

Urban Transport Policies and Socio-Economic Development in Cameroon: The Case of Douala Urban Council

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Abstract:

Transportation systems play a critical role in linking producers and consumers, reducing transaction costs, and facilitating the movement of goods, people, and ideas. The availability of efficient and reliable transportation infrastructure, is essential for economic growth and development because it enables access to markets, employment opportunities, schools, and essential services. This study investigates the impact of urban transport policies on socio-economic development in Douala, Cameroon. It explores how transport infrastructure affects economic activities, accessibility to services, and residents' quality of life. The research employs a qualitative design, combining primary data from surveys, interviews, and focus group discussions with secondary data from reports and literature. Key actors include government institutions, transport operators, and infrastructure development agencies. Douala's rapid urbanization poses challenges like increased transport costs, economic slowdowns, negative mental health impacts, and high kidnapping rates. The study highlights the need for improved transport infrastructure, better linkages between transport modes, and policy enhancements. Recommendations focus on investing in road infrastructure, implementing traffic management systems, and enhancing government commitment to long-term solutions. These measures aim to foster development, attract investors, and improve transport efficiency, ultimately contributing to socio-economic growth and resilience in Douala.

Keywords: Transport, Transport System, Policy, Infrastructures, Development, Douala.

Resume:

Les systèmes de transport jouent un rôle crucial en reliant les producteurs et les consommateurs, en réduisant les coûts de transaction et en facilitant le mouvement des biens, des personnes et des idées. La disponibilité d'infrastructures de transport efficaces et fiables est essentielle pour la croissance économique et le développement car elle permet l'accès aux marchés, aux opportunités d'emploi, aux écoles et aux services essentiels. Cette étude examine l'impact des politiques de transport urbain sur le développement socio-économique à Douala, Cameroun. Elle explore comment les infrastructures de transport affectent les activités économiques, l'accessibilité aux services et la qualité de vie des résidents. La recherche utilise une conception qualitative, combinant des données primaires provenant d'enquêtes, d'entretiens et de discussions de groupe avec des données secondaires tirées de rapports et de la littérature. Les principaux acteurs

comprennent les institutions gouvernementales, les opérateurs de transport et les agences de développement des infrastructures. La rapide urbanisation de Douala pose des défis tels que l'augmentation des coûts de transport, le ralentissement des activités économiques, des impacts négatifs sur la santé mentale et un taux élevé de kidnappings. L'étude met en évidence la nécessité d'améliorer les infrastructures de transport, de mieux relier les différents modes de transport et d'améliorer les politiques. Les recommandations se concentrent sur l'investissement dans les infrastructures routières, la mise en œuvre de systèmes de gestion du trafic et l'amélioration de l'engagement du gouvernement envers des solutions à long terme. Ces mesures visent à favoriser le développement, attirer les investisseurs et améliorer l'efficacité du transport, contribuant ainsi à la croissance socio-économique et à la résilience de Douala.

Mots-clés : Transport, système de transport, politique, infrastructures, développement, Douala

Introduction:

Transport can be defined as the movement of goods and persons from place to place and the various means by which such movement is accomplished. The growth of the ability and the need to transport large quantities of goods or numbers of people over long distances, at high speeds in comfort and safety has been an index of civilization and in particular of technological progress. It is the backbone of an economy because it plays a critical role in linking producers and consumers, reducing transaction costs, and facilitating the movement of goods, people, and ideas. Transport policies arise because of the importance of transport in virtually every aspect of global economic, social, and political exercise¹.

A policy is a set of decisions taken by political actors concerning the selection of goals and the method of attaining them relating to specified situation. The concern of a policy is in the making of decisions regarding a course of action, to be followed by government in dealing with a problem or matter of concern. Consequently, public policy is a set of interrelated decisions by a political actor or group of actors concerning the selection of goals and the means of achieving them within a specified situation where those decisions should, in principle, be within the power

of those actors to achieve². Public policy plays a crucial role in driving transport development by establishing frameworks, allocating resources, and setting priorities. A typical example is the European Union's White Paper on Transport Policy that set a roadmap for a more sustainable, efficient, and competitive transport system³. This policy encouraged the development of alternative fuels, smart transport systems, and the integration of different transport modes, shaping the trajectory of transport development in the region. Transport development can, in turn, influence public policy by creating new challenges or opportunities that necessitate policy interventions. The rapid growth of motorcycle services in Douala IV for example, has prompted policymakers to rethink existing regulations on licensing, insurance, and safety standards to accommodate these emerging transport solutions⁴. These developments push policymakers to continuously adapt and evolve their strategies to promote a safe, efficient, and equitable transport environment. Policies that promote equitable access to public transportation, such as fare subsidies or service expansion in low-income areas, can help bridge

¹ Sunusi Abdulkarim et. Al. (2022) Roles of road transport policy on economic development in federal capital territory Abuja, Nigeria: stakeholders perception. *Journal of tourism, hospitality and environment management (JTthem)*, Volume 7 Issue 27 (March 2022) PP. 179-197 DOI 10/35631/JTHEM.727015

² E. Oluwole Oni, « Public policy analysis », in Dhikru Yagboyaju et al., *Fundamentals of politics and governance*, Concept Publications, pp. 324-325

³ European Commission. (2011). White paper: Roadmap to a single European transport area – Towards a competitive and resource efficient transport system. Publications Office of the European Union.

⁴ Henao, L., & Marshall, W. (2019). Rethinking regulation for transport innovations. *ITF Transport Outlook 2019*, OECD/ITF, Paris, 117-134.

socio-economic gaps⁵. In turn, transport development can generate economic growth by increasing connectivity and enhancing mobility, thereby strengthening the case for policy interventions.

A transport policy refers to a set of principles, guidelines, and strategies established by governments or organizations to manage and regulate transportation systems. It involves developing a set of constructs and propositions aimed at achieving specific objectives related to social, economic, and environmental conditions, as well as the functioning and performance of the transport system. It focuses on making effective decisions concerning the allocation of transport resources, managing and regulating existing transportation activities, and ensuring the transport system meets the needs of society⁶.

