

## FROM EQUALITY TO EQUITY IN A POST-INDUSTRIAL MINING CITY

*Spatial Disparities in Service Access and Social Protection across Kitwe's Formal–Informal Settlement Continuum*

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### 1 BACKGROUND & PROBLEM

SDG 11 mandates inclusive, safe, resilient cities — yet **equality ≠ equity**.

**Kitwe's urban fabric:** 24 formal + 19 informal settlements within one municipal boundary, with sharply divergent access to healthcare, education, water & social protection.

**66%**

of population under age 25

**35.9%**

Copperbelt poverty rate

**80–90%**

employment in the informal sector

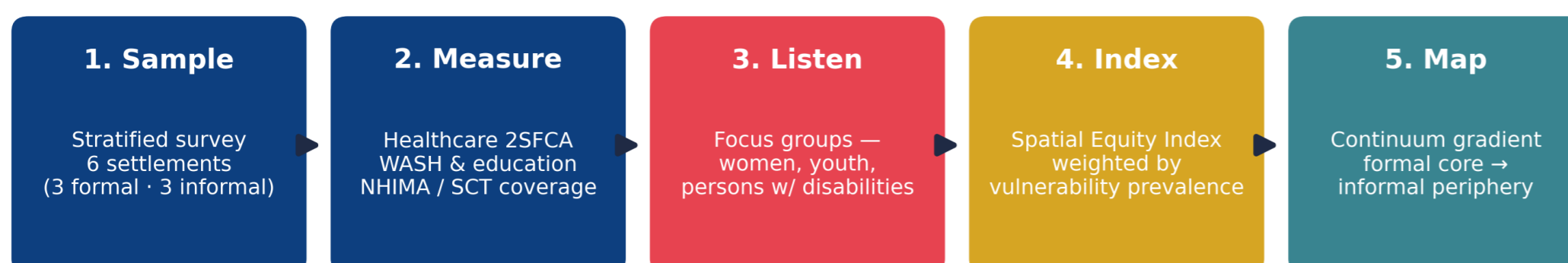
### 2 AIM & RESEARCH QUESTION

**Q.** Where, and for whom, does **uniform service delivery** fail to deliver **equitable outcomes** in Kitwe?

**Aim.** Quantify spatial disparities and calibrate vulnerability-weighted policy across the formal–informal continuum.

### 3 METHODS

#### METHODS WORKFLOW



**Design.** Stratified cross-sectional survey + focus-group dialogue. **Healthcare access.** Two-step floating catchment area (2SFCA). **Equity index.** Indicators weighted by vulnerability prevalence per zone.

### 5 INTERPRETATION & IMPLICATIONS

Disadvantage tracks **distance from the formal core** and **proximity to mine-waste sites**. Uniform delivery reproduces inequity; **vulnerability-weighted allocation** is required to translate SDG 11 into lived reality.

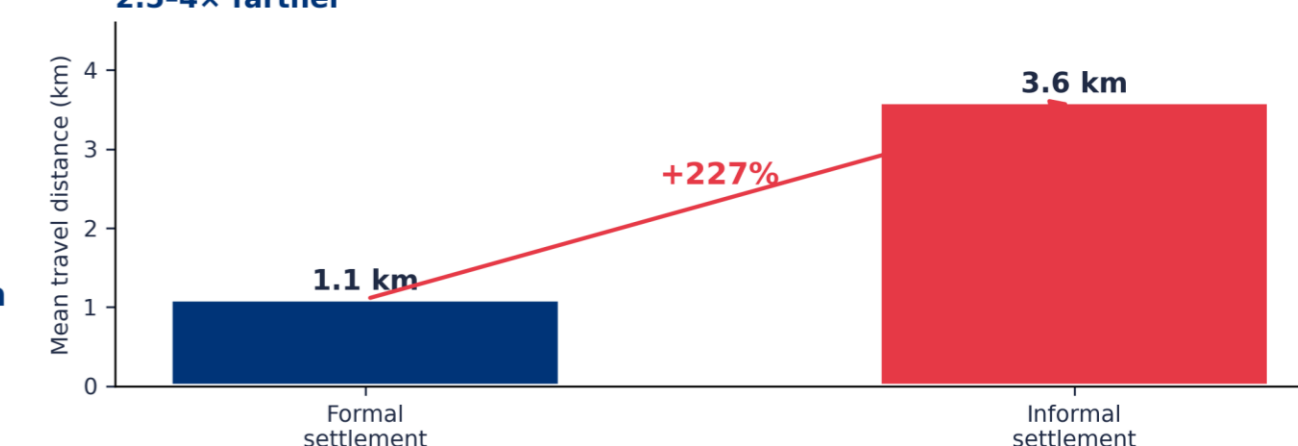
### 7 REFERENCES

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- Luo, W. & Wang, F. (2003). Measures of spatial accessibility to health care (2SFCA). *Env. & Plan. B*, 30(6).
- Republic of Zambia (2023). Social Cash Transfer Programme — Annual Report.
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**Acknowledgements.** Kitwe City Council, ward representatives, and community focus-group participants.

