

WALKING BY DEFAULT, NOT BY DESIGN

NMT Infrastructure Deficits & Transit-Oriented Development Potential along Kitwe’s Emerging Dual Carriageway Corridors

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1 BACKGROUND & PROBLEM

Most Zambians **walk and cycle out of necessity** — yet streets are designed for cars they don’t own.

Kitwe in focus: new Ndola–Kitwe and Kitwe–Chingola dual carriageways are reshaping connectivity **without** transit-oriented development — entrenching auto-dependence in a city of pedestrians.

70%

of daily trips are on foot or in informal minibus

>60%

of road fatalities are pedestrians or cyclists

<10%

of households own a private vehicle

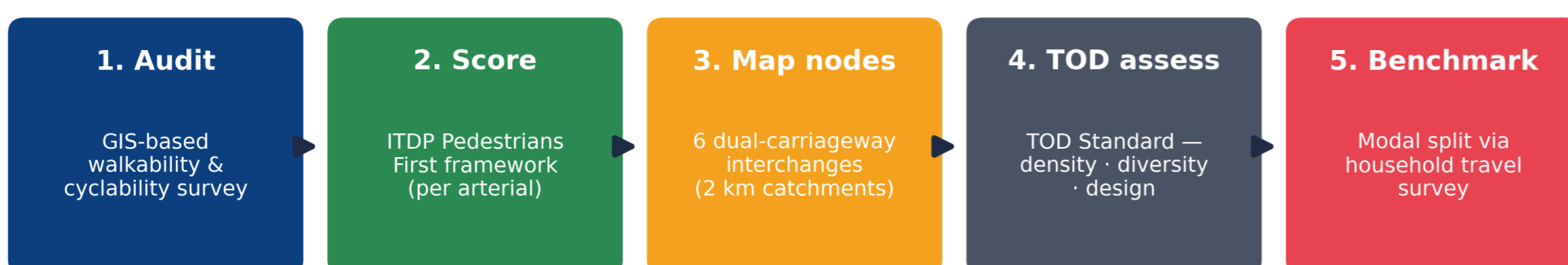
2 AIM & RESEARCH QUESTION

Q. Will Kitwe’s new dual carriageways **entrench car-centric futures** — or unlock **walkable, transit-oriented streets**?

Aim. Quantify NMT-infrastructure deficits and TOD readiness at six interchange nodes — and identify retrofit windows before the corridor configuration locks in.

3 METHODS

METHODS WORKFLOW



Audit. GIS-based walkability & cyclability survey within 2-km catchments of Kitwe’s arterials and dual-carriageway interchanges. **Score.** ITDP Pedestrians First framework. **TOD.** ITDP TOD Standard at 6 nodes. **Benchmark.** Modal split via household travel survey.

5 INTERPRETATION & IMPLICATIONS

The corridor configuration that solidifies in the next 5–10 years will determine **decades of mobility outcomes**. Kitwe’s pedestrians cannot wait for hypothetical future motorisation: **design must follow demand** — and the demand is **walking**.

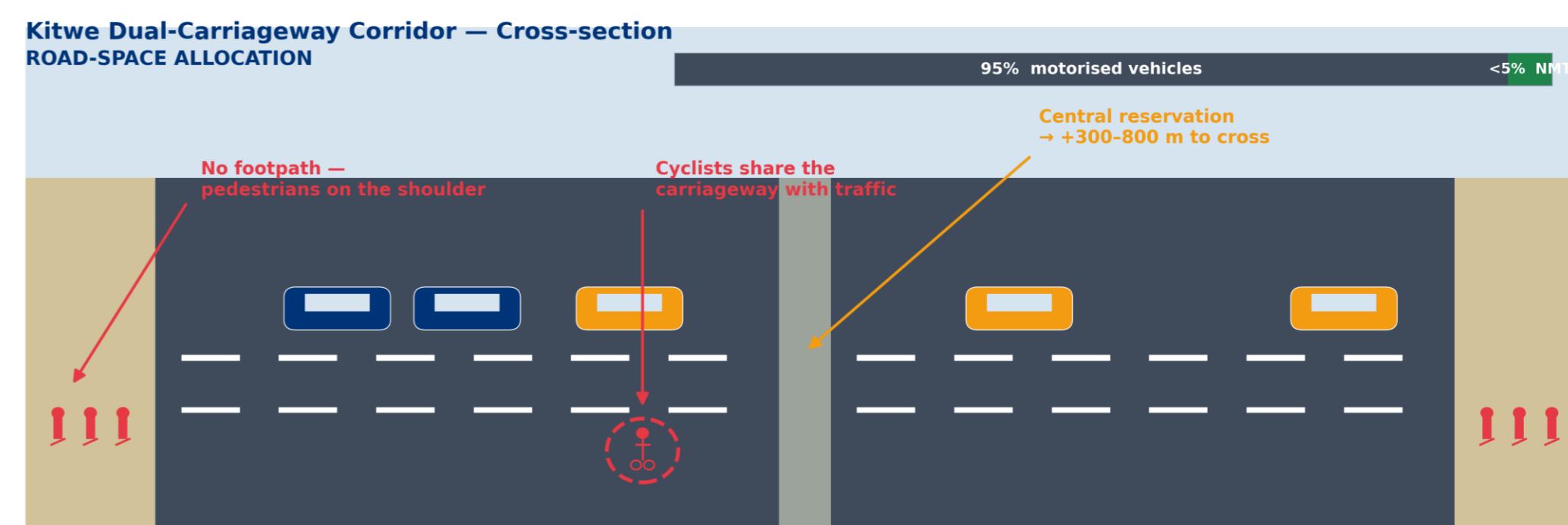
7 REFERENCES

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- ITDP (2017). TOD Standard, 3rd ed.
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- Kitwe City Council (2023). Integrated Development Plan.