Road transport policies in Africa are critical for enhancing connectivity, promoting economic development, and ensuring sustainable urban mobility. These policies address various challenges, including inadequate infrastructure, road safety, and the integration of modern technologies. Key elements of road transport policies in Africa include infrastructure development which includes the construction and maintenance of highways, urban roads, and rural access roads. Governments are investing in projects such as the Trans-African Highway network, which aims to connect major cities across the continent and facilitate regional trade and integration⁷. Road safety is also a significant concern in Africa, where road traffic accidents are a leading cause of death and injury. Policies focus on improving road safety through measures such as enforcing traffic laws, improving road

infrastructure, and raising public awareness about safe driving practices. The African Road Safety Action Plan (2011-2020) is an example of a regional initiative aimed at reducing road traffic fatalities and injuries⁸. Moreso, to address the environmental impact of road transport, African countries are adopting sustainable transport policies which includes promoting the use of electric vehicles, developing public transportation systems, and encouraging non-motorized transport modes like walking and cycling. For example, South Africa has implemented policies to support the adoption of electric vehicles and the development of charging infrastructure⁹. Implementing road transport policies requires significant financial resources. African governments often rely on international donors, development banks, and public-private partnerships to fund infrastructure projects. The African Development Bank (AfDB) plays a crucial role in financing transport projects across the continent, providing loans and grants for road construction and maintenance.

Transport policy in Cameroon focuses on improving the country's transportation infrastructure to enhance connectivity, support economic growth, and ensure sustainable development¹⁰. The policy includes the development and maintenance of road networks, railways, waterways, and air transport which as well focuses on improving road safety, enhancing infrastructure, and promoting sustainable urban mobility¹¹. The 2021 Prevention and Road Safety Programme is a key initiative, which involves transferring powers and resources to local councils to enable them participate in road safety measures.

⁵ Currie, G., & Delbosc, A. (2010). Public transport and the spatial behavior of Australian cities: A study using destination and origin data. *World Transactions on Engineering and Technology Education*, 8(2), 117-127.

⁶ Rodrigue, J.-P., Notteboom, T., & Slack, B. (n.d.). *The Nature of Transport Policy*. Retrieved from Transport Geography

⁷ African Development Bank. (2021). *Africa Connects: The First Trans-African Highway Corridor to be Completed in 2021*.

⁸ United Nations Economic Commission for Africa. (n.d.). *African Road Safety Action Plan (2011-2020)*.

⁹ International Energy Agency. (2020). *Electric Vehicles in Africa*.

¹⁰ Transport and Infrastructure - Cameroon | AFRI-RES

¹¹ Ministry of Transport Cameroon. (2021). *Powers, Resources To Councils: Prevention, Road Safety Introduced*. Retrieved from Cameroon Tribune

Urban transport policies are crucial for addressing environmental, social, and economic challenges in cities. These policies aim to improve mobility, reduce congestion, enhance air quality, and promote sustainable development¹². Key strategies include investing in mass transit systems, promoting multimodal transportation, encouraging walking and cycling, and implementing emission-reducing technologies¹³. Effective urban transport policies require a holistic approach, considering the diverse needs of urban populations and the unique characteristics of each city¹⁴. By prioritizing sustainable and inclusive transport solutions, cities can create more livable and resilient urban environments

Evolution of Transport policies and Impact on Development in Cameroon:

Since African independence, urban policies have been trying to make a vision of the future urban center with concepts and methods designed to bring about development¹⁵. Given the rate at which urban centers all over the world are emerging¹⁶, there is no doubt that urban transport planning and infrastructural development defines the beauty and the people of a city and goes a long way in interpreting the types of political structures of a place. A chaotic (unplanned and poorly planned), dirty and unorganized urban transportation systems is, to a large extent, symptomatic of poor governance. Many researchers are of the opinion that¹⁷, urban

transport policies and investments are only implemented on the basis of urban transport planning and management, therefore their evaluation is usually linked to performance in terms of transport operations.

The importance of transport in economic development has been recognized since the early days of economic theory. The classical economists, such as Adam Smith and David Ricardo, emphasized the significance of transport infrastructure in facilitating trade and commerce. In the 20th century, the development of the field of transportation economics further solidified the link between transport and economic development, with scholars studying the impacts of transportation infrastructure on regional growth, trade, and productivity. In recent years, the study of transport in economic development has become increasingly important as countries seek to enhance their economic competitiveness and achieve sustainable growth. There is a growing recognition of the need for well-functioning transportation systems to support urbanization, industrialization and globalization.

An organized transport system in Cameroon started since 1884 when the Germans took possession of “Kamerun”. They invested in means of transport allowing an easy and cheap evacuation of the goods from the colony. Upon independence in 1960/61, transport in Cameroon only served areas that had been deemed economically profitable by the colonial powers¹⁸. Transport policy at this time was more of an egoistic decision because it was to serve the interest of the colonial masters. However, under Ahmadou Ahidjo, the first president of independent Cameroon, transport policy aspires to both economic development and national unity, through faster, less costly and nationwide transport network. Thus, the new state adopted an economic policy which revolved around a “five-

¹² Almagro, M., Castillo, J. C., Hickok, N., Kup, F., & Salz, T. (2023). Optimal Urban Transportation Policy: Evidence from Chicago. *Sciences Po*

¹³ Berg, C. N., Deichmann, U., Liu, Y., & Selod, H. (2023). *Transport Policies and Development*. The World Bank

¹⁴ Almagro, M., Castillo, J. C., Hickok, N., Kup, F., & Salz, T. (2023). Optimal Urban Transportation Policy: Evidence from Chicago. *Sciences Po*

¹⁵ Pierre Jacquemot, Jean Yango. Soixante ans de politique urbaine à Douala. La revanche de l'informel face à la volonté planificatrice. *Afrique Contemporaine*, 2020, 271-272, pp.281-301. 10.3917/afco.271.0281. hal-03892685

¹⁶ UN. World urbanization Prospects: The 2018 Revision. United Nations Department of Economic and Social Affairs/Population Division, (E/CN.9/2018/5); 2019

¹⁷ Gerd S.; Klementsitz R. & Roider O. Urban transport and local Socio-economic development. *Journal of real estate research*. 2016;5:355-369

¹⁸ Nicolas Noël Chabanel Owona Ndonga. Les politiques publiques des transports des transports au Cameroun de 1884 à 2017. *Histoire*. Université de Yaoundé 1 (Cameroun), 2022. Français. NNT : <https://hal.science/tel-03774858>

year plan” in 1981. One of the objectives of this policy was the modernization of transport¹⁹, and the government considered transport and communications infrastructure to be key factors in the country's development. The transport sector infrastructure development in particular was emphasized under the fifth five-year plan, and was therefore allocated the second largest share of the total amount invested—after agriculture, forestry, and fisheries—at approximately 18%. Considering the role of road traffic in overland transport, the road sector was accordingly allotted approximately 68%—the highest percentage—of the total assigned to the transport sector under this plan²⁰. From 1986 onwards, as a result economic crisis, the “five-year plan” came to a halt and gave rise to the introduction of the Structural Adjustment Programs (SAPs) in September 1988, under the leadership of the International Monetary Fund (IMF) and the World Bank. Following the rigors of the SAPs, came the Poverty Reduction Strategy Paper in 2003; the Growth and Employment Strategy Paper in 2009; and the Three-Year Emergency Plan since 2014. All these economic strategy papers mark Cameroon’s entry into the “post-adjustment” era, which should lead the country to vision 2035²¹. It is no secret that towns in Cameroon suffer from socio-economic and environmental problems, and need the putting in place of adequate measures²² to meet the needs of the population and development of the economy.