### 4 KEY RESULTS — THE EQUITY GAP

#### From Equality to Equity — Spatial Disparities across Kitwe



#### Child stunting (<5 yrs) — equity gap nearly 2x

**25%**

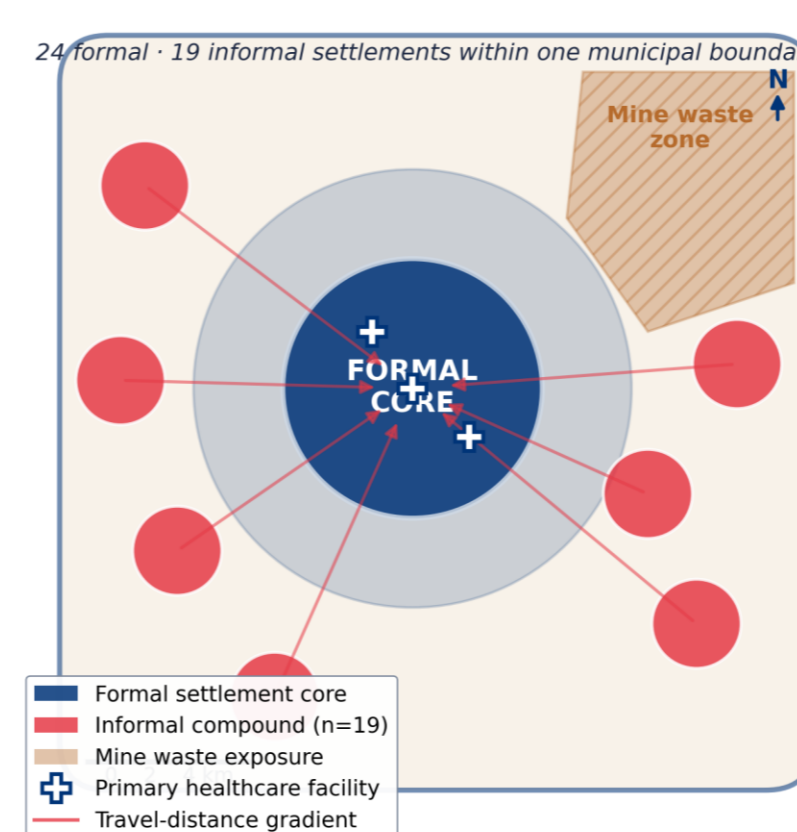
Child stunting  
Planned/formal areas

**48%**

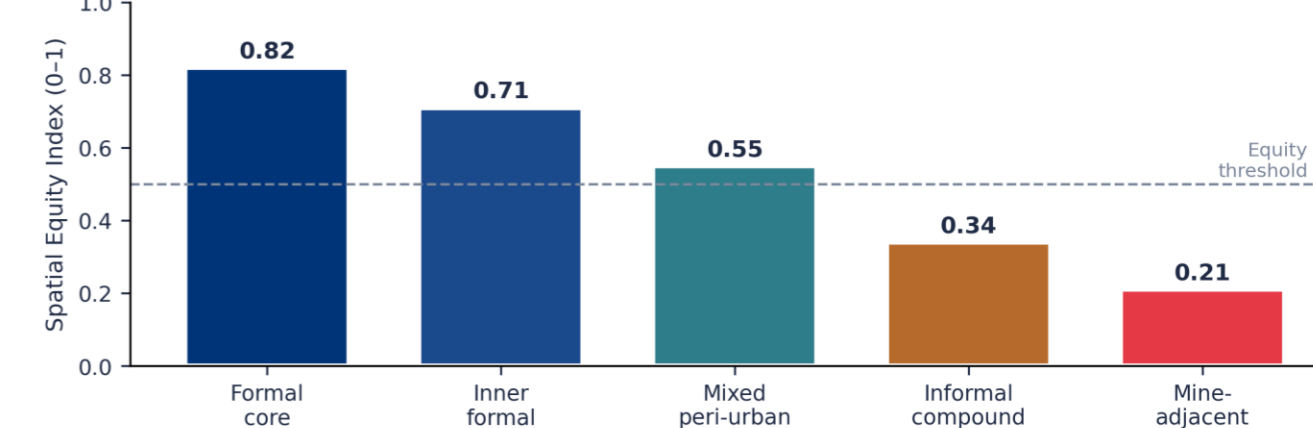
Child stunting  
Low-income compounds

Source: Kitwe survey, n=6 settlements (3 formal, 3 informal)

#### Kitwe — Formal–Informal Settlement Continuum



#### Equity gradient — disadvantage rises with distance from formal core



**Distance.** Informal residents travel **2.5–4x farther** to reach primary care; the national 1:12,000 doctor ratio masks far worse peri-urban ratios.

**Coverage.** 880,000 households on Social Cash Transfer — yet **mobile urban populations** are excluded by rural-designed targeting.

**Outcomes.** Child stunting **48%** in low-income compounds vs **25%** in planned areas.

**Gradient.** Spatial Equity Index falls from **0.82** in the formal core to **0.21** in mine-adjacent compounds.

### 6 CONCLUSION

#### PRIORITY EQUITY INTERVENTIONS



**Extend NHIMA**  
Insurance coverage for informal populations



**Satellite clinics**  
Place primary care INSIDE compound areas



**Reform SCT**  
Targeting criteria for MOBILE urban households



**Vulnerability weighting**  
Replace uniform allocation with equity-weighted budgets

## EQUITY ≠ EQUALITY

Spatially targeted, vulnerability-weighted policy is the path from *uniform service delivery* to inclusive, equitable cities.

### 8 JOIN THE DISCUSSION

- Should NHIMA be **automatic** for residents of declared informal compounds?
- Which **vulnerability indicators** best capture mobile urban poverty?
- Drop a note below: *one policy lever your city is missing.*

### 9 CONTACT

Scan for the full paper  
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