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URBAN TRANSPORTATION AND TRAFFIC CONGESTION MANAGEMENT IN GHANA

“Transforming Ghana’s Transport Infrastructure for Inclusive and Sustainable Growth”

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Presentation Outline

1. THE STATE OF URBAN TRANSPORTATION IN GHANA
2. WHY ARE GHANAIAN CITIES CONGESTED?
3. MOVING PEOPLE AND GOODS: PUBLIC TRANSPORT AND URBAN LOGISTICS
4. SMARTER TRANSPORT: TECHNOLOGY, TRAFFIC MANAGEMENT AND ROAD SAFETY
5. INCLUSIVE AND SUSTAINABLE URBAN MOBILITY
6. INTEGRATING LAND USE, TRANSPORT AND INFRASTRUCTURE FINANCING
7. THE FUTURE OF URBAN MOBILITY AND THE ROLE OF CILT IN TRANSFORMING URBAN MOBILITY IN GHANA

THE STATE OF URBAN TRANSPORTATION IN GHANA





THE STATE OF URBAN TRANSPORTATION IN GHANA





- ☐ Passengers waiting for public transport
- ☐ Tro-tros competing for passengers
- ☐ Street hawking along transport corridors
- ☐ Vendors competing for space at transport stations
- ☐ Pedestrians sharing congested road space
- ☐ Vehicles loading and unloading passengers
- ☐ Taxis competing for passengers





- ❑ Roadside trading encroaching on pedestrian space
- ❑ Long queues at major transport terminals
- ❑ Heavy traffic on major urban corridors
- ❑ Motorists navigating congested intersections
- ❑ Informal loading and stopping along busy roads
- ❑ Pedestrians crossing congested roads
- ❑ Commercial activities along major transport routes
- ❑ Mixed traffic of cars, tro-tros and taxis



THE STATE OF URBAN TRANSPORTATION IN GHANA

- ❑ Ghana is now predominantly urban, with **56.7% of the population living in urban areas in 2021**, compared with 50.9% in 2010 (GSS, 2021)
- ❑ Rapid urbanization is increasing the **number, frequency and distance of daily trips** within Ghanaian cities (GSS, 2021; World Bank, 2025)
- ❑ Urban transport system remains **predominantly road-based**, with tro-tros, taxis, buses and private vehicles forming the major motorised modes (World Bank, 2025)
- ❑ **Tro-tros remain the backbone of urban public transport**, particularly in Accra and Kumasi (OECD, 2024)

❑ Walking and tro-tros dominate daily transport to and from workplace.

Transport modes	Accra	Kumasi	Sekondi -Takoradi	Tema
Walking	32.8	39.3	70.7	38.5
Taxi (shared and individual)	9.8	26.4	6.7	20.5
Trotro and bus	42.3	24.2	18.2	26.1
Private car	11.7	8.0	4.4	10.6
Bicycle	0.8	0.4	NA	1.0
Motorcycle	0.2	0.0	NA	1.7
Other	2.3	1.8	NA	1.4
TOTAL	100.0	100.0	100.0	100.0

Modes of transport to and from workplace, %, by cities (Osei, 2020)

- ❑ In Accra, **95% of the population primarily rely on walking and tro-tros**, yet private cars used by less than 1% of the population occupy about **60% of road space** (OECD, 2024)
- ❑ Taxis occupy a further **15% of road space**, meaning that about **75% of Accra's road space is occupied by cars and taxis** (OECD, 2024)
- ❑ Urban expansion has substantially increased travel distances, with **travel mileage estimated to have increased tenfold over the past 25 years** (World Bank, 2025)
- ❑ Public transport infrastructure and services have **not kept pace with the growth in urban travel demand**, contributing to congestion, spatial exclusion and declining accessibility (World Bank, 2025)

URBAN TRANSPORT PRESSURE IN MAJOR CITIES OF GHANA

- ❑ Major Cities are experiencing **rapid outward urban expansion**, with residential development increasingly occurring on the metropolitan periphery
- ❑ Accra's urban footprint expanded by approximately **400% between 1985 and 2020**, increasing travel distances and pressure on the transport network (OECD, 2025)
- ❑ Many peripheral communities have **poorly connected or unpaved roads**, limiting access to public transport and safe walking routes (OECD, 2024)
- ❑ Transport accessibility is highly unequal: **low-income and peripheral communities depend more heavily on walking and tro-tros**, while higher-income groups have greater access to private cars (OECD, 2024)



