Long term Solution to Traffic Jam, Road Injury and Fatality Risks in Uganda

Introduction
Transportation is essential for reducing poverty and promoting inclusive economic growth. When infrastructure is fast, cheap and safe, it facilitates the flow of goods and services, thus promoting competitiveness and; providing people with easier access to jobs and social services.

However, many hurdles need to be overcome before the sector can become a major driver of sustainable growth and development. This includes proper management of Traffic Jam (Congestion) and reduction of Injury and Fatality Risks (accidents).

THEORY OF CHANGE
The ‘Theory of Change’ from Traffic Jam, Injury and Fatality Risks to sustainable growth and development:

Traffic Jam in Kampala City – Uganda
Traffic Jam is the extra-time taken compared to the time taken on the same journey in uncongested conditions or free flow.

The economy of Ugandan is growing, the population increasing and the road network is expanding. However, it is practically impossible to build enough road-infrastructure to comfortably accommodate the exceeding demand for travel without managing congestion. Kampala city is extremely congested; disorderly with traffic and this problem is growing day by day.

Dangers of Traffic Jam/congestion:
Traffic Congestion has direct economic and social costs which in turn impose heavy costs on the National economy.

These costs can damage the competitiveness of Kampala in the regional market and the attractiveness of the city as both a tourist destination and a place to live; such costs include:

- Reduced productive time,
- Loss of investments and jobs,
- Fuel waste;
- Increased risks of collision and costs to motorists and pedestrians;
- Green House Gas emissions (GHGE) polluting the air quality etc.;
Main causes of Traffic Congestion in Kampala City:
Traffic congestion in Kampala mainly originates at road-junctions and roundabouts which in turn extend to the corresponding roads and lanes.
This is due to Competitive Driving as taxis, couriers, delivery trucks, Buses, private vehicles, motorcyclists (Boda-bodas) and pedestrians all competing for the available road-space in order to manoeuvre.

The reason is that roads in Kampala are NOT marked with on road-surface traffic restriction markings.

Tackling traffic Jam (congestion):
Tackling traffic congestion is smoothing the flow of traffic, goods and services; as well reducing the risk of collisions.
The emphasis is not to increase the speed of traffic but to ensure journeys run more smoothly and that the driver or passenger can more reliably estimate the time the journey takes.

Solution to Traffic Jam in Kampala City:
1. Junction-Box
The intersection areas (Junctions) of the road surfaces are marked with “on-road surface restriction markings” known as:
   - The "Junction Box",
   - “Keep Clear” or
   - “Priority” restriction-markings.

A Junction-Box is a road traffic control measure designed to prevent traffic Jam and gridlocks at road junctions, large roundabouts and railway crossings.
A Junction Box is marked on the intersection areas of the road surface regardless of traffic lights in place.

Why the "Junction Box" is such a powerful tool
Because of the three cardinal rules:
1. You MUST KEEP to the correct lane as you enter a junction-box;
2. You MUST NOT ENTER the Junction-Box unless your exit road, lane or railway crossing is clear;
3. You MUST NOT STOP in the Junction-Box unless waiting to turn right when your exit road or lane is clear but being prevented by an oncoming traffic.

2. Parking Restrictions:
On-street parking downtown is on high demand with taxis, couriers, delivery trucks, private vehicles, motorcyclists (Boda-bodas) and pedestrians all competing for the available curb space.
In addition, streets and junctions in these areas are often narrowed with illegal parking, sending pedestrians into the flowing traffic.

NOTE: The minimum parking distance from a junction is 10 metres (32 feet). This allows vehicles to manoeuvre quickly and safely.
Kerbside-side Stand-signs:

These signs cause unnecessary-obstruction along streets; they reduce the road capacity, send pedestrians into flowing traffic putting their live at risk.

They include the following:

- No stopping (Police Notice);
- No stopping (KCCA Notice)
- Reserved Parking notices and blockages and obstruction etc.

The above restrictions should be replaced with on road-surface-restriction-markings.

Examples of road-surface-restriction-markings:
Advantages of on road surface restriction markings:

Road-Markings are the modern way of displaying road-restriction messages to traffic. They are painted on the road surface, giving a clearer message than kerbside-stand-signs which reduce road-width and capacity.

- On road surface restriction markings DO NOT affect or reduce the road capacity;
- They indicate exactly where the restriction starts and where it ends;
- They indicate the times and days of the restriction.
- They give the Driver a chance to concentrate on safety on the road thereby reducing the risk of collisions.

**NOTE:** Some roads in Kampala may NOT be tarmacked but we have a cheap solution.

Alternating Parking:
This approach requires that parking on parallel arterial roads alternate at peak hours of traffic.

This means that during the morning peak hours of traffic thus from **7am to 9:30am**, parking, loading off-loading (waiting) is restricted on ENTRY arterial parallel roads and allowed on the corresponding exit parallel arterial roads.

