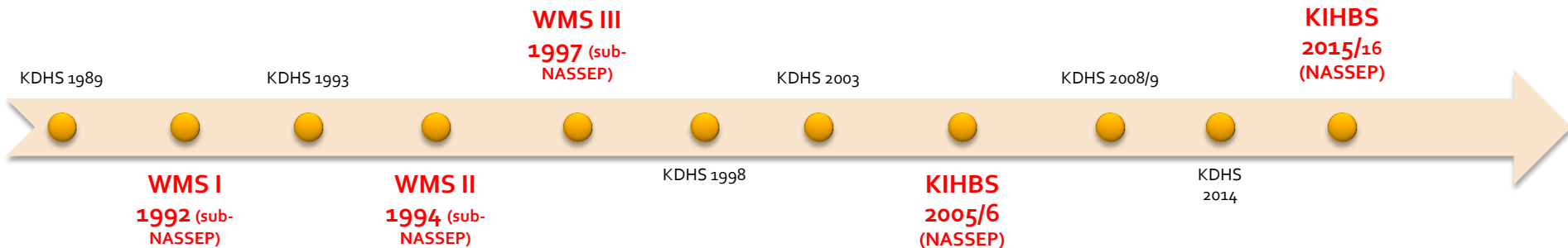# DO THE POOR THINK THEY'RE POOR? WELFARE METRICS, MONITORING AND MAPPING IN COASTAL KENYA

Jacob Katuva: University of Oxford

Lessons from a Decade's Research on Poverty:
Innovation, Engagement and Impact
10th anniversary conference of the
ESRC—DFID Joint Fund for Poverty Alleviation Research
16—18 March 2016, Pretoria, South Africa