- ❑ In Accra, low-income residents' trips were dominated by **tro-tros (40%)** and **walking (38%)**, whereas **87% of trips among the high-income group were made by private car** in the observed travel data (OECD, 2024)
- ❑ Only **20% of Accra residents can walk to at least one market within 30 minutes**, while peripheral communities face much greater accessibility gaps
- ❑ Poor accessibility limits residents' ability to **reach jobs, markets, schools and healthcare facilities efficiently**, particularly in peripheral areas
- ❑ **Kumasi faces similar pressures**, with strong dependence on tro-tros and other road-based public transport alongside rapid urban expansion (OECD, 2024)
- ❑ The combination of **urban growth + longer travel distances + increasing motorisation + inadequate mass transit** is placing growing pressure on Ghana's major urban transport systems (World Bank, 2025)

CONGESTION, SAFETY AND THE ECONOMIC COST OF URBAN TRANSPORT

- ❑ Traffic congestion has become a **defining challenge of urban mobility in Accra and Kumasi**, particularly along major transport corridors and activity centres (OECD, 2024)
- ❑ Congestion results in **longer, slower and less predictable journeys** for commuters, businesses and public transport operators
- ❑ Increasing travel distances and vehicle use are placing additional pressure on **limited road infrastructure and public transport capacity** (World Bank, 2025)
- ❑ The economic burden of congestion includes **lost productive time, higher fuel consumption, increased vehicle operating costs and reduced reliability of goods and passenger movements**



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Everything is Okay!!

**TRAFFIC CRISIS IN ACCRA
CONTINUES, LEAVING
COMMUTERS AND DRIVERS
STRANDED — ARE AGENCIES
FAILING TO COORDINATE?**

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ROAD SAFETY AND URBAN MOBILITY CHALLENGE

- ❑ Road safety remains a major concern: Ghana recorded **14,743 reported road crashes and 2,949 deaths in 2025**, with fatalities increasing by **18.2%** compared with 2024 (NRSA, 2026)
- ❑ Pedestrians remain particularly vulnerable, with **2,561 pedestrian knockdowns recorded in 2025** (NRSA, 2026)
- ❑ The transport challenge therefore extends beyond congestion to include **road safety, accessibility and the efficient movement of people**
- ❑ Ghana needs to move from a **vehicle-centred approach** towards integrated mobility that prioritises public transport, walking, cycling and efficient use of road space (OECD, 2025)

THE REAL CAUSES OF TRAFFIC CONGESTION IN GHANA

- ❑ Congestion is **not caused by inadequate road capacity alone**; it results from the interaction of vehicle demand, land use, traffic operations and transport behaviour
- ❑ Rapid growth in **private vehicle ownership and use** is increasing traffic volumes faster than many urban corridors can accommodate
- ❑ Urban development has often occurred without sufficient coordination between **where people live, where they work and how they travel**, generating long and concentrated commuter flows (OECD, 2024)
- ❑ Major employment, commercial and institutional activities remain concentrated around **limited urban centres and corridors**, creating intense directional traffic during peak periods

- ❑ Inadequate management of **roadside loading, passenger boarding and commercial activities** reduces the effective capacity of already-congested roads
- ❑ **Roadside trading and physical encroachment** reduce carriageway and pedestrian space, forcing vehicles and pedestrians into competing spaces
- ❑ Poorly managed **parking, stopping and loading** results in valuable road and kerb space being occupied for extended periods
- ❑ Weak enforcement and poor coordination of **traffic signals, intersections and traffic regulations** create unnecessary queues and delays



Ghana



Elsewhere



HOW LAND USE AND TRAFFIC OPERATIONS CREATE CONGESTION

- ❑ Transport demand is largely a consequence of **urban land-use patterns**: where housing, employment, markets, schools and services are located determines where and when people travel (OECD, 2024)
- ❑ Rapid peripheral development increases **commuting distances and dependence on motorised transport**, particularly where employment remains concentrated in established urban centres
- ❑ Large markets, shopping areas, schools and commercial activities can generate **intense localised traffic demand** beyond the capacity of surrounding streets
- ❑ In the Kumasi Central Business District, the concentration of **commercial activity, pedestrians, tro-tros, taxis, loading activities and roadside commerce** creates competing demands for limited street space



