



Fairly Simple

Attempting Practical, Transparent Property
Valuation in Sierra Leone

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Outline

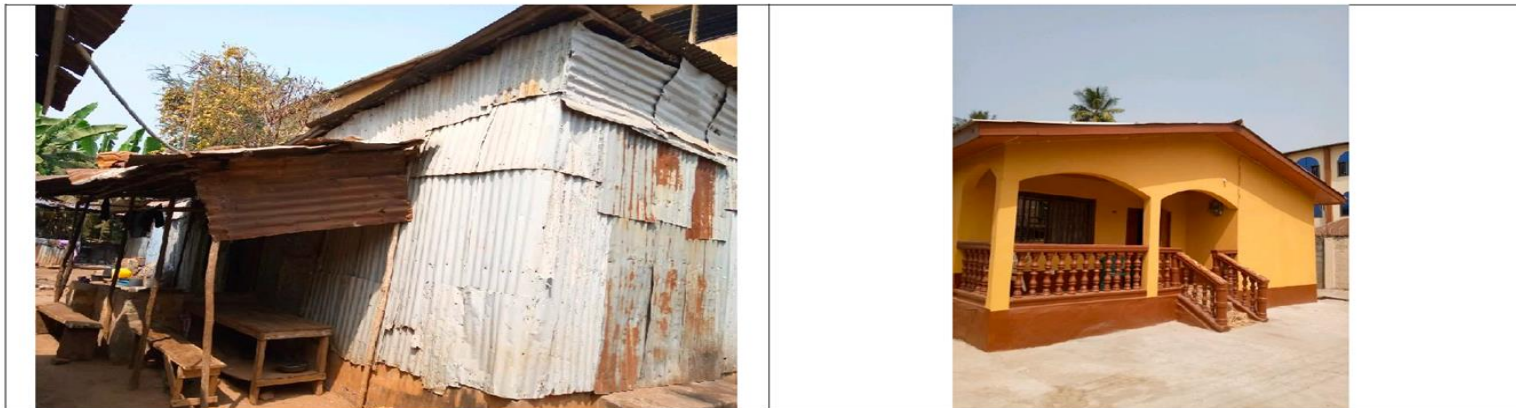
- **Challenges associated with traditional valuation methods**
 - **Implementing a simplified property valuation system**
 - Methodology
 - Implementation
 - Freetown case study
 - Kenema case study
 - **Impact, lessons learned and next steps**
- 



Traditional approaches to property valuation in Sierra Leone

Property valuation in Freetown

- In Freetown – adjusted area-based property valuation that was
 - Costly and time-consuming, leading to incomplete and outdated rolls
 - Highly inaccurate and regressive
 - Opportunities for collusion



Propid: 1b924a2c	No finish
Domestic property	No Fence
Ward: 430	
Street paved	
Like New Condition	Roof: Zinc / Metal Sheet
No Street Light	Roof Condition: Bad
Minor Road	Windows: Wood
Easy Access	Veranda: None
Open Drainage	No Security
No Special Features	Air Conditioning: No
Potential to Build: Medium	Garage: None
Water: None	No Outbuilding
Traditional Design	No Pool
Wall Material: Zinc	516 sq. feet
Wall Condition: Bad	FCC Tax: 125'000
No finish	New Tax: 57'570

Propid: 91f93009	Wall Finish: Painted or Whitewashed
Domestic property	Fenced
Ward: 430	Fence: Masonry
Street paved	Fence: Good Condition
Like New Condition	Roof: Zinc / Metal Sheet
No Street Light	Roof Condition: Good
Minor Road	Windows: Sliding panels
Easy Access	Veranda: Open
Open Drainage	Security
No Special Features	Air Conditioning: No
Potential to Build: Small	Garage: None
Water: Guma	No Outbuilding
Traditional Design	No Pool
Wall Material: Masonry	530 sq. feet
Wall Condition: Good	FCC Tax: 125'000
Wall Finish: Painted or Whitewashed	New Tax: 1'013'827



Kenema

Kenema

- Had property tax reform in 2010
- Adopted a system for progressive taxation, simplification, transparency. Image on right is RDN from 2010 system
- Challenges:
 - Data was stored in a Microsoft Access database with manual entry from paper forms. Vulnerable to tampering, entry errors, and data loss
 - Much of data in the system is more than 10 years old
 - Historical data is often not recorded (past rates and payments)
 - Producing Rate Demand Notices is inefficient using current system (individually printed)