Role of Transportation System in Economic Development:

The development of transportation system is embedded within the scale and context in which

¹⁹ Nicolas Noël Chabanel Owona Ndounda. Les politiques publiques des transports des transports au Cameroun de 1884 à 2017. Histoire. Université de Yaoundé 1 (Cameroun), 2022. Français. NNT : <https://hal.science/tel-03774858>

²⁰ Cameroon road development project report 2002

²¹ Nicolas Noël Chabanel Owona Ndounda. Les politiques publiques des transports des transports au Cameroun de 1884 à 2017. Histoire. Université de Yaoundé 1 (Cameroun), 2022. Français. NNT : <https://hal.science/tel-03774858>

²² www.cameroon-tribune.cm

they take place, from the local to the global, environmental, historical, technological, and economic perspectives. It therefore takes place in a socioeconomic context. Development can be defined as improving the welfare of a society through appropriate social, political and economic conditions. The expected outcomes are quantitative and qualitative improvements in human capital (income and education levels), as well as physical capital such as infrastructure (utilities, transport, and telecommunications)²³. While development policies and strategies focus on physical capital, recent years have seen a better balance including human capital issues. Irrespective of the relative importance of physical capital versus human capital, development cannot occur without both interacting, as infrastructure cannot remain effective without proper operations and maintenance. At the same time, economic activities cannot take place without an infrastructure base, the highly transactional and service-oriented functions of many transport activities underline the complex relationship between physical and human capital needs²⁴. For instance, effective logistics, rely on infrastructure and managerial expertise. Intensive use of infrastructures, the transport sector is an important component of the economy and a common tool used for development. This is even more so in global economy where opportunities have been increasingly related to the mobility of people and freight, including information and communication technologies.

Sound transportation investments lower the costs of moving people and goods. This increases economic productivity, which roughly can be measured as the output of goods and services of private and public investment thereby leading to higher standard of living. A well-developed road transport system ensures the efficient movement

²³ Cameroon road development project report 2002

²⁴ Egbenchong, R. E., Majolie, C. D., & Akei, L. A. (2022). Urban Road Transport Infrastructure Planning and Development Implications on Socio-Economic Growth in the City of Douala, Cameroon. *International Journal of Innovative Research and Studies*, 24(9), 92.

of goods and services, connecting producers to markets, suppliers to manufacturers, and businesses to consumers²⁵. This enhances trade, both within countries and across borders, and reduces logistics costs, making products more competitive thereby facilitating regional integration by connecting neighboring countries and promoting cross-border trade²⁶. This enhances economic cooperation and strengthens economic ties, contributing to regional stability and development. Because productivity is central component of economic growth, it should be of major concern when assessing the value of transportation expenditures. It is important to focus on improving productivity even when the policy makers strive to serve other important long-term transportation objectives, and environmental sustainability, high productivity transportation investments increase connectivity and reduced congestion. By doing so, they improve economic wellbeing. Short-term job creation, while vitally important to economic recovery, should not cause us to ignore the longer-term view.

Road transport systems improve accessibility to remote and rural areas, making it easier to distribute goods and services. This helps reduce regional disparities and supports equitable development. Improved connectivity also attracts investment and promotes tourism, contributing to economic growth. This system is vital for moving raw materials to factories and finished products to markets. The development and maintenance of road infrastructure generate employment opportunities in construction, engineering, maintenance, and logistics. The growth of the transport sector also stimulates related industries such as vehicle manufacturing and repair services, thereby creating more jobs. Efficient road transport provides better access to education, healthcare, and essential services, improving the

quality of life. It reduces travel time and costs, making it easier for people to access job opportunities and participate in economic activities more equitably.

Transport and Development in Douala IV Municipality:

The Douala urban center which links many major towns of the country like Yaounde, Bafoussam, Limbe and Buea, lacks an alternative road that one can use without necessarily passing through the main town where commercial activities are taking place. This becomes imperative for the Government to construct many major entrance/exit roads or separate the interurban entrance/exit roads from the intra-urban entrance/exit roads which link the suburbs of Kotto, Bonaberi, Bassa and Ndizengue and Akwa and Banajo etc. This is so because, since Douala road network handles inter-urban travels as well intra-urban transport, it would be logical and transport efficient if there is the creation of a road network that links periphery towns of the Littoral Region, that does not necessarily pass through the space where commercial activities operate. For example, constructing a road that links the South West and West Region to the Centre region without passing through the Douala center, will go a long way to solve the infrastructural crisis in the road transport sector of the country²⁷. The present road transport infrastructure system in Douala leads to serious traffic congestion that affects mobility within the town and even inter-urban transport systems. The narrow nature of the road, lack of infrastructural development and the absence of traffic lights system at major junctions is a major cause of traffic in the zone. The situation is made worse by the carefree movement of commercial motorcycle riders who transport the settlers in this part of the town, especially as they do not have a specific lane reserved for them.

²⁵ ibid

²⁶ Sunusi Abdulkarim et. Al. (2022) Roles of road transport policy on economic development in federal capital territory Abuja, Nigeria: stakeholders perception. *Journal of tourism, hospitality and environment management (JTthem)*, Volume 7 Issue 27 (March 2022) PP. 179-197 DOI 10/35631/JTthem.727015

²⁷ Njimanted G.F. & Mbohjim O. M.(2013): Determinants of Traffic Congestion in the Metropolis of Douala, Cameroon: An integrated approach. *REVUE DE L'ACADEMIE DES SCIENCES DU CAMEROUN* Vol. 11 No. 2 & 3

Public transport policies are therefore not insignificant or independent because they interact strongly with other sectors such as trade, agriculture, urban planning, etc. Cameroon's transport sector faces a multitude of challenges such as: maintaining and expanding the road network; developing intermodal/multimodal interfaces to improve logistics performance; reducing transport costs and prices through more effective service delivery, and competition in the transport sector to enhance Cameroon's role as a regional transport hub; improving the professionalization and efficiency of the transport services industry²⁸.