Rationale

KDHS 1989   KDHS 1993   **WMS III 1997 (sub-NASSEP)**   KDHS 2003   KDHS 2008/9   **KIHBS 2015/16 (NASSEP)**

WMS I 1992 (sub-NASSEP)   **WMS II 1994 (sub-NASSEP)**   KDHS 1998   **KIHBS 2005/6 (NASSEP)**   KDHS 2014
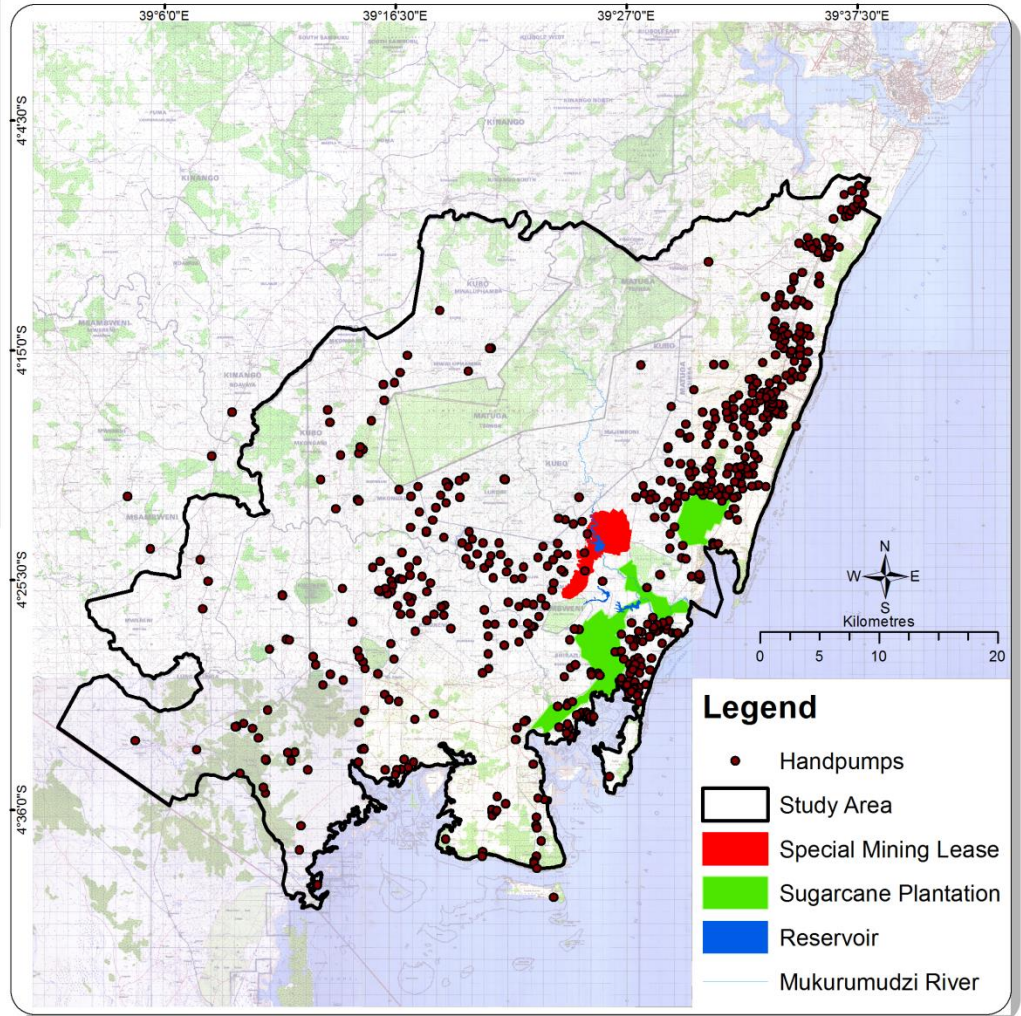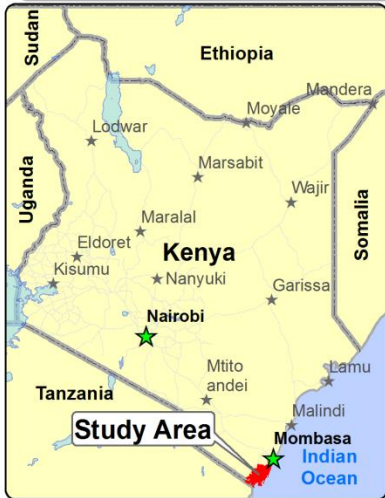
- Infrequent national surveys and a dominant income/expenditure poverty analysis has contributed to;
  - Weaknesses in tracking welfare changes
  - Uncertain links between long term (slow welfare changes) and short term (fast welfare changes) transitions
  - Difficulty in accounting for the impacts of environmental, economic, political and insecurity shocks on welfare
- Subjective welfare assessment is rarely assessed and compared in these surveys

Ravallion 1992; Ravallion 2011; Olsson et al. 2014, Beegle et al. 2016, *Ferreira & Lugo, 2012, Alkire & Santos, 2011, Filmer & Pritchett, 2001;* Kristjanson et al. 2010; IMF & World Bank 2014

Research Questions

1) Is a 'fast' welfare index internally coherent and consistent, and comparable to a combined (slow and fast) welfare index?

2) How do fast and combined welfare indices coincide with subjective welfare assessments?

3) Do fast and combined welfare indices evaluate temporal and spatial welfare dynamics consistently?

