital round about to Azire	6.19am	280cars	12.00pm	130 cars	4.pm	272 cars
New church						

Source: Field work 2022

These wanton delays have paralysed a lot of activities as the circulation of goods and services is low. Most often, the traffic congestion is at strategic junctions which serve as gateways to several other areas in the city and beyond. The slow and congested traffic flow for example in the Mobile Nkwen neighbourhood affects activities in the Finance Junction, Up station, to the CBD of the town, to Mile 2 junction, Cow street, Sisia Banjie street, and to Nkwen Market areas. The scenario is the same in the most solicited junction areas of the city. This has as well affected movements to neighbouring towns to Bamenda. Results from findings revealed that the city has some major hotbed traffic congestion spots (Figure 4). The traffic congestion hotbeds reduce movements and delivery time to neighbouring towns such as Bafut, Wum, Bambui, Bambili, Banbaki, Mbingo, Njinikom, Ndop, Jakiri and Nso in the North West region of Cameroon.



Source: Field work, 2022

Figure 4: Traffic Hotbeds in the Bamenda Metropolis

Several factors can be advanced for the increased traffic congestion and reduction of delivery time in Bamenda. First of all is the nature of roads which is bad and has reduced traffic flow from one place of the town to the other. The second is the clandestine occupation of roads by vendors and parking. The roads in the city are not only bad but are small in size which does not permit any easy circulation of vehicles. Unfortunately, users have further aggravated the situation by introducing unauthorised parking and roadside shops. This has affected circulation and triggered congestion. Some further reasons include the violation of traffic rules such as traffic control lights and road signs. Traffic control rules which are put in place to regulate circulation and avoid road accidents at best are not respected by some users in Bamenda (Khan \$ Fombe, 2019). This unorthodox practice which is perpetrated by the motor bike riders has greatly affected circulation in the city of Bamenda and produced congestion. Inadequate traffic pattern also has caused congestion in the city. Traffic patterns in the Bamneda metropolis are substandard and absent at some areas. This reduces the fluidity of traffic circulation and instigates slow movement which causes congestion. Such perpetual slow movements and congestion has resulted to huge economic losses and accidents.

Results from findings in figure 3 revealed that close to 29% of economic losses are accrued due to congestion in Bamenda. Traders lose the opportunity to exchange their goods and services, the city loses the opportunity to receive income from in-migrants and much money is lost from delays accrued due to bad roads. The nature of roads has provoked the increase in prices of circulation as the vehicle owners suffer from damages when they use such dilapidating roads. Tension and pressure is recurrent in the pick-up and bus stops of the town which amounts to violence from impatience and long wastage of time in the travel process. Noise and air pollution has become the other of the day since most large size vehicles stand for long in the course of movements in the city. This numerous difficulties is crowned by road accidents which have increased more than ever before in the town. The road accidents have led to several injuries and to greater extent deaths for some time now (Table 2)