KENEMA CITY COUNCIL DATA COLLECTION ON PROPERTIES AND BUSINESSES

Enumerator _____ Date (d/m/y) _____

1. Street Name : _____ Ward _____ Section _____
2. Old House No / Letter : _____ 5. Street Paved: ☐ Yes ☐ No
4. New House No/ Letter : _____ *Street Frontage*
Style

5. Status of property ☐ Usable building ☐ Destroyed ☐ Under construction ☐ Land

6. Use of property: ☐ Residential ☐ Commercial ☐ Mixed ☐ Other _____

7. Number of Floors ☐

8. Construction Type *(use + greater value)*
☐ Mud ☐ Concrete ☐ Wattle ☐ Zinc ☐ Brick ☐ Board/Timber

9. Roof Type
☐ CI Sheets ☐ Thatch ☐ Tarpaulin ☐ Tile ☐ Asbestos

10. Toilet facilities
☐ Flush Inside ☐ Latrine ☐ Neighbor ☐ None ☐ Other _____

11. Water Supply
☐ Protected Well ☐ Unprotected Well ☐ Tap inside ☐ Tap outside ☐ Other _____

12. BKPS Supply ☐ Yes ☐ No

13. Owner Name: _____

14. Is property owner also the occupier? ☐ same ☐ not

15. Contact details of Owner _____ Phone No. _____

16. For first or main building No. of Rooms _____ Area(Sq.ft.) _____ x _____

If more than one building in compound, or more than one apartment in building

17. Tenant: _____	No. of Rooms _____	Area(Sq.ft.) _____	x _____
18. Tenant: _____	No. of Rooms _____	Area(Sq.ft.) _____	x _____
19. Tenant: _____	No. of Rooms _____	Area(Sq.ft.) _____	x _____
20. Tenant: _____	No. of Rooms _____	Area(Sq.ft.) _____	x _____
21. Tenant: _____	No. of Rooms _____	Area(Sq.ft.) _____	x _____

If commercial or part commercial

22. Business type ☐ Shop ☐ Office ☐ Other _____

23. Is property owner same as business owner? ☐ same ☐ not

24. If not same, details of business owner _____

Office Entry
Checked by : _____
Entered by : _____
Index : _____



Implementing a simplified valuation approach in Freetown and Kenema



Market-based versus Simplified Valuation Systems

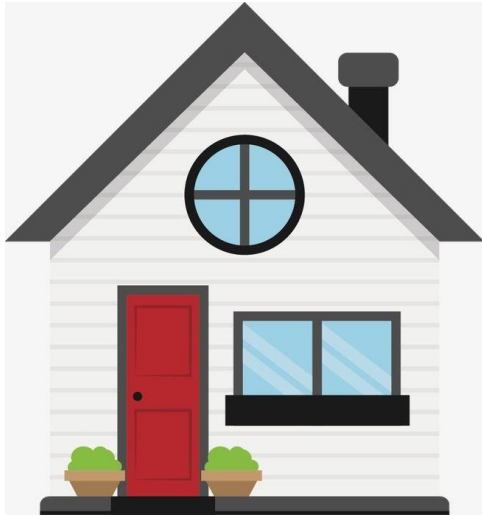
Market-based systems...

- ❖ Aim to estimate the market value of individual properties
- ❖ Place the highest property tax burden on the most valuable properties
- ❖ Is conducted by highly trained staff from valuation departments
- ❖ Rely on underdeveloped and opaque property markets
- ❖ Require significant local capacity to assess all properties
- ❖ Valuations subject to appeals due to the lack of transparent basis

Simplified Property Valuation Systems...

- Aim to equitably distribute the relative tax burden across the population
 - Use surface area as a base, but makes qualitative adjustments based on easily-observable external property characteristics
 - Uses simple IT solutions to streamline data collection
 - Data collection can be conducted by unspecialized enumerators (e.g., only high school education)
 - Property valuation is transparent and easy to understand
- 