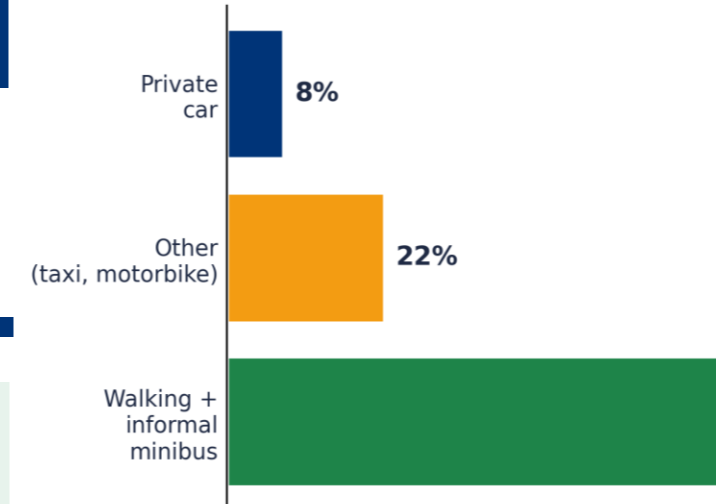
Acknowledgements. Road Development Agency, Kitwe City Council, and household-survey respondents.

4 KEY RESULTS — THE NMT GAP

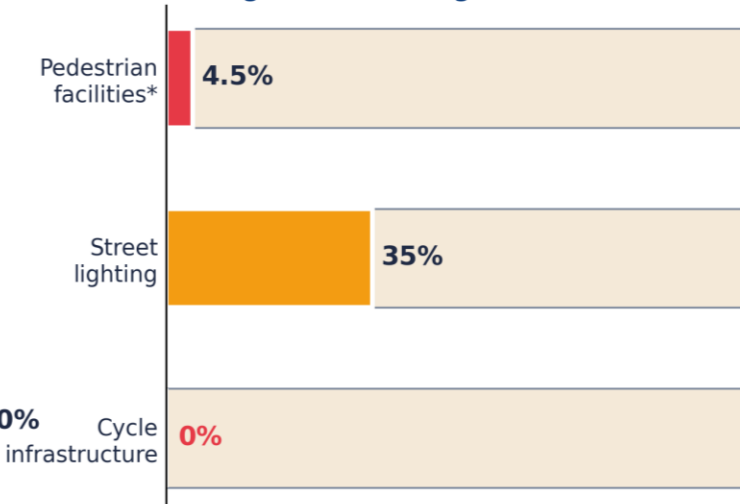
Walking by Default, Not by Design — NMT & TOD deficits on Kitwe corridors



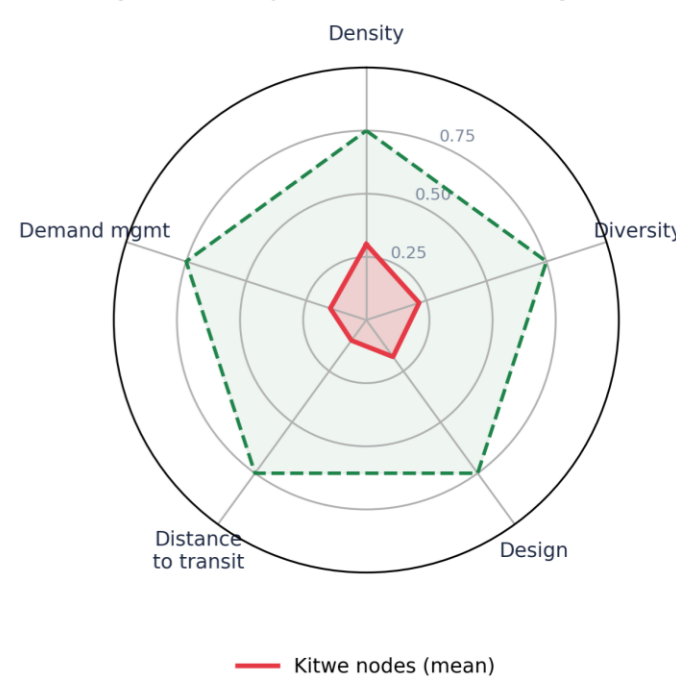
Modal share vs car ownership (70% walk; <10% own a car)



NMT facility coverage on Kitwe arterials (% segments meeting ITDP minima)



TOD readiness — 6 interchange nodes (scores 0-1, ITDP TOD Standard)



Pedestrian facilities. Fewer than 5% of arterial road segments meet ITDP minimum pedestrian standards.

Cycle infrastructure. Purpose-built cycle infrastructure is **absent across the entire surveyed network**.

Severance. Grade-separated interchanges add **300–800 m** to pedestrian crossings — a barrier for NMT users.

TOD readiness. Uniformly low across nodes — single-use zoning, no scheduled feeder transit, no mixed-income housing near transit.

Safety & cost. Copperbelt = **15% of national road crashes**; nationwide injury cost **≈ 4.7% of GDP**.

6 CONCLUSION — TAKE-HOME MESSAGE

PRIORITY INTERVENTIONS — close the NMT/TOD window



DESIGN FOR WHO WALKS

Retrofit footpaths, install cycle networks, overlay mixed-use zoning, formalise feeder transit — **before** the corridor locks in.

8 JOIN THE DISCUSSION

Should **every** new arterial in Africa be required to include a protected cycle lane?

What **TOD lever** has worked in your context — zoning, transit, or street design?

Drop a note: *one corridor in your city that needs retrofitting first.*

9 CONTACT

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