Table 2: Statistics of incident rate in the city of Bamenda from 2013 to 2022

Location	Date	Time Period	Incident type	Human incident	Material lost	
Mile 9 Bambili road	23/02/2013	6.00pm	Trucks vs motorbike	1dead17yrs 1 wounded	Damage of bike	
Mile 9 Bambili road	02/03/2013	5.40pm	Private cars	Wounded 36	Damage on both vehicles	
Hospital round about	10/03/2013	7.00am	Trucks vs taxi	1 dead 25 yrs	Damage on taxi than truck	
Mile 4 junction Nkwen	15/03/2014	6.am	Taxi vs private car	1 wounded 40 yrs	Damage on car	
Ntarikon Market	15/04/2012	9.35am	Taxi vs bus	Dead 36 yrs	Damage on bus	
Mile 9 Bambile road	22/05/2012	4.30pm	Taxi vs truck	4 wounded 27,34,37,30 yrs	Damage on taxi	
Bambili	26.05.2014	10.00am	Taxi on store	None None	Damage on store	
Four coners Bambui	31/05/2013	9.am	Truck vs private car	None	Damage on car	
Mile 9 Bambili road	22/05/2012	7.45pm	Taxi vs pedestrian	1 dead 55 yrs	Little damage on taxi	
Mile 8 Mankon	09/06/20131	3.30pm	Taxi vs motor bike	1 dead 41 yrs	Damage on bike than taxi	
Mile 7 Polytechnic	17/06/2012	5.pm	Taxi vs motor bike	4 wounded 62.26,50,52 yrs	Little damage on taxi	
Natrikon Council Junction	03/07/2014	8.am	Taxi vs taxi	None	Damage on both vehicles	
Mile 7 Polytechnic	28/07/2012	8.am	TAXI vs Pedestrian	1 Dead	Little damage on both taxi and bike	
Mile 3 NKwen	06/08/2013	6.pm	Taxi vs Pedestrian	1 wounded 16	None	
Gunness Mile 3 Blessing petrol station	23/02/2022	7.pm	Bike vs taxi	yrs1 dead 1 wounded 42 yrs	Damage on bike and taxi	
MILe 3 Entrance to the Martines Hospital	06/04/2022	6.pm	Bike vs private car	2 wounded 22,30 yrs	Damage on bike and car	
Mile 3 blue Pearl hotel	18/02/2022	3.30pm	Private vs bike	None	Little damage	
Foncha Junction	03/04/2022	5.15pm	Taxi vs taxi vs Pedestrian	2 wounded 23 35yrs	No damage	
Ntabessi Entrance front Asanti	12/06/2022	3.56pm	Taxi vs Bike	1dead 19 yrs	Damage on bike and taxi	
PMI Entrance	13/05/2022	2.pm	Bike vs Pedestrian	17 yrs wounded	No damage	
New road Junction	2 /03/20222	12.pm	Taxi vs taxi	None	Little damage on both taxis	
Up New Road Front ST Micheal	16/03/2022	7.35pm	Bike vs truck	4 dead 3 wounded12,28,3 8,40 14,10,18yrs	Serious damage of truck and bike	
Ndamukong Street	13/06/2022	2.pm	Bike vs Bikes	1dead 1 wounded 20,28	Damage on both bikes	

				yrs	
Ndamukong Street	25/07/2021	10 am	Taxi vs bike	1 Wounded	Damge on bike
Mile 2 Junction	10/06/2022	8.35pm	taxi vs truck	None	Damage on truck
K Town Etrance Mile 2	11/05/2022	11.pm	Private cars	1 wounded 30 yrs	Damage on both cars
Cow street	11/01/2022	4 am	Private car	3 wounded	Damage on both cars
Finance Junction	9/02/2022	8.15 am	Bike pedestrian	2 wounded 21,15 yrs	Little damage on bike
Miss Ngeng Junction	27/07/2022	1pm	Taxi pedestrian	1 wounded	No damage on car
Ndamukong Street	7/05/2022	4 pm	Bike vs truck	1 wounded 20yrs	Damage on bike
Ndamukong Street 2 tap	10/07/2022	2pm	Private car	3 wounded 20,27,26 yrs	Damage on car
Old town	20/09/2021	11 am	Bike vs bike	2 wounded 20,19 yrs	Damage on both bikes
T JUnction	10/11/20221	1.15pm	Taxi pedestrian	1 wounded 10 yrs	No damage
Metas Quarter	13/04/2022	11am	Taxi bike	1 wounded 24yes	Damage on taxi and bike
Sonac Street	18/01/2022	1oam	Taxi bike	None	No damage
Below foncha	28/03/2022	11am	Bike vs truck	2 wounded 1 dead 23 19,38 yrs	Damage on bike
Ndamukong Street Frist tap	10/02/2022	3.pm	Motor bikes	3 wounded 42,20,17 years	Damage on both bikes

Source: Regional Delegation of Transport for North West 2022

The number of incidents in the Bamenda metropolis has increased over the years with that of 2022 being more exposed. The magnitude of damages has not only affected the items and property, but has as well affected the people leading to loss of lives. The traffic flow situation in Bamenda has become a cause for concern which warrants remedy.