Rutstein & Johnson 2004; Collier & Dollar 2002; World Bank 2013; Steptoe et al. 2014; ; IMF & World Bank 2014; Ferreira & Lugo, 2012; Kakwani & Silber, 2008; Ravallion, 2011
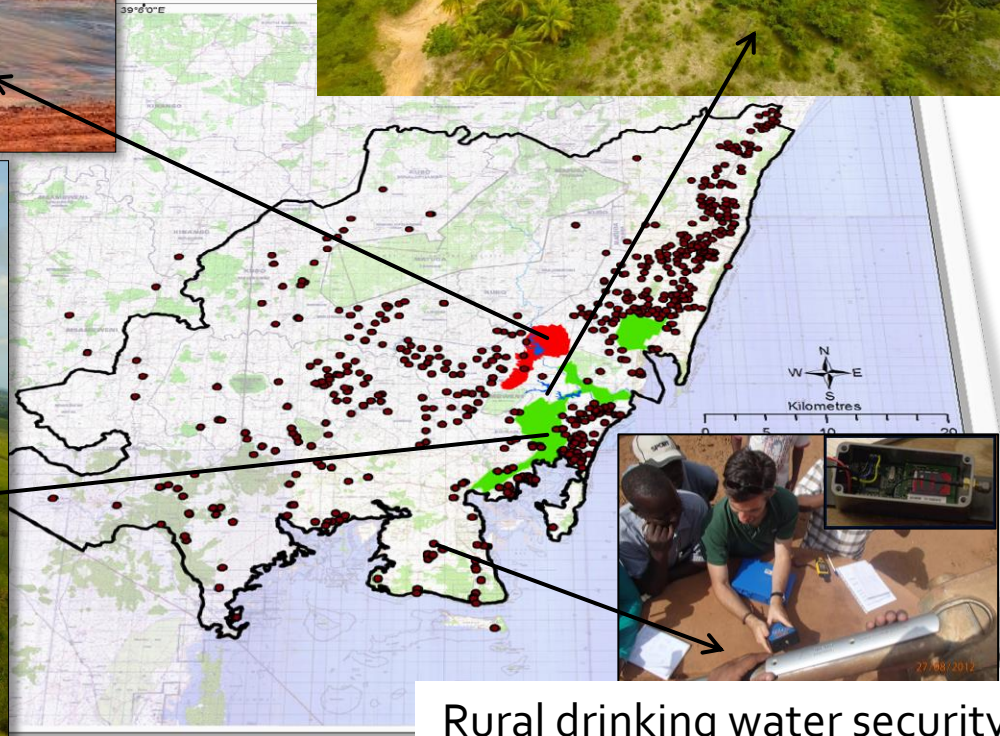
Study Area

Why Kwale County?

MINING OF HEAVY MINERAL SANDS

Surface Storage

SUGARCANE PLANTATIONS

Rural drinking water security

Methodology: The survey

Training Field Teams

Communities and Water Usage

Household sampling and Survey

Household composition; Dwelling characteristics; Asset Ownership; Sanitation and health; Drinking water. [29 combined indicators vs 8 Fast Indicators]

# Provisional Results (Wealth groups by Welfare Indices)

Percentage of households in different wealth groups by welfare indices, year 2014.

Wealth Group; (n = 3,229)	Combined Welfare Index A (29 variables)	Fast Welfare Index C (8 variables)
Bottom 20%	10%	16%
Second	27%	28%
Middle	30%	22%
Fourth	23%	18%
Top 20%	10%	15%
Spearman Rank Correlation Coefficient (Households)		0.908**

Provisional Results (Consistency between Welfare Indices)