Simplified valuation - illustration



Le 1 million



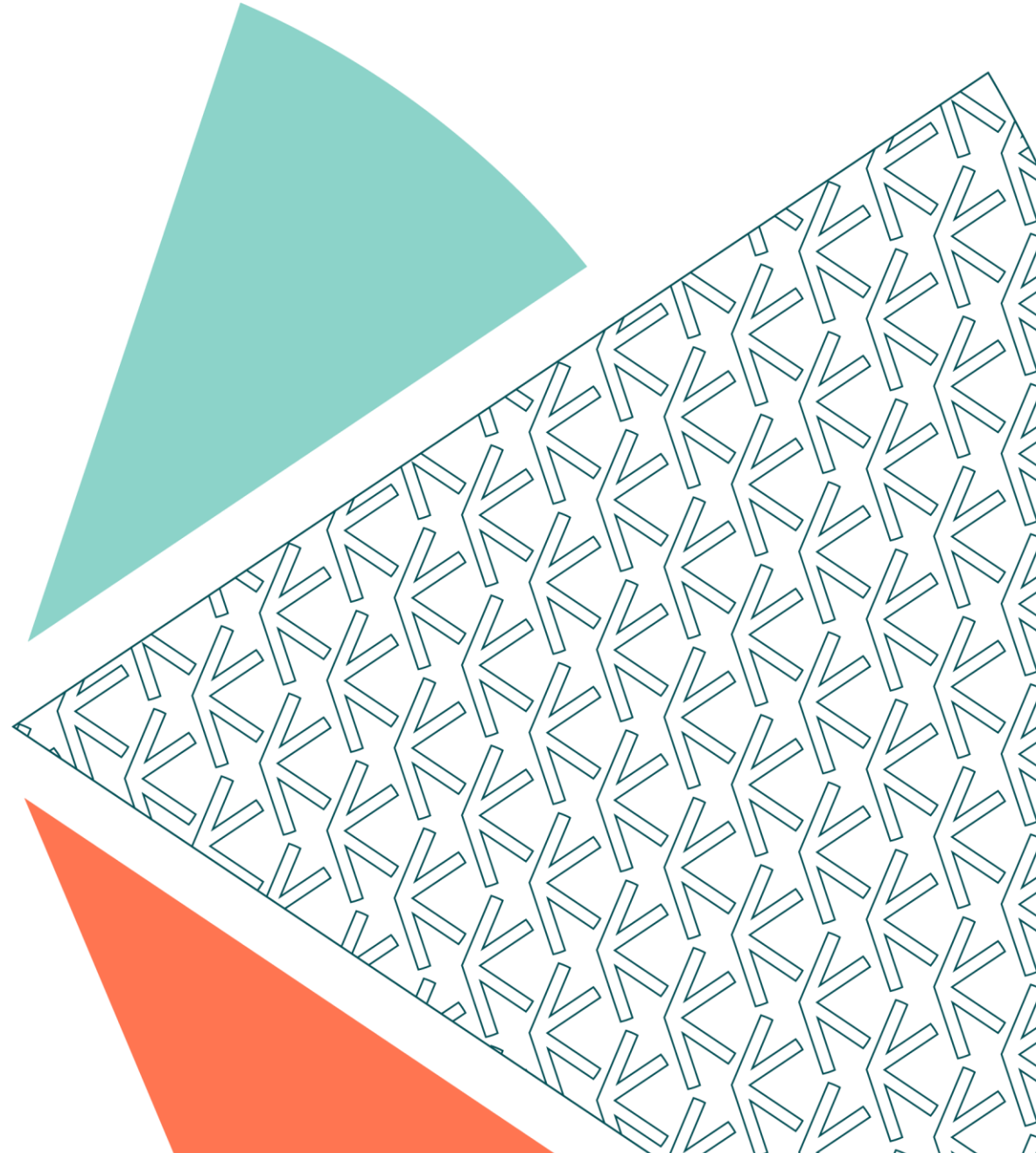
Le 2 million



Le 4 million



6-Step Valuation Process