4.3: Traffic flow remedial strategies to congestion in the Bamenda metropolis

In order to reduce if not stop traffic congestion in the city of Bamenda, some remedial strategies have been advanced by this paper which warrants implementation. Results from field work revealed that some 20% of the inhabitants of Bamenda prefer the creation of new roads as a solution. The present roads in the city are old, in a dilapidating state and small. It is incumbent for new and better ones to be created in order to present a modern image of a metropolis as such (Table 3).

Table 3: Remedial strategies to traffic congestion in Bamenda

Designation	Respondent	Percentage
Creation of new roads	56	20.28
Widening of old existing roads	14	5.07
Creation of regulated parking space	24	8.69
Constant maintenance of traffic control lights	17	6.15
Institution of traffic control security	37	13.46
Prohibition of roadside parking	31	11.23
Institution of mandatory fines to violators	12	4.34
Prohibition of roadside vending	32	11.59
Introduction of modern transport services	42	15.21
Education of traffic users	11	3.98
Total	276	100

Source: Field work, 2022

Traffic congestion can be curbed in the city if modern transport services are introduced. Some 15.21% of respondents adhere to this fact based on the numerous changes observed in other cities in Africa and beyond. New services such as tramp ways and bus services will reduce the numerous unwanted movements of vehicles within the

city and thus reduce congestion at best. These services have been introduced in neighbouring countries such as Senegal and South Africa and have ameleorated their traffic delay problems.

The institution of traffic control security is a necessity in the city of Bamenda. Aside regulating the traffic flow, these security persons will as well serve in the maintenance of law and order in the area thus reducing any incidence of crime and addressing any accidents if need arises. It is true that the traffic control lights are present but with some added control, recalcitrant users will respect the law and assure a smooth flow from one place to the other. Furthermore, some 11.23% of inhabitants agreed that the prohibition of roadside parking will reduce congestion in the city. This is because indiscriminate roadside parking has become a perpetual norm in the city. Users do no longer respect any law and increase the disorder as days go by. This reduces the space of the existing narrow roads and thus is tantamount to congestion and traffic delays. Therefore, the way forward to curb the wanton delays is the institution of stringent rules prohibiting roadside parking.

It does not suffice to prohibit neither roadside parking nor traffic security control, but as well to create roadside parking space. Some 8.69% of inhabitants in the city of Bamenda confirmed that there is need to create one. The city is not only void of bad roads but as well limited uncontrolled parking space. As such vehicle owners' especially commercial ones are left with no choice than to park by the roads despite the narrow nature. This is the major cause of slow movements, hence congestion. Roadside parking pace is therefore mandatory in this emergent city era where more than 75% of the inhabitants use cars on a daily basis. The State and municipal authorities have the responsibility to address this situation and generate income as it is done in other cities of Africa and the developed countries.

The strategy to enable road users respect the rules and regulations in place is by fines meted on the defaulters who violate laws. The enforcement of such laws has to be stringent without any bias or inertia. In this way, the population is already aware of the consequences of violating laws and will thus respect them to avoid the fines. This will reduce the unbearable congestion and traffic delays accrued over the years. The population of the city needs constant education on the respect of traffic control laws and all. In order to implement these remedial strategies and for them to work well, education of the users is incumbent. This will increase the awareness on the necessity to respect laws so that movement will be smooth and faster, and services will be done and delivered on time. The Bamenda metropolis will have a face lift if these majors and more are put into use.