Degree of Variation Between Index A & C per Variable by Wealth Group

◆ Bottom 20%   ■ Second   ▲ Middle   ✕ Fourth   ✳ Top 20%
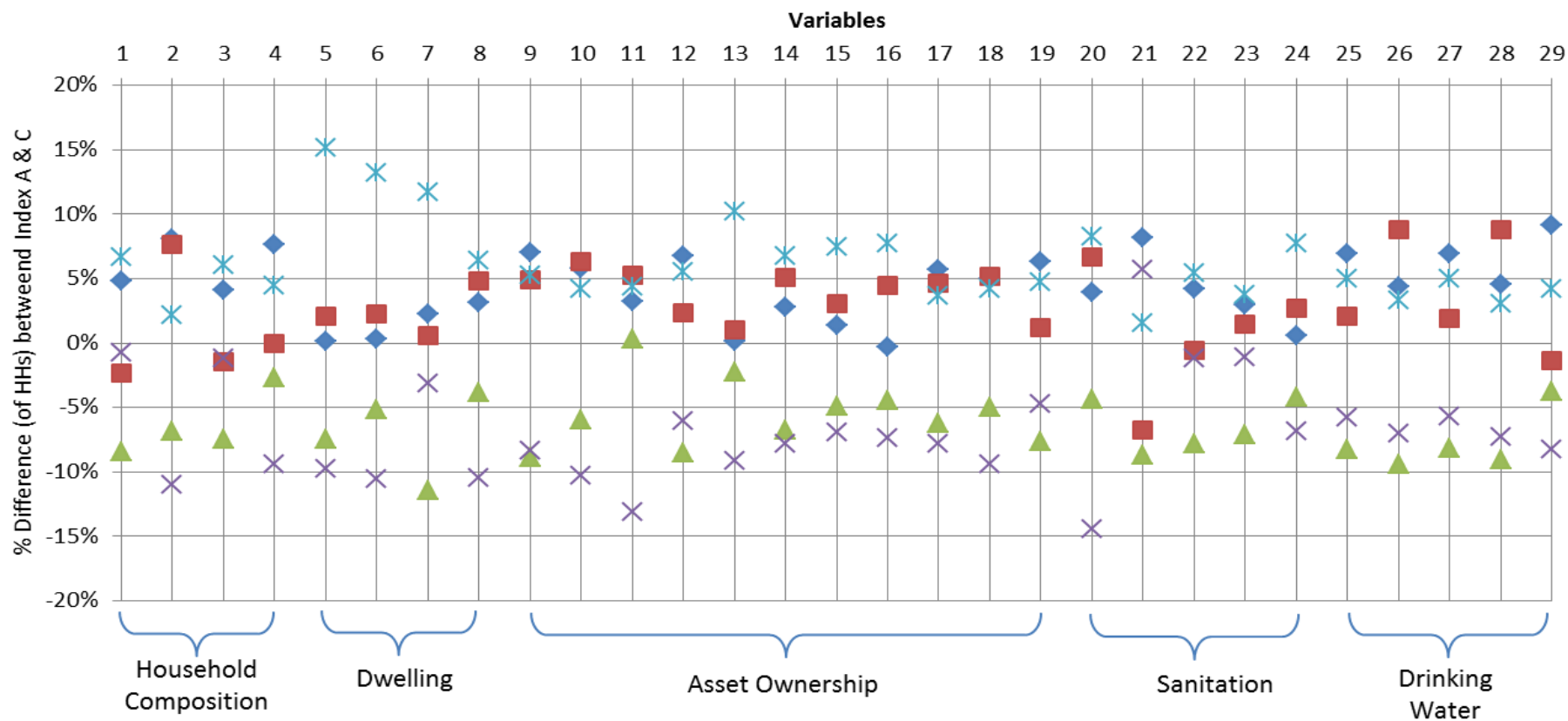
Provisional Results (Stability of HHs)

		Fast Welfare Index C (8 variables)
Coastal	Households with falling welfare	21%
	Status Quo	**62%**
	Households with rising welfare	17%
Inland	Households with falling welfare	29%
	Status Quo	**59%**
	Households with rising welfare	11%
Ukunda Town	Households with falling welfare	18%
	Status Quo	**64%**
	Households with rising welfare	18%

Relative Welfare Changes due to Welfare Index C (by Locality) Year 2014: Reference is Combined Welfare Index A (29 variables)

Provisional Results (Subjective Welfare vs Welfare Indices on Wealth Group)

	Wealth group, n=3,229									
	Combined Welfare Index A - 29 variables					Fast Welfare Index C 8 variables				
	Bottom 20%	Second	Middle	Fourth	Top 20%	Bottom 20%	Second	Middle	Fourth	Top 20%
Average	2%	15%	**28%**	**34%**	**21%**	5%	19%	**22%**	**25%**	**28%**
Not well off	**15%**	**36%**	**31%**	15%	3%	**24%**	**35%**	**23%**	13%	6%