During the evening peak hours of traffic (**from 4:30pm to 8pm**), parking, loading and off-loading (waiting) is restricted on **EXIT** parallel arterial roads and allowed on the corresponding entry arterial parallel roads.

**Required markings:**
- Alternating Parking signage on parallel arterial roads;
- No waiting at any time markings;
- No waiting during times given;
- No stopping at any time (Red route) e.g. at Bank of Uganda;
- No loading/Off-loading (especially Taxis) etc.

At the moment even **NO loading** is controlled by manpower in Kampala City.
IMPLEMENTATION:
Marking roads with on road-surface restrictions as indicated in the “Traffic congestion Management Plan” for Kampala by RSI-Uganda.

This Plan is already delivered to the following planning authorities:

- Kampala City Council Authority (KCCA).
- The Uganda Traffic Police;
- National Roads Safety Council (NRSC Ministry of works);

This shall be done in partnership with KCCA.

You can download a free copy on our website.

Enforcement methods:

1. **The Traditional-enforcement method:**
   In the current traditional-enforcement method, a number of groups are deployed to control Traffic at the expense of a Tax-PAYER.

   **These include:**
   - The Traffic Police;
   - Traffic Guides;
   - Traffic wardens etc.

   Though doing a good job, these groups risk their lives by standing in front of the flowing traffic to STOP vehicles from obstructing other Traffic when their EXIT IS NOT CLEAR. This is because, roads in Kampala are NOT marked with restriction markings.

   In any case, deploying manpower is a NOT A VIALBLE SOLUTION to managing traffic in a City. This is because manpower cannot be deployed everywhere, their locations are familiar to violators who normally warn one on other of their presence.

   The above groups can instead do a better job by Training Drivers in Theory and Hazard perception to instil discipline and earn a decent living.

2. **Modern-enforcement system...**
   The enforcement is done by the “MESS system” (Mobile Electronic Surveillance System). This system does not require the hectic traditional method of man power but uses GPS (Global Positioning System). This system is unpredictable and can NOT be corrupted.

   It pin-points the offender’s position on the road and the vehicle registration number plate from the comfort of the monitoring office. This can be done in partnership with the Uganda Traffic police.

PENALTIES
Unlike the traditional method, the morden method generates revenue.
Our solution to reduce Traffic Jam, Injury and Fatality Risks targes that, traffic offenders instead become a Revenue-base to the Government other than a burden to a Tax-payer as it is today.
People don’t fear the Law but loses and fines. When they collide or crash thus a loss, when they mess it should be a fine so; to effectively enforce the restrictions, offenders pay fines.
There are two ranges of traffic offences that lead to a fine:
- Moving offences;
- Unnecessary obstruction.

This innovation targets the “Unnecessary obstruction” and it does not interfere with normal duties of the Traffic Police of mainly “Moving offences”.

**Solution to Road Injury and Fatality Risks (Accidents)**

**Accidents** suck up people’s ability to work, increases poverty and suffering to the victims, their loved ones and the human society as a whole.

The revenue collected as **obstruction penalties** is instead used to improve the safety of road-users by introducing a mechanism to enforce the **Highwaycode** as follows:
- Build computerised Test Centres, to test novice (learner) drivers and those already having driving permits on Theory and Hazard perception...
- The aim is to reinforce the **basic skills** required of drivers before getting on the road and; to **RAISE** the **NEED OF STUDYING THE HIGHWAYCODE**;
- The **TESTS** should be compulsory before one gets a Driving Permit.
- Sustain and improve the system.

**Counterpart driving licence:**
Successful drivers are given Certificates or Counterpart-driving-licences. When a drive commits a traffic offence, **Penalty-points** are deducted from his Counterpart-licence until such a time that his Driving licence is cancelled and he has to **REDO** the Tests.

**Evaluation of the proposed system:**
This is a long-term strategy that will bring lasting social change to name but a few:
- Improved/streemlined traffic flow;
- Improved movement of goods and services;
- Increased productive time that is otherwise waste in unpredictable journey times;
- Reduced fuel wast in traffic Jam;
- Reduced risk of road crashes, collision and costs to motorists;
- Reduced risk of accidents to pedestrians especially to the vulnerable;
- Reduced Green House Gas emissions (GHGE) polluting the air quality;
- Reduced diseases to urban inhabitants caused by breathing in excess exhaust fumes;
- Created Revenue source for the country and jobs;
- Improved investment opportunities and competitiveness of Kampala in the regional market;
- Improved attractiveness of the city as both a tourist destination and a place to live.

**CLOSING REMARKS:**
Traffic Congestion, Road Injury and Fatality Risks in Uganda is an alarming public out cry.
The initiatives presented have successfully worked in many countries especially **Great Britain** of which Uganda was a Colony.
The planning Authorities can play an important role in ensuring that these initiatives are carefully considered to form part of the long-term planning for Kampala road-network.

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