The Ministry of Housing and Urban Development is responsible for developing and implementing the government's policy on habitat and urban development. On urban development, the Ministry is responsible for drawing up and monitoring the implementation of urban development and restructuring strategies; developing and implementing integrated urban social development strategies; developing and implementing urban infrastructure management strategies. This Ministry works in collaboration with the Ministry of Public Works to develop and implement strategies to improve traffic in urban centers; generally improving the urban centers; planning and monitoring urban development; monitoring the preparation of urbanization master plans; liaising with international organizations on urbanization via the Ministry of Foreign Affairs. The Ministry works closely together with the relevant local authorities and oversees the Société Immobilière du Cameroun (Real Estate Company of Cameroon - SIC)²⁹.

²⁸ Cameroon Transport Sector Development Project P150999 (2016)

²⁹ <https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://globalabc.org/node/116&ved=2ahUKEwiokveOsIiGAXoVvEDHaTCB78QFnoECDIQAQ&usg=AOvVaw29J4F9na3r6oBE0QyHA8nn>. The details of this can be traced from the website of the global alliance for building and construction

The Actors in the Douala Urban Road Transport System:

It is worthy to note that the urban road transport in Douala, Cameroon involves various actors³⁰ who contribute to its development, operation, and management. Therefore, effective collaboration among these actors is crucial for addressing challenges and promoting sustainable, efficient, and inclusive urban transport in Douala.

1) Government Institutions:

Government institutions play a pivotal role in policy-making, planning, and regulation of urban road transport in Douala. Notable institutions are:

Ministry of Public Works:

Ministry of Public Works in Cameroon plays a pivotal role in the urban transport system as it oversees the planning, construction, and maintenance of road infrastructure³¹. The ministry is responsible for infrastructure development such as planning, construction, and maintenance of road infrastructure in urban areas, project implementation, policy formulation to improve urban transportation and address challenges like congestion and road safety. It collaborate with other governmental and international agencies, such as the Japan International Cooperation Agency (JICA) and the World Bank, to fund and execute urban transport projects and partnerships with private sector companies, and to finance and manage transportation projects³². These efforts by the Ministry of Public Works are crucial for enhancing the efficiency and sustainability of the urban road transport system in Cameroon.

The Douala City Council Manages urban development projects including transportation

³⁰ Egbenchong, R. E., Majolie, C. D., & Akei, L. A. (2022). Urban Road Transport Infrastructure Planning and Development Implications on Socio-Economic Growth in the City of Douala, Cameroon. *International Journal of Innovative Research and Studies*, 24(9), 92.

³¹ Japan International Cooperation Agency (JICA). (2017). Data Collection Survey on the Transport Network Development in Douala, Republic of Cameroon Final Report

³² Ministry of Public Works (MINTP). (2024). Projet de Développement du Secteur des Transports (PDST).

infrastructure³³ as it plays a significant role in the planning, development, and maintenance of transport infrastructure in the city. It oversees the construction, reconstruction, and rehabilitation of road networks including expanding existing roads and building new ones to improve connectivity and accessibility within the city; invests in and maintains transport infrastructure to ensure its functionality and efficiency; collaborates with various stakeholders like government agencies, private sector partners, and international organizations, to fund and implement transport infrastructure projects; as well as ensures the effective implementation of urban transport policies to support the development of transport infrastructure³⁴. The Ministry of Housing and Urban Development collaborates with other ministries³⁵ and agencies to ensure sustainable urban growth and transportation planning³⁶

The Ministry of Housing and Urban Development (MHUD) in Cameroon plays a crucial role in urban transport development, focusing on policies, planning, and implementation of transport systems that are sustainable, efficient, and accessible in collaboration with other ministries and agencies to ensure sustainable urban growth and transportation planning³⁷. The MHUD is responsible for formulating policies that guide urban transport development via the integration of transport planning with urban development to

ensure that transport systems meet the needs of urban populations³⁸. They also oversee the development of transport infrastructure, including roads, public transport systems, and pedestrian pathways which is essential for facilitating mobility and reducing congestion in urban areas³⁹.

2) Transport Operators and civil society:

Despite the intervention of state actors in the urban transport sector in Cameroon, there exist several transport operators from the civil society to cooperate in the development of urban transport sector in Douala..

SOCATUR (Société Camerounaise des Transports Urbains) established in 2021 is a key player in the urban transport sector in Douala and operates public buses in Douala in partnership with the Douala Urban council⁴⁰ by providing an essential mode of transport for the city's residents. It operates a network of 21 bus lines that cover the entire city, including peripheral areas like Bonabéri, Ndokoti, and Bonamoussadi. It has the advantage of low transportation cost (150cfa approximately 0.24usd), recognized by nearly four of every five citizen and plays a significant role in social development by offering employment opportunities and training programs for young people thereby improving urban mobility and the socio-economic growth of Douala.

Despite the low transportation cost offered by SOCATUR to citizens, it faces several significant challenges in Douala. One of the primary issues is the aging fleet of buses, which leads to frequent breakdowns and high maintenance costs. Additionally, the company struggles with financial constraints, as urban transportation is a loss-making activity and relies heavily on state subsidies. Competition from informal transport

³³ World Bank. (2018). Project Information Document/Integrated Safeguards Data Sheet (PID/ISDS) - Douala Urban Mobility Project (P167795).

³⁴ Egbenchong & Djoukwo (2024): Urban Road Transport Infrastructure Planning and Development Implications on Socio-Economic Growth in the City of Douala, Cameroon. *International Journal of Innovative Science and Research Technology*, Volume 9, Issue 9, September – 2024

³⁵ Ngwa, A. (2021). Public-Private Partnerships in Urban Transport Development in Cameroon. *Transport Policy*, 98, 1-10.

³⁶ Japan International Cooperation Agency (JICA). (2017). Data Collection Survey on the Transport Network Development in Douala, Republic of Cameroon Final Report

³⁷ Japan International Cooperation Agency (JICA). (2017). Data Collection Survey on the Transport Network Development in Douala, Republic of Cameroon Final Report

³⁸ Kpou, A. (2018). Urban Transport Policy in Cameroon: Challenges and Opportunities. *Journal of Transport Geography*, 70, 1-10.

