

RECONCILING NET-ZERO ASPIRATIONS WITH INFORMAL SETTLEMENT PROLIFERATION

A Spatial Analysis of Strategic and Statutory Planning Instruments in Kitwe, Zambia

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1 BACKGROUND & PROBLEM

Sub-Saharan cities face a **dual imperative**: **decarbonise** AND **alleviate poverty**.

Kitwe in focus: the IDP projects 1 M+ residents by 2035 while **19 informal settlements** house most low-income residents — outside statutory coverage.

1 M+

projected population by 2035

19

informal settlements outside statutory plans

<30%

of peri-urban zones with statutory coverage

2 AIM & RESEARCH QUESTION

Q. How can **strategic net-zero intent** be made **statutorily enforceable** in a city where **informal settlements outpace planning**?

Aim. Map the bridging mechanisms — and gaps — between Kitwe’s strategic climate instruments and statutory planning controls, using LULC change as the empirical lens.

3 METHODS

METHODS WORKFLOW



GIS. Supervised LULC classification of Landsat scenes (1990, 2005, 2020); spatial metrics for built-up vs forest, biodiversity-corridor and tailings-buffer encroachment. **Policy.** Content analysis of IDP, 8NDP, Climate Change Act #18/2024, NDC 3.0. **Interviews.** Planning officers, ward councillors, community leaders.

5 INTERPRETATION & IMPLICATIONS

Net-zero pledges **stay aspirational** until they are written into **binding local area plans**. Without this, every new informal hectare in former miombo is a **decarbonisation debt** accruing in real time.

7 REFERENCES

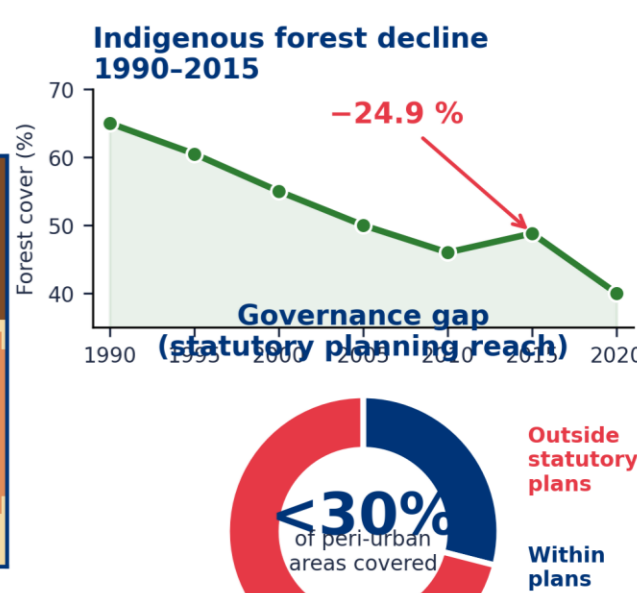
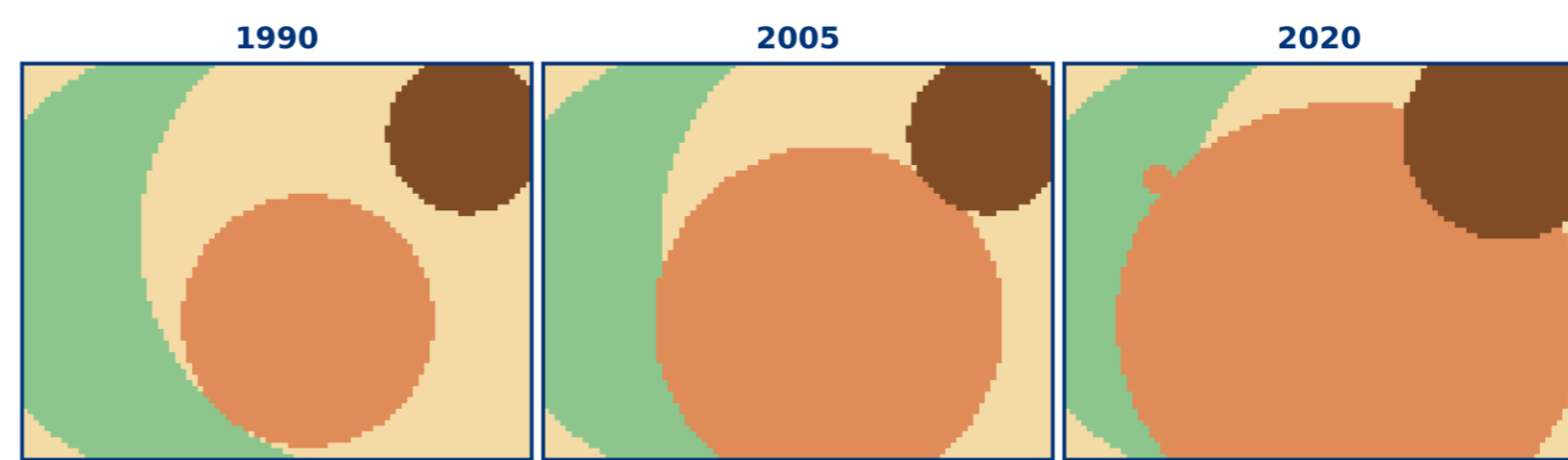
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Acknowledgements. Kitwe City Council planning department, ZEMA, ward councillors, and community leaders.