Makola Market



- ❑ In Accra, major corridors experience recurrent congestion where **high travel demand converges with constrained intersections and competing roadside activities**
- ❑ Congestion is amplified when vehicles **stop, turn, load, unload or park within active traffic lanes**, interrupting continuous traffic flow
- ❑ **Poor intersection geometry, signal timing and lack of coordinated signal progression** can create bottlenecks and repeated stops even where road capacity is adequate
- ❑ Effective congestion management therefore requires **intersection improvement, signal optimisation, parking and loading control, and removal of encroachments** — not road construction alone

WHY ROAD EXPANSION ALONE CANNOT SOLVE GHANA'S CONGESTION PROBLEM

- ❑ Expanding roads can provide **short-term additional capacity**, but increasing traffic demand can progressively absorb the new capacity
- ❑ Additional road capacity may encourage **more private vehicle use and longer-distance travel**, reducing the long-term congestion benefits of expansion
- ❑ Road widening also requires substantial **land, financial resources and construction time**, particularly in already-developed urban areas
- ❑ More road space does not address the underlying problem of **high dependence on individual motorised transport**
- ❑ A city cannot sustainably solve congestion if thousands of people continue to make the same journeys **individually in separate vehicles**



- ❑ Moving more people efficiently requires **higher-capacity transport modes**, rather than simply providing more space for individual vehicles
- ❑ A well-designed bus can transport **many more passengers using substantially less road space per passenger** than equivalent numbers of private cars
- ❑ Investment should therefore shift from a predominantly “**move vehicles**” approach towards a “**move people**” approach
- ❑ Ghana needs a combination of **traffic engineering, demand management, public transport improvement, parking management and integrated land-use planning**
- ❑ The most sustainable solution is to give people a **reliable alternative to the private car**, rather than continuously increasing the space available to cars

PUBLIC TRANSPORT AS THE STRATEGIC SOLUTION TO URBAN MOBILITY

- ❑ Public transport provides the opportunity to **move large numbers of people using less road space per passenger** than private cars
- ❑ Ghana already has a strong foundation for public transport through its extensive **tro-tro and taxi networks**, which can be upgraded rather than simply displaced
- ❑ Existing formal services such as **Metro Mass Transit and Aayalolo-type operations** need stronger integration, reliable scheduling, appropriate fleet capacity and improved service quality
- ❑ Tro-tro operations can be **formalised and modernised** through route rationalisation, safer vehicles, designated stops, improved terminals, digital information and integrated ticketing
- ❑ Public transport should operate as an **interconnected network**, linking high-capacity buses with tro-tros, taxis, ride-hailing services, walking and cycling

- ❑ A properly designed **Bus Rapid Transit (BRT)** system can provide higher-capacity, faster and more reliable movement along major urban corridors
- ❑ BRT effectiveness depends on **dedicated lanes, appropriate stations, intersection priority, reliable operations and feeder services** - not simply larger buses
- ❑ Accra needs stronger integration between **BRT, tro-tros, walking and first/last-mile services** to create a connected public transport system (OECD, 2025)
- ❑ The long-term objective should be an **integrated urban mobility system in which public transport becomes the efficient default choice for large-volume journeys**



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INTELLIGENT TRANSPORT SYSTEMS AND SMART TRAFFIC MANAGEMENT

- ❑ Cities can improve mobility by **optimising existing transport infrastructure through real-time data and digital technologies**, rather than relying only on physical expansion
- ❑ **Intelligent traffic signals** can adjust signal timing according to traffic conditions and improve traffic progression along major corridors
- ❑ **Traffic monitoring centres** can combine CCTV, GPS and traffic-flow data to identify incidents, monitor bottlenecks and coordinate responses in real time
- ❑ **GPS-based fleet tracking, electronic ticketing and real-time passenger information** can improve public transport reliability, operational efficiency and passenger experience
- ❑ **AI and predictive analytics** can help anticipate traffic build-up, detect incidents and optimise network operations before severe disruption occurs