³⁹ Nguimkeu, A. (2020). "Infrastructure Development and Urban Mobility in Cameroon: A Case Study of Yaoundé. *African Journal of Transport and Infrastructure Research*, 10(1), 45-60.

⁴⁰ <https://fr.wikipedia.org/wiki/Socatur>

operators, such as moto taxis and shared taxis, further complicates SOCATUR's operations. Moreover, the company has faced criticism for contributing to air pollution in the city⁴¹. These challenges highlight the need for modernization and increased investment in Douala's public transport system.

Another urban transport operator includes taxis which are generally painted yellow differentiate them from private owned cars and offer shared and private taxi services in Douala. They play a vital role in Douala's urban transport system by providing a flexible and accessible mode of transportation for residents and visitors. They operate on both a shared and private hire basis, with shared taxis following specific routes and picking up multiple passengers, while private hire taxis can be booked for individual trips. The introduction of ride-hailing services like Yango has further enhanced the convenience and safety of taxi services in Douala, offering features such as GPS tracking and verified drivers.

These operators face numerous challenges that hinders their efficiency and service quality in urban transportation. Some of these challenges range from traffic congestion, which leads to longer travel times and increased fuel consumption. The lack of proper infrastructure, including poorly maintained roads and inadequate parking facilities, further complicates navigation and increases travel times⁴². Additionally, the prevalence of informal transport operators creates intense competition, often leading to fare undercutting and a decline in service standards⁴³. Safety concerns also plague the sector, as drivers and passengers are frequently targets of crime, which discourages potential users from opting for

taxi services⁴⁴. Furthermore, regulatory challenges, including inconsistent enforcement of transport laws and a lack of support from local authorities, exacerbate the difficulties faced by legitimate taxi operators⁴⁵. These factors collectively contribute to a complex environment for taxi services in Douala, impacting their reliability and sustainability.

Motorcycles also referred to as moto taxis or "bendskin" have emerged as a popular mode of urban transportation in Douala, Cameroon, due to their affordability and ability to navigate congested traffic or areas where larger vehicles struggle to navigate. Moto taxis are popular for short trips and are often used by commuters to reach destinations not easily accessible by other forms of public transport. However, several challenges accompany their use. One significant issue is road safety; studies indicate that motorcycle riders are at a higher risk of accidents compared to other vehicle users, with factors such as inadequate road infrastructure and lack of protective gear exacerbating this risk⁴⁶. Additionally, the informal nature of motorcycle taxi services leads to regulatory challenges, including the absence of proper licensing and insurance, which can undermine passenger safety and contribute to traffic chaos⁴⁷. Furthermore, environmental concerns arise from the emissions produced by two-stroke motorcycles, which contribute to urban air pollution, posing health risks to the population⁴⁸. Addressing these

⁴⁴ Ngwa, A. (2019). Safety and Security in Urban Transport: The Case of Douala Taxis. *Cameroon Journal of Transport Studies*.

⁴⁵ Tchouakeu, J. (2021). Regulatory Framework and Its Impact on Taxi Operations in Douala. *International Journal of Transport Policy*.

⁴⁶ World Health Organization. (2018). Global status report on road safety 2018. Geneva, WHO.

⁴⁷ Kouadio, & Tchouakeu, L. (2020). The informal motorcycle taxi sector in urban transport: A case study of Douala, Cameroon. *Transport Policy*, 87, 1-10.

⁴⁸ Adebayo, A., Ojo, J., & Olatunji, O. (2021). Impact of motorcycle emissions on urban air quality: A case study of

⁴¹ Interview with Lydienne Moulouby Ngalle Bibehe, CEO of SOCATUR in Douala (Cameroon), <https://www.codatu.org/>

⁴² Njeuma, J. (2018). Urban Transport Challenges in Douala: A Focus on Infrastructure. *Journal of Urban Planning*.

⁴³ Mokogwu, A. (2020). The Informal Transport Sector in Douala: Impacts and Implications. *African Transport Research Journal*.

challenges is crucial for enhancing the sustainability and safety of motorcycle transportation in Douala. Inter-urban transport buses owned by different individuals or groups; unnamed buses/ cars commonly known as “clando” are also used in the urban center.

Despite the existence of different actors in the Douala urban center to ensure development and safety in the road transport sector, the researchers survey still reveal diversity of challenges in this sector and there calls for quick intervention by state actors in the development of the sector.

Theoretical Framework:

As tool of analysis, the neo-classical economic growth theory developed by Solow in 1957 was employed. Emphasizing the role of technological progress, labour and capital accumulation in driving economic growth, he suggests that a well-functioning and efficient transport system is essential for economic development and growth⁴⁹. In the case of Douala, the infrastructural crisis in the road transport sector can lead to negative effects on the population and nation at large, given the fact that Douala is an economic capital where people from other regions and countries come for business purposes. In another dimension, the improvements in the transport system such as the construction of better roads, can lead to increased economic activity and employment because better roads reduce transportation costs, allowing businesses to operate more efficiently and reach a wider customer base which will in turn stimulate economic activity and attract investments in the urban sprawl. The relationship between neo-classical economic growth theory and road transport policy lies in the role of investment in physical capital, such as transportation infrastructure, in promoting long-term economic growth. Road transport policy which plays a critical role in promoting economic growth by

major cities in Africa. *Environmental Science and Pollution Research*, 28(15), 18945-18956

⁴⁹ National Bureau of Economic Research (NBER). "[Trevor Swan and the Neoclassical Growth Model](#)," Pages ii, 2-3, 10-11, 13.

enhancing connectivity⁵⁰, promoting private investment⁵¹ and improving productivity can be seen as a tool to enhance a country's overall economic performance. Within the context of neo-classical economic growth theory, government intervention is essential in formulating and implementing road transport policy that fosters economic growth. The government is responsible for: infrastructural investment by allocating adequate resources for the construction, maintenance, and improvement of road networks to facilitate economic growth⁵²; regulating transport services by ensuring fair competition, setting safety standards, and regulating pricing⁵³. The relevance of this theory in this study is that, it helps us to understand how improvements in transportation infrastructure and systems can impact economic growth and development. It was very vital for us to employ this theory in this study, as its main focus is to demonstrate the importance of a good transport infrastructure in connecting producers, consumers and markets, as well as in enabling trade and commerce. It calls for the need of investment in transport infrastructure.