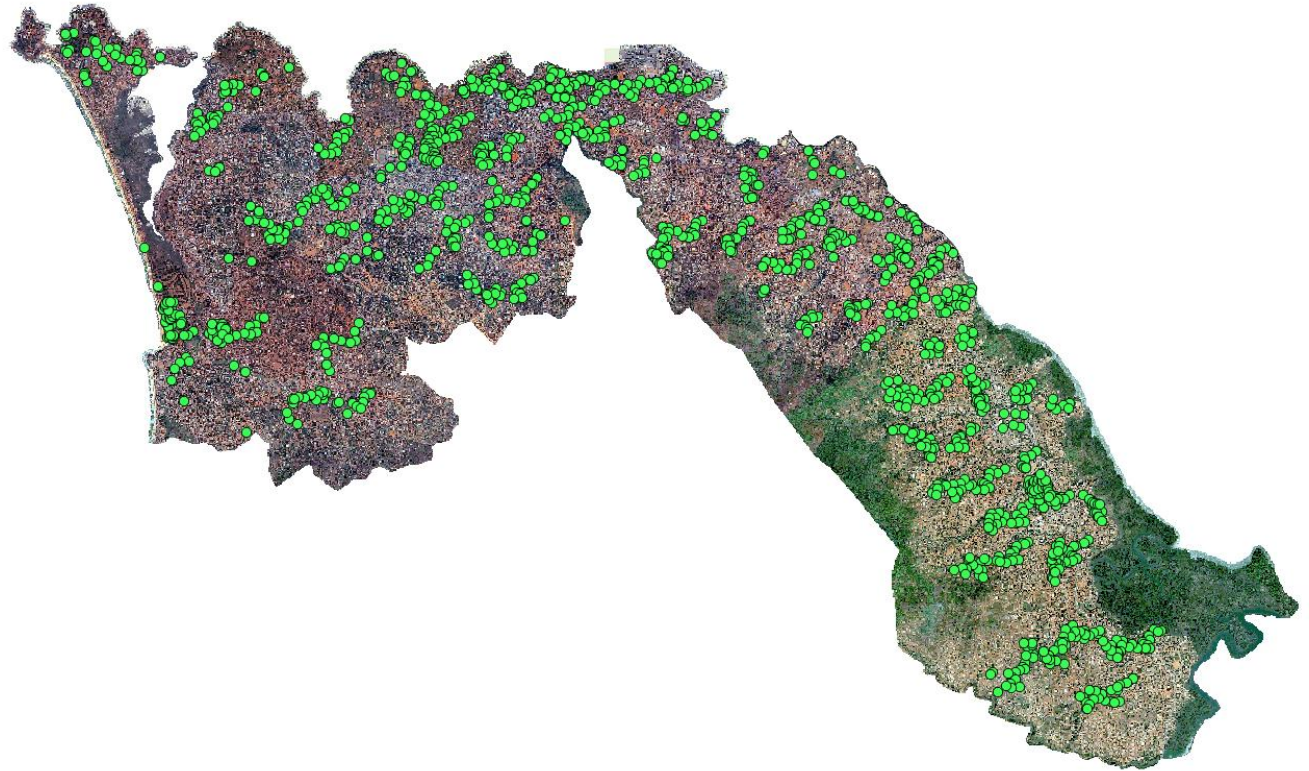
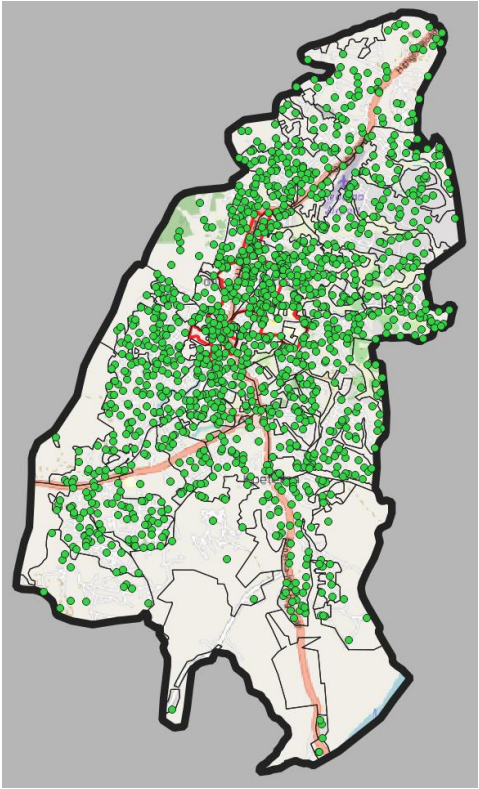


Step 1: Survey design

Working with staff to determine property characteristics to collect.