Overall Cross Tabulation of Subjective Welfare versus Welfare Indices

Provisional Results (Subjective Welfare vs Welfare Indices on Welfare Change)
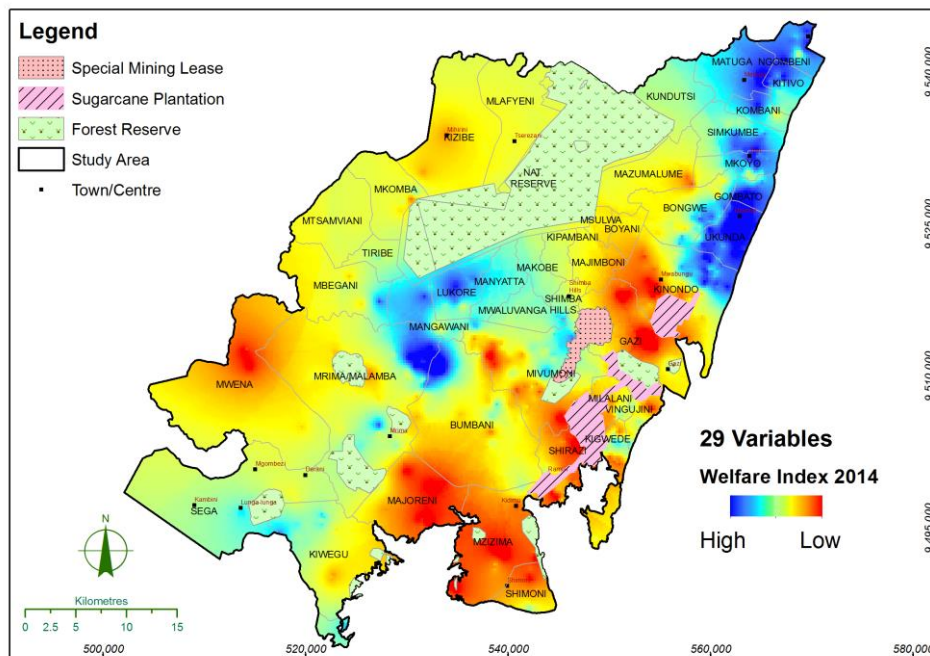
Cramer's V coefficient on Positive/Negative Change	
Welfare Indices	Subjective Welfare, n=1,275
Combined Welfare Index A **29 variables**	0.368**
Fast Welfare Index C **8 variables**	0.420**

*** Statistically significant at p<0.001. Note: V=phi for a 2 by 2 matrix*
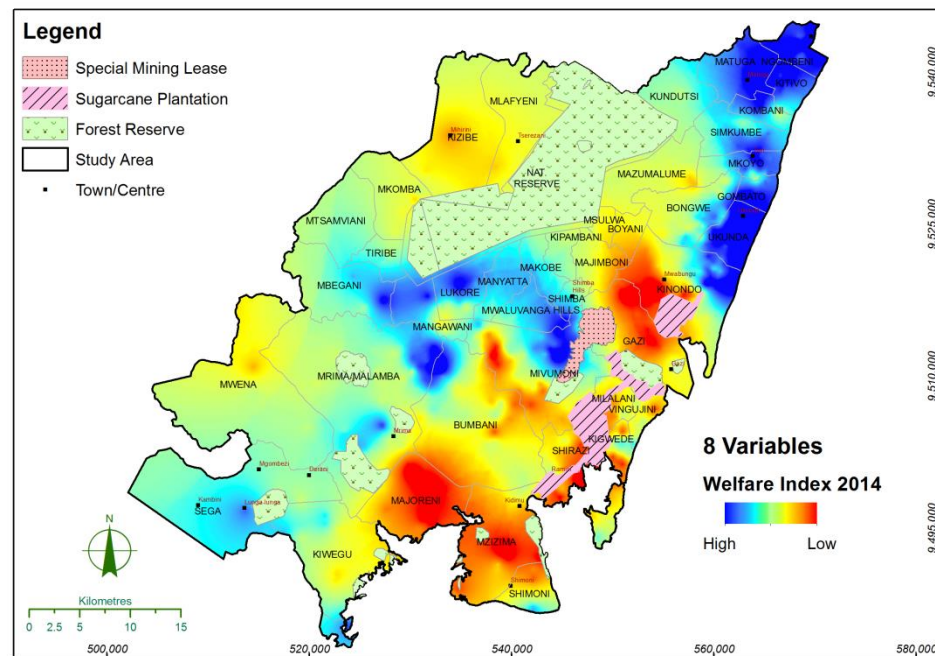
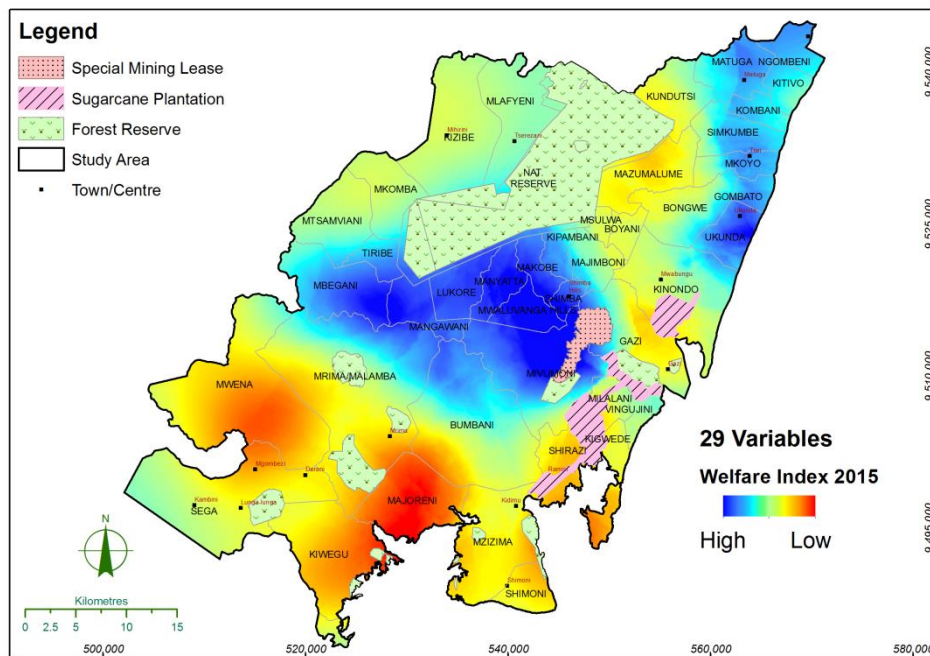# Provisional Results (Mapping Welfare) Year 2014