Materials and Methods:

Study area:

Douala is situated on the southeastern shore of the Wouri River and served as the capital of the German Kamerun protectorate from 1884 to 1902. It again served as the capital of Cameroon in 1940–46. With its mixture of traditional, colonial, and modern architecture, Douala has grown rapidly since World War II.⁵⁴ The city covers a surface area of 20 248 km² and has a population of 2 865 795 inhabitants (2010 estimates). It is made up of four divisions: Moungo (Nkongsamba),

⁵⁰ Aschauer, D. A. (1989). Is public expenditure productive? *Journal of Monetary Economics*, 23(2), 177-200.

⁵¹ Banister, D., & Berechman, J. (2000). *Transport investment and economic development*. Routledge.

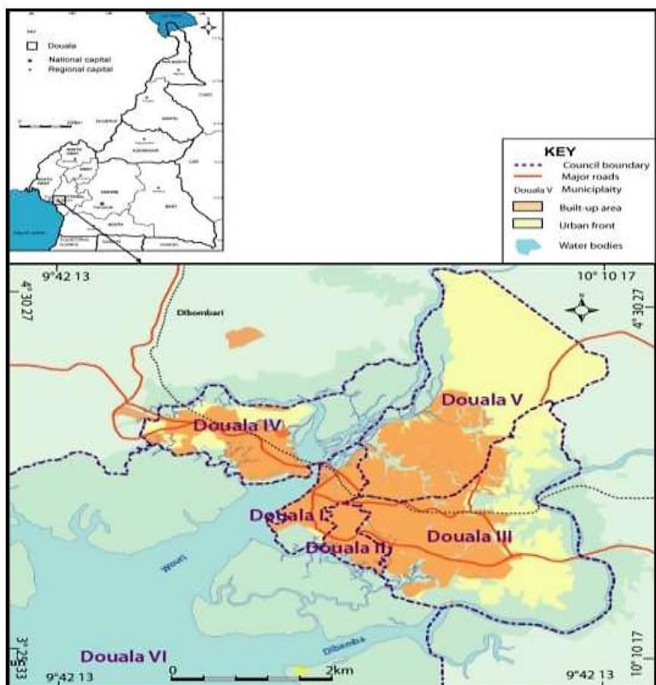
⁵² World Bank. (1994). *World development report 1994: Infrastructure for development*. World Bank

⁵³ OECD Publishing. OECD. (2011). *Towards green growth*. OECD Green Growth Studies. OECD Publishing.

⁵⁴ Retrieved from <https://www.britannica.com/place/Douala>

Nkam (Yabassi), Sanaga-Maritime (Edea), Wouri (Douala) with 34 sub-divisions. Douala the present economic capital of Cameroon, determines a lot about the growth and development of Cameroon. The world population review reports that Cameroon is the 52nd-most populous country in the world, with population of about 52.55 million people. The city of Douala being the economic capital is the most populated town in Cameroon with about 2.45 million residents⁵⁵, and harbours about 80% of the Cameroon's industries. The Douala Urban Council (CUD) founded on 24 September 1987 by Decree no. 87/1366, is a decentralized authority that manages local affairs with the aim of ensuring economic, social and cultural development for the population of the city of Douala. Covering some 210 km², of which 70% is developed and used for industry, highways, road infrastructures, parks, etc., it comprises six local municipalities, including one island. With 1,300 staff, the CUD is actively involved in planning and urban development, and handles highways maintenance, signage, street lighting, drinking water supplies, traffic, transport, public parks, car parks, and so on⁵⁶.

Figure 1: Location of the Study Area



Source: Fieldwork, 2024

Due to the centralized nature of economic activities in Douala by the State, the city has witnessed a tremendous population increase more than any other city in Cameroon⁵⁷. In several cities of Cameroon, urban transport infrastructures such as roads, bus stations (transport agencies, council motor-parks) have contributed immensely to the urban growth of the city⁵⁸. There is the need for the improvement of the road transport infrastructure. The Urban Council of Douala should ensure the improvement of road transport infrastructure which includes well defined bus, taxi and, motorbike stops should be done by the relevant agencies of Government. This will not only restore sanity in the public transport and logistics sector, but will also improve on the efficiency of the public transport sector in the Douala urban center⁵⁹. The objective of this article is not to revisit what has already been done, but to understand the impact of transport infrastructures on the socio-economic wellbeing of the population in the Douala urban center, precisely in Douala IV Division.

⁵⁷ Ngoran, Suinyuy Derrick; Xue, XiongZhi (2015) : Addressing urban sprawl in Douala, Cameroon: Lessons from Xiamen integrated coastal management, Journal of Urban Management, ISSN 2226-5856, Elsevier, Amsterdam, Vol. 4, Iss. 1, pp. 53-72, <https://doi.org/10.1016/j.jum.2015.05.001>

⁵⁸ Chiane Beng J., Gideon S. et al. (2020) Urban Transport Infrastructure and Population Dynamics in Sub-Saharan Africa: Evidence from Bamenda City, Cameroon. International journal of Geography, Environment and Earth Science 24(9): 1-12, 2020; Article no.JGEESI.63520 ISSN: 2454-7352

⁵⁹ Njimanté G.F. & Mbohjim O. M. (2013): Determinants of Traffic Congestion in the Metropolis of Douala, Cameroon: An integrated approach. REVUE DE L'ACADEMIE DES SCIENCES DU CAMEROUN Vol. 11 No. 2 & 3

⁵⁵ World population review 2024 retrievable at <https://worldpopulationreview.com/countries/cities/cameroon>

⁵⁶ Retrieved from <https://www.douala.cm/>

Figure 2: Douala urban center as one of the worst cities in the world



Source: <https://netizensreport.com/these-are-worst-liveable-cities-in-the-world-in-2022/>

Douala is a coastal city located southwest of Cameroon and currently occupies the ninth spot on the top 10 list of the worst cities in 2024 to live in. That's so because it has a score of 43.3 (out of 100) and occupies 164th position on the list of the world's cities to live in, in 2024⁶⁰. Douala IV harbours major commercial activities, and dealers in exportation of household equipment and automobiles usually offload their containers in a quarter in Bonaberi known as Ndobu. The main bus station that serves other main regions like North West, West, south West and Center regions are based in Bonaberi hence, making the zone very busy. It is against this backdrop that we deem it necessary to examine the effects of road transport infrastructure on the wellbeing of citizens.