Step 2: Sample Selection





Step 3: Property characteristics survey

- Kenema Example:
 - Enumerators collected characteristics, took photos, and drew roof outlines in the field
 - 1,414 properties collected in 12 days with 15 temporary, local staff
 - 10 enumerators, 2 backcheckers, 2 supervisors, 1 field coordinator

Step 4:
Rooftop measurements



Step 5: Market Value survey

- Valuers are given photos and characteristics collected by enumerators
- Valuers offer an **upper and lower estimate** for annual rental value
- In Kenema: Valuers are asked to collect current rent amounts

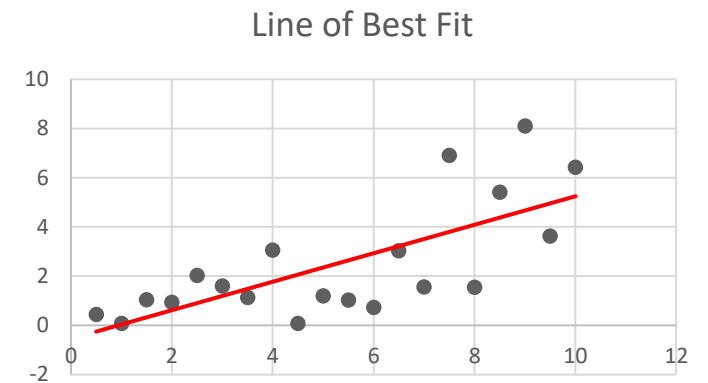
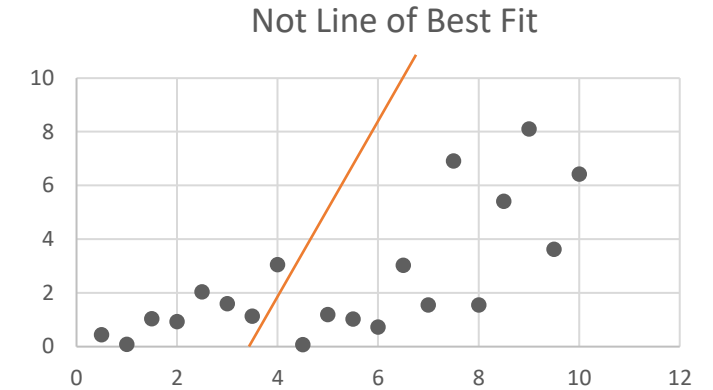


Step 6: Statistical Modelling

Data will be run in a statistical model

Most relevant characteristics will be presented

The characteristics can be used in a points-based tax system



Results example



Features	Result	Adjustment
	Base Value	231,859.13
Surface Area	928 sq ft	30.46
Property Type	Domestic	+ 0 %
Ward	Ward 411	- 35 %
Drainage	Open	+ 0 %
Features	None	+ 0 %
Wall Material	Mud	- 28 %
Roof Condition	Average	+ 0 %
Windows	Wood	- 46 %
Garage	None	+ 0 %
Outbuilding	None	+ 0 %

Rental Value Estimate

Le 1,700,000 (USD 129)

Calculated Estimate

$231,859.13 \times 30.46 \times (1+0\%) \times (1-35\%) \times (1+0\%) \times (1+0\%) \times$
 $(1-28\%) \times (1+0\%) \times (1-46\%) \times (1+0\%) \times (1+0\%)$
 $= 231,859.13 \times 30.46 \times 100\% \times 65\% \times 100\% \times 100\% \times$
 $72\% \times 100\% \times 54\% \times 100\% \times 100\%$

= Le 1,784,817 (USD 135.50)



Results and Lessons Learned



Outcome of the Reform in Freetown

- Successful introduction of fully automated system
- Over 100% (from about 57,000 to over 120,000) increase in FCC property tax register.
- Five-fold increase in revenue potential, driven by large increases in assessment for previously undervalued high-value properties

Average tax payable	Existing system	New system	Average change
1st Quintile	\$14.33	\$4.31	-70%
2nd Quintile	\$15.85	\$9.48	-40%
3rd Quintile	\$16.10	\$17.40	+8%
4th Quintile	\$23.38	\$36.94	+58%
5th Quintile	\$41.64	\$142.25	+242%



Property valuation in Freetown



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Way Forward

- OpenStreetMaps *can* provide useful data
- Google Maps satellite images can be sufficient for building outlines for a pilot
- Sampling at a city-wide level can provide a more representative sample. It does have costs, including more time required to train enumerators on following maps.
- In large cities, you may find certified valuers. In smaller cities, you may find de facto real estate agents.
- ***Pending analysis from Kenema***
 - Hiring local real estate "agents" can be a viable alternative to certified valuers.
 - How much do enumerators' field-drawn polygons differ from those drawn as desktop exercise by staff?
 - How consistent is in-person valuation with desk-valuation?
- ***To explore in future***
 - UAV (Drone) imagery
 - Automated building outline and change detection



Thank you for your attention

Merci de votre attention

PARTNERS