Combined Welfare Index

Fast Welfare Index
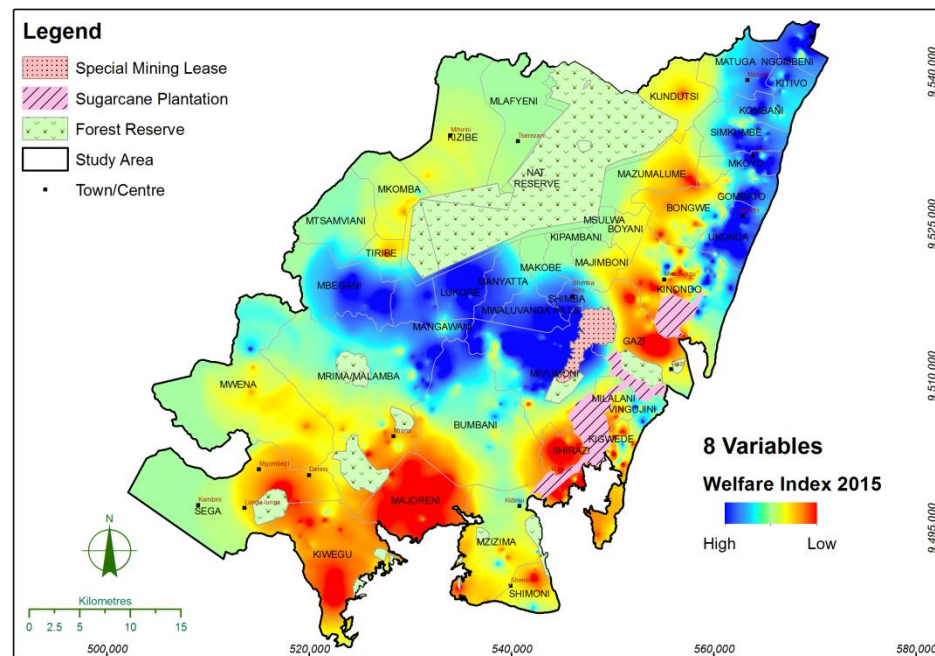
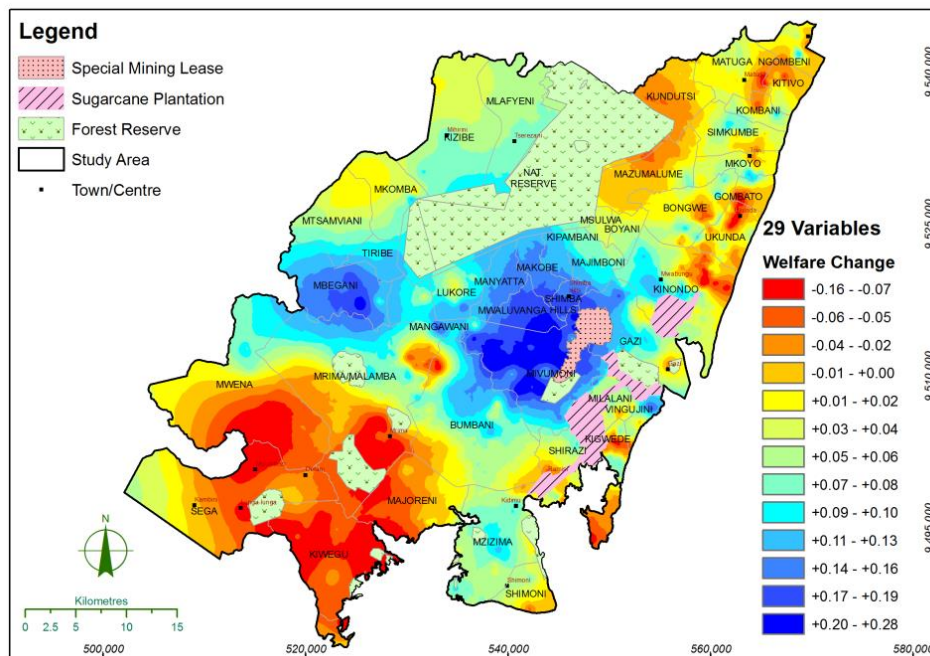# Provisional Results (Mapping Welfare) Year 2015
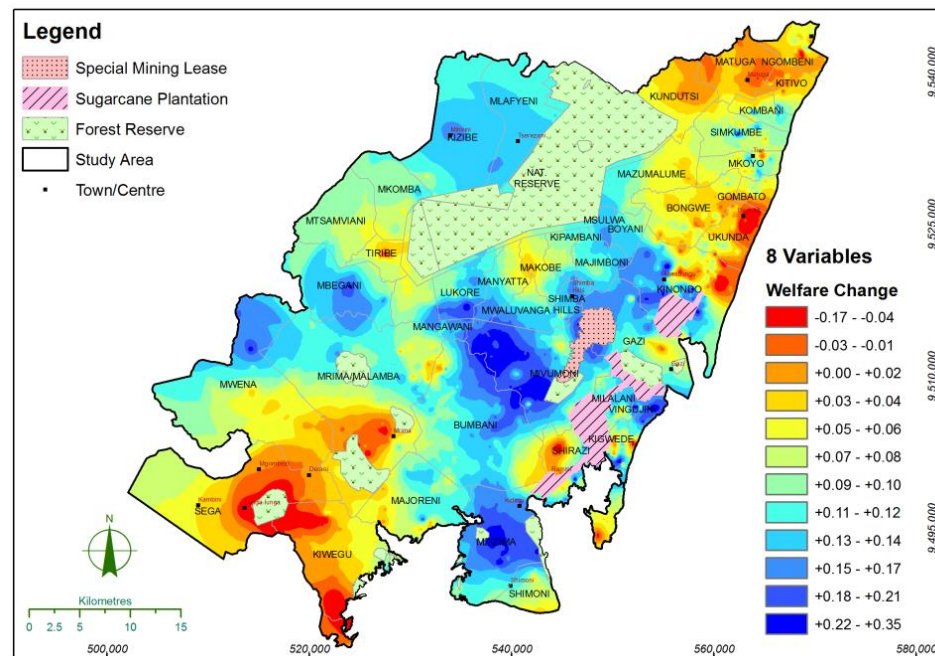
Combined Welfare Index

Fast Welfare Index

Provisional Results
Welfare Change over 1 Year

Combined Welfare Index

Fast Welfare Index

Conclusion

- Mapping welfare transitions using different methodological approaches provides decision-makers with new and visual evidence to illustrate dynamic processes and help understand how they affect different groups over space and time.

  - For example, how do different communities benefit from proximity to a major mine, and how are benefits distributed?

  - Do terrorism events affect the poor more than the non-poor in the short and long term?

- 'Faster' time-step monitoring of welfare to support new County Governments in Kenya shape policy in political windows rather than lagged and irregular traditional survey rounds.

- Rapid and low-cost SMS surveys could be used in future to track future climate or economic shocks directly against welfare changes in terms relevant for policy action.