Methodology:

This study employed a qualitative research design to collect information on transport infrastructure, and its socioeconomic effect on the population in the Douala IV. Qualitative research approaches collect data through observations, interviews, and document analysis. Primary data was collected through surveys, interviews, and focus group discussions with stakeholders such as local government officials, transport authorities, urban planners and residents, while secondary data was gathered from existing reports, government documents, and previous studies on urban transport and socio-economic development in Douala. A comprehensive review of existing literature on urban transport policies, socio-economic development, and their interplay in Douala and similar contexts was done. After observing and gathering information in the area of

study as a researcher for over five years, we found this method very useful. Our immersion in the field and engagement with local communities, policymakers, and other stakeholders to gather qualitative insights and validate findings makes the findings of this work original.

Effects of Road Transport Network on Socio-Economic Development in Douala.

The city of Douala, which is currently on its fast urbanization pace with around 5% population growth per year, projected to be 4 million inhabitants in 2025 from about 2.5 million inhabitants back in 2018⁶¹. We realized from our findings that road transport infrastructures were grossly incapable to meet the demands of the urban population. Different authors have examined this study and their findings revealed that lack of full implementation, funding constraints, corruption and enactments of institutional framework that will give investors' confidence to invest in roads, are factors affecting the road transport policy⁶². Due to the rapid increase in urbanization, traffic congestion (figure 3) has become the order of the day in the Douala IV Urban area. The findings of this work will therefore be centered on the setbacks of poor transport network on socio-economic activities in Douala IV Urban area.

⁶¹ Njimanted G.F. & Mbohim O. M.(2013): Determinants of Traffic Congestion in the Metropolis of Douala, Cameroon: An integrated approach. REVUE DE L'ACADEMIE DES SCIENCES DU CAMEROUN Vol. 11 No. 2 & 3

⁶² Sunusi Abdulkarim et. Al. (2022) Roles of road transport policy on economic development in federal capital territory Abuja, Nigeria: stakeholders perception. *Journal of tourism, hospitality and environment management* (JTthem), Volume 7 Issue 27 (March 2022) PP. 179-197 DOI 10/35631/JTthem.727015

⁶⁰ <https://netizensreport.com/these-are-worst-liveable-cities-in-the-world-in-2022/>

Figure 3: Douala traffic congestion



Source : <https://www.budd-pni.com/port-profile-douala-cameroon/>

1. Increase in transportation cost:

Poor road transport network especially in urban centers like Douala, has led to traffic congestion, which has profound consequences on transportation costs, affecting both private and public transportation. From increased fuel consumption and vehicle wear to higher operational costs for freight transportation and public transit, congestion exacerbates the financial burden on individuals and businesses. Addressing this issue will require a multifaceted approach, including investments in infrastructure, promotion of public transportation, and improvements in traffic management systems. It is essential that governments, urban planners, and transportation stakeholders collaborate to mitigate congestion and its adverse effects on transportation costs. From our field survey, we found that the nature of the road has led to increase in transportation cost, especially during peak hours when traffic congestions slow down movements and road users

are pushed to pay “any price” to reach their job sites or destinations. The roads in Douala urban center specifically in Douala IV have been constructed in a manner incapable of containing the population and activities in the economic capital conveniently. Most of those involved in transporting people and goods usually find themselves in serious traffic that keeps them on the spot for more than three hours in distances that would have been covered for thirty minutes under normal circumstances. This finding goes in tandem with the study conducted by some researchers on the impact of infrastructure, including road conditions on employment in Cameroon which revealed that poor road infrastructure led to higher transportation costs for businesses, and hindered their ability to access markets and attract customers⁶³. Public

⁶³ Mpoame, M. M., & Awono, A. (2017). Implications of Infrastructural Development on Cameroon's Economic Growth and Employment Policy: Evidence from a Vector

transportation such as buses are not immune to the effects of traffic congestion. Buses stuck in traffic experience reduced operational efficiency, leading to increased fuel and labor costs. According to a study by the Union of Concerned Scientists, buses in New York City spend 20% of their operating time stuck in traffic, which could amount to an additional annual cost of up to \$168 million⁶⁴. To combat congestion and improve the efficiency of public transportation, cities may need to invest in dedicated bus lanes, traffic signal optimization, and transit-oriented development.

2. Slowdown of economic activities:

The challenge faced in the transport system that leads to traffic congestions in a town that is supposed to have free flow of economic activities, has slowed down the economic activities and growth. Delays caused by congestion result in reduced productivity for businesses, as employees spend more time commuting instead of working. This can lead to lost wages and decreased economic output⁶⁵. During peak periods of the year like December and August where people are preparing for end of year festivities and back to school, the urban center of Douala is so saturated that many business men who usually come from neighboring towns to buy goods have now resorted to other means of obtaining their goods. It is often said that “time is money”. From field survey, most of these business men and women prefer buying from Nigeria during peak periods, rather than facing the challenge of spending 4 hours on the spot in Douala. Concomitantly, while studying the impact of road infrastructure on employment in Littoral region precisely Bonaberi.

Autoregressive (VAR) Model. *Journal of Economics and Sustainable Development*, 8(5), 104-115.

⁶⁴ Bandivadekar, A., Keoleian, G. A., Denysenko, A., & Bhattacharya, J. (2018). On the road to decarbonization: Traffic congestion slows down the journey. Union of Concerned Scientists. <https://www.ucsusa.org/resources/traffic-congestion-slows-down-journey>

⁶⁵ Durantou, G., & Turner, M. A. (2011). The fundamental law of road congestion: Evidence from US cities. *American Economic Review*, 101(6), 2616-2652. www.aeaweb.org/articles?id=10.1257/aer.101.6.2616

It was found that poor road infrastructure hindered the ability of businesses to operate efficiently, resulting in reduced employment opportunities for the local population. Poor infrastructure is a handicap for business in Cameroon⁶⁶. According to World Bank surveys of companies, the poor quality of transport infrastructure is responsible for around 42% of the productivity gap between Cameroonians. The rest is due to poor governance, bureaucracy and financing constraints. The poor nature of the roads limits the volume of economic activities, thereby limiting the scope of economic activities.