URBAN FREIGHT AND LOGISTICS: THE HIDDEN SIDE OF CITY TRANSPORT

- ❑ Urban transportation is not only about moving people; cities also depend on the continuous movement of **food, construction materials, parcels, retail goods and other commodities**
- ❑ Freight vehicles compete for limited urban road and kerb space with **passenger vehicles, pedestrians and public transport**
- ❑ The growth of e-commerce and home delivery is increasing the importance of **last-mile logistics** within urban areas
- ❑ Uncontrolled loading and unloading can create **short-duration but highly disruptive traffic blockages**, particularly around markets and commercial centres

- ❑ The expansion of activities around the **Tema Port–Accra–Tema metropolitan corridor** increases the need to manage the movement of freight between ports, warehouses, distribution centres and final destinations
- ❑ Urban logistics can be improved through **designated loading zones, consolidation centres, delivery-time management and restrictions on heavy vehicles in sensitive areas**
- ❑ **Off-peak and night-time deliveries** can reduce interaction between freight vehicles and peak passenger traffic where appropriate infrastructure, security and enforcement are available
- ❑ The objective should be to ensure that **goods move efficiently without allowing freight operations to undermine urban mobility**

TRAFFIC MANAGEMENT, ROAD SAFETY AND INCLUSIVE MOBILITY

❑ Efficient traffic management must also address the **safety of people who are most exposed to moving traffic**, particularly pedestrians, cyclists and motorcycle users



❑ Ghana recorded **14,743 reported road crashes and 2,949 deaths in 2025**, while pedestrian knockdowns reached **2,561** (NRSA, 2026)

❑ Road safety therefore requires more than driver education; it requires **safer road design, speed management, enforcement and protection of vulnerable road users**

❑ The increasing presence of **motorcycles and tricycles** requires appropriate regulation, designated operating arrangements and enforcement rather than fragmented controls



- ❑ Ghanaian urban streets should be designed for **people as well as vehicles**, with continuous sidewalks, safe pedestrian crossings, appropriate lighting and accessible facilities (OECD, 2024)
- ❑ Recent research in Accra found **narrow or obstructed sidewalks, inadequate drainage and lighting, and limited accessibility for persons with disabilities**, demonstrating the gap between pedestrian demand and infrastructure provision (Adutwum et al., 2026)
- ❑ Inclusive mobility requires transport systems that respond to the needs of **women, children, older persons and persons with disabilities**, rather than treating the average traveller as the only design user (OECD, 2024)

SUSTAINABLE URBAN TRANSPORT: CLIMATE, ENERGY AND FINANCING

- ❑ Urban transport must be planned around **lower emissions, energy efficiency and resilience to climate-related disruption**
- ❑ Ghana has opportunities to accelerate **electric mobility**, particularly for buses, taxis, motorcycles and high-use commercial fleets
- ❑ EV adoption requires more than vehicles; it requires **reliable electricity, charging infrastructure, technical skills, standards, financing and appropriate policy incentives**
- ❑ The transition to sustainable mobility will require investment, making **public-private partnerships, infrastructure financing and innovative municipal funding mechanisms** increasingly important
- ❑ Sustainable urban transport therefore requires the alignment of **technology + finance + energy + infrastructure + environmental policy** (World Bank, 2025; OECD, 2025)

INTEGRATED PLANNING AND THE FUTURE OF MOBILITY IN GHANA

- ❑ **Land use determines travel demand** where people live, work and access services shapes transport needs.
- ❑ **Compact and connected development** can reduce long-distance travel and car dependence.
- ❑ **Transit-oriented development** should link housing, employment and services with high-capacity public transport.
- ❑ **Digital and emerging technologies** can improve journey planning, payment, traffic management and network monitoring.
- ❑ The strategic question is not “**How many more roads can Ghana build?**” but “**What kind of urban mobility system should Ghana build?**”

How can CLT help Ghana move from reacting to congestion to professionally managing urban mobility?

- ❑ Set professional standards for urban mobility management
- ❑ Train and certify transport professionals in modern mobility practices
- ❑ Support evidence-based solutions to congestion and accessibility
- ❑ Connect government, operators and industry for coordinated action
- ❑ Promote safer, more efficient and sustainable transport operations
- ❑ Turn professional knowledge into practical solutions for Ghanaian cities

Ghana's future transport system must shift from managing individual vehicles to managing the movement of people and goods efficiently, safely and sustainably.

We need professional capacity to plan, manage and operate the system effectively.



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THANK YOU