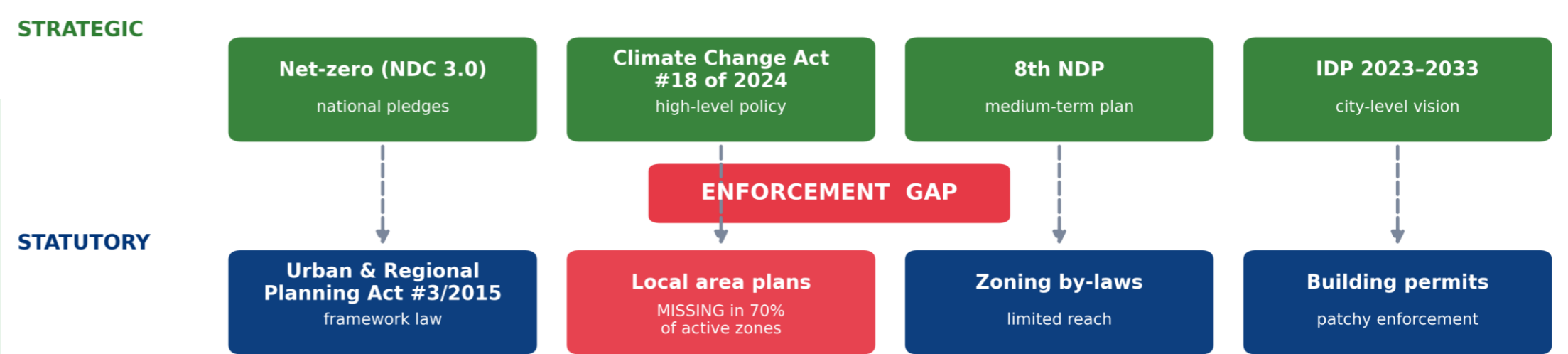
4 KEY RESULTS — THE GOVERNANCE GAP

Reconciling Net-Zero with Informal Settlement Proliferation in Kitwe

Land-cover change in Kitwe district (1990–2020)
Built-up expansion swallows miombo woodland & cropland



DUAL-TRACK FAILURE — strategic intent vs statutory enforcement



- Land-cover change.** 45.2% of Kitwe district’s land cover changed in 30 years; built-up expansion concentrated in former miombo woodland.
- Forest decline.** Indigenous forest cover fell **–24.9%** between 1990 and 2015.
- Governance gap.** Statutory planning covers fewer than **30%** of actively developing peri-urban zones — settlements encroach onto tailings-adjacent land.
- Dual-track failure.** Strategic instruments (NDC 3.0, Climate Act) lack **statutory teeth**; statutory tools lack **spatial reach** into peri-urban informality.

6 CONCLUSION

PRIORITY INTERVENTIONS — bind strategic intent to statutory teeth



BIND THE PLAN. PROTECT THE GREEN.
Co-produced local area plans turn net-zero rhetoric into **spatially binding** development controls.

8 JOIN THE DISCUSSION

Should NDC commitments be legally binding on **every** local area plan?
What **biodiversity-offset mechanism** has worked in your context?
Drop a note: *one strategic plan in your city that has no statutory teeth.*

9 CONTACT

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