3. Negative impact on mental health:

The impact of a poor transport system on mental health in Douala the economic capital of Cameroon, is multifaceted and significant. The challenges posed by inadequate transportation infrastructure can lead to various stressors that adversely affect the mental well-being of the population. Traffic congestion poses a threat to the mental health of school children. The very young children go through psychological trauma because their parents are forced to wake them from sleep as early as 5am so that they can leave early for school and avoid being hooked up in traffic. Concomitantly, researchers have found that children living in areas of high traffic pollution are most likely to suffer from sleep disturbance, increased level of cortisol (stress of the hormone) and higher levels of anxiety and depression⁶⁷. To overcome the traffic, children are forced to get up quite early and it affects their psychology. This stress can manifest as mood swings, difficulty concentrating and a general decline in overall mental well-being. A study in the UK found that children exposed to heavy traffic were more likely to report feeling anxious

⁶⁶ Nkenda, J., & Nguena, C. (2019). The impact of road infrastructure on employment in Africa: evidence from Cameroon. *African Journal of Economic and Sustainable Development*, 8(1), 14-30.

⁶⁷ Gjestland, T. (2008). Children's exposure to traffic: Data collection and findings from the EU project ART-health. *European Respiratory Review*, 17(111), 97-100.

and worried⁶⁸. During our field survey, we observed from three primary schools that the very young children spend the morning hours in school sleeping because their care givers wake them very early from sleep so as to avoid the traffic. Traffic congestion-induced stress can cause sleep disturbances in children, leading to fatigue, reduced alertness, and poor academic performance.

High transportation costs (as a result of traffic congestion) and low productivity due to delays leads to financial stress. This goes in tandem with the report by the World Bank⁶⁹ which states that, inadequate transport infrastructure can hinder economic growth, leading to job insecurity and financial instability, which are significant contributors to mental health issues. The poor nature of the transport system in our study area contributes to environmental issues such as air pollution and noise, which negatively impact mental health. Research has shown that exposure to high levels of pollution is linked to increased rates of anxiety and depression⁷⁰. In Douala where traffic and industrial activities contribute to environmental degradation, residents may face additional mental health challenges. To mitigate these negative effects on mental health, it is crucial for policymakers and urban planners to prioritize sustainable transportation policies, improve public transportation, and invest in infrastructure that promotes flyovers and traffic lights. Only by addressing these issues can we create an environment that supports the mental well-being of our citizens.

4. High rate of kidnapping:

The economic capital of Cameroon which is Douala, has been grappling with a high rate of

kidnapping, which can be significantly attributed to its inadequate transport infrastructure. The poor state of roads and public transport systems not only hampers mobility but also creates opportunities for criminal activities, including abductions. Following the statistics from the Douala IV police station, aver 200 school children were reported missing during the past two years 2022-2023⁷¹. It is worthy to note that traffic congestion does not directly cause kidnapping, but rather create conditions that increase vulnerability to kidnapping incidents. Considering the infrastructural challenge with the transport system, most divers be it motorcycle, taxi or school buses, are forced to resort to other “quarter roads” in quest of fleeing from traffic in the main road. In the midst of these, kidnappers seize it as an opportunity to take these children to unknown destinations. This finding is in relation with that of other researchers who posit that to avoid traffic congestion, some road users including school bus drivers, motorcycle riders and school children, may opt for alternative routes that are less secure or poorly monitored. This can expose them to potential kidnappers who take advantage of the lack of visibility and security in such areas⁷². The United Nations Office on Drugs and Crime posits that poor urban planning and inadequate road infrastructure can lead to increased traffic congestion, which in turn creates an environment that is more conducive to kidnapping incidents. This situation is exacerbated by weak law enforcement, poor street lighting, and insufficient public safety measures⁷³. The danger of dropping children early in school without proper care at times leads to kidnapping, the congestion and inefficiency of the transport system can delay

⁷¹ Researchers' field survey 2024

⁷² Adeyemi A. Aremu and Charles T. Mbena(2019). Kidnapping and Abduction in Nigeria: An Exploratory Study of Public Perceptions and Private Security, African Journal of Criminology and Justice Studies. Special Issue on Kidnapping and Abduction. Volume 4, Issue

⁷³ United Nations Office on Drugs and Crime. (2020). Global Study on Homicide 2019. Retrieved from https://www.unodc.org/documents/data-and-analysis/gsh/Booklet_5.pdf

⁶⁸ Grundy, E., Matthews, F. E., Batty, G. D., & Pinsent, N. (2017). Wellbeing in an urban environment: Associations with exposure to road traffic noise and air pollution. *Journal of Transport & Health*, 6, 298-305.

⁶⁹ World Bank. (2018). Cameroon: Transport Sector Review. Washington, DC: World Bank.

⁷⁰ Clark, C., Stansfeld, S., & Candy, B. (2014). A systematic review of the evidence on the effect of noise on mental health. *Psychological Medicine*, 44(5), 925-935.

police response times, exacerbating the situation. As a result, improving the transport infrastructure in Douala could be a crucial step in reducing the incidence of kidnapping and enhancing overall public safety.

Conclusion:

It is no doubt to say that the road transport system is a major determinant of development. There is an urgent need for the road transport sector to be improved, which will go a long way to foster development in the urban center and attract more investors. This is in tandem with the recommendation of other researchers who state that, the Urban Council of Douala should ensure the improvement of road transport infrastructure which includes well defined bus, taxi and motorbike stops, which should be done by the relevant agencies of the Government. This will not only restore sanity in the road transport and logistics sector, but will also improve on the efficiency of the transport sector in the Douala Urban center⁷⁴. Despite the diversity of actors (public and private), the urban transport infrastructure still faces serious challenges ranging from severe traffic congestion and recurrent accident and so there is therefore the need to invest in road infrastructure so as to stimulate economic development and create employment opportunities. Actors involved such as road users, driver syndicates at various levels should mobilize and see how this social problem can be inscribed in the government's agenda. Once it is done, a policy to that effect can be made. We therefore recommend urgent road maintenance, the installation of traffic lights at major junctions of the town to control the circulation of vehicles, the building of flyovers to facilitate movement of vehicles and above all, the government of Cameroon should step up its commitment in this sector in order to provide a long-lasting solution plaguing the transport sector in Cameroon.

⁷⁴ Njimanted G.F. & Mbohjim O. M.(2013): Determinants of Traffic Congestion in the Metropolis of Douala, Cameroon: An integrated approach. REVUE DE L'ACADEMIE DES SCIENCES DU CAMEROUN Vol. 11 No. 2 & 3

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