5. CONCLUSION

Traffic congestion and wanton delays in Cameroonian towns has been found to be a recurrent plague in the transport sector and does not seem to announce an end time vet. Road infrastructural development is considered to be a palliative to congestion in the Bamenda metropolis. This is because it will not only reduce congestion, but will as well increase delivery time and render circulation smooth. This paper which sought to introduce remedial strategies to congestion in the Bamenda metropolis found out that the state of the roads in the city is bad. The roads are at a dilapidating state with numerous potholes and poor drainage systems which render them vulnerable to adverse weather conditions. Anthropogenic pressure from unorthodox parking to roadside vending as well as violation of traffic control lights have further aggravated the congestion scenario. Road users who come in and move out of the city are discouraged with the long waiting periods and delays accrued as their businesses and projects are handicapped. Traffic flows are on a perpetual delay as circulation is slow especially in the morning and evening periods which depicts the peak moments of movement. Impatience and adamant to change nature from the population has further increased the stress observed everyday on the roads in the town. The resulting effects have thus been wanton traffic congestion and delivery delays which has provoked road accidents, violence as well as deaths to a greater extent. With such alarming situation, this paper serve as source of remedy to the chaos observed. It is the hope of this article that if the remedial strategies proposed are implemented, the Bamenda metropolis will become a sustainable city by the 2035 emergence nation plan announced by the authorities.

REFERENCES

- Ntoban, V. K., and Fogwe, Z. N. (2019). The Garbage Disposal Challenges in Bamenda (Cameroon): An Urbanization and Public Welfare Policy Accountability. In International Journal of Resources and Environmental Management, Vol. 4, No 2, pp: 75-92
- Fogwe, Z. N. (2020). Biking Acculturation Incidence on the Cameroon Urban Activity Fluxes: A Traffic Congestion Panacea or Palliative in Bamenda? In International Journal of Global Sustainability. ISSN 1937-7924, 2020, Vol 4, NO 1, URL: https://doi.org/10.5296/ijgs.v4i1.16517, pp: 40-54
- Tanzina. A and Nita. Y. (2020). A Survey of Road Traffic Congestion Measures towards a Sustainable and Resilient Transportation System. Review of sustainability. Department of Industrial and Manufacturing Engineering, North Dakota State University, pp 2 of 23.

- Agyapong. F. and Kolawole. T. O. (2018). Managing Traffic Congestion in the Accra Central Market, Ghana. Journal of Urban Management, University of Cape Coast. Vol.7, pp 85 96
- Memmott, T and Young, P. (2008). Seasonal Variation in Traffic Congestion. A study of Three U.S Cities. U. S. Department of Transportation Research and Innovative Technology Administration, Technical Report, No 005
- Njengoue Ngamaleu, H. R. (2017). La perception du risqué chez le conducteur de mototaxi dans les villes Camerounaise. In SADEV/CERAD-ACP, Vol 6, pp. 309-329
- Fozong, T. D. N., Tiafack, O., Tchakonte, S., Nguemo, C. G. N., & Badariotti, D. (2023). Analysis of Weather Anomalies to Assess the 2021 Flood Events in Yaounde, Cameroon (Central Africa). *American Journal of Climate Change*, 12, 292-320
- Yango, J. (2014). Urban Planning rules in Cameroon. Critical analysis of tools. 378p
- Memmott, T and Young, P. (2008). Seasonal Variation in Traffic Congestion. A study of Three U.S Cities. U. S. Department of Transportation Research and Innovative Technology Administration, Technical Report, No 005
- Ntoban, V. K., and Fogwe, Z. N. (2019). The Garbage Disposal Challenges in Bamenda (Cameroon): An Urbanization and Public Welfare Policy Accountability. In *International Journal of Resources and Environmental Management*, Vol. 4, No 2, pp: 75-92
- Khan, S. N., and Fombe, L. F., (2019). Traffic of Fleets at Urban Nodes within the City of Bamenda; A Handicap to Sustainable Transportation. *East African Scholars Journal of Education, Humanities and Literature*. Vol.2/ issue 12.