LSE Research **Online**

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Did you sleep here last night? The impact of the household definition in sample surveys: a Tanzanian case study

Conference Item [eg. keynote lecture, etc.]

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The impact of the household definition in sample surveys: a Tanzanian case study

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Household definitions

- Usually based on combinations of

    - Eat

    - Sleep

    - Sharing of economic livelihoods

- E.g.Tanzania DHS definition:*"a household is defined as a person or group of persons, related or unrelated who live together and share a common source of food"*

Do household definitions matter?

- More variables being added in 'household section'

    - Way of measuring wealth / poverty / access to facilities which influence health

    - New level of analysis / explanation

- More use (researchers & policy makers) made of publicly available data

- Increasing use of 'indicators' based on household data (e.g. MDGs, asset indicators)

- Increasing importance of poverty mapping which uses household level data

BUT Less methodological work done

Aims and objectives

Objective

- *To investigate the impact of different household definitions in household surveys for key socio-demographic indicators.*

Research Questions

1. In what ways, and to what extent, do household surveys misrepresent peoples' living arrangements?

2. How are estimates of socio-demographic indicators (eg: household size, sex ratio, dependency ratio, wealth assets) from household surveys affected by the definition of the household?

3. How might analyses and collection of data from household surveys better represent the realities of peoples' living arrangements? (alas how can we exploit the current data in order to identify household realities)

Data and Methods

1. **Primary in-depth (n=52) case study interviews with Tanzanians in three different settings.**

   - Mix of cognitive interviewing and in depth Household grid sheet-flexible data collection-573 individuals

     1. Longido in prevalently Maasai area (9 'households')

     2. Urban Dar es Salaam (23 'households')

     3. South Tanzania Rufiji (20 'households')
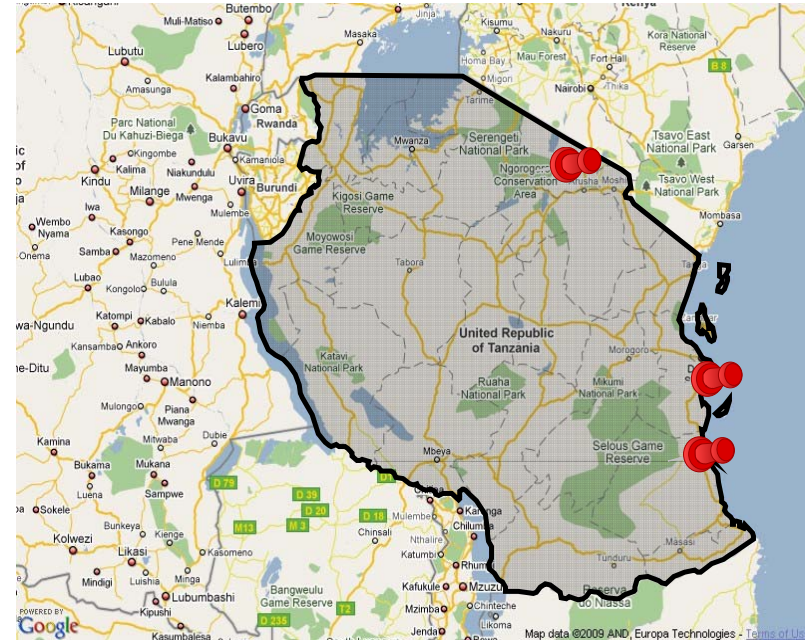
2. **2004 Tanzanian Demographic and Health Survey (DHS) (n=1124 households)- Household and individual (4932) level recodes**
   - Arusha, Pwani, Dar es Salaam
     - Sensitivity analysis of key socio-demographic indicators based on fieldwork results

Summary of fieldwork experience

- Complex cultural traditions around eating meals and sleeping arrangements
- **Maasai** have interdependent groups that are split up in surveys but considered by themselves to be one economic unit of production and consumption
- **Dar es Salaam urban**: very high mobility between households of children and young people
- **Rufiji** Straightforward livelihoods with extremely complex ways of living: subsistence economy with several members contributing to household finances
  - No local word for a household – which suggests not an easy concept

Modelling definition differences

- 'Translated' the household grid interviews into dataset
- We reconstructed households considering whether the person:
  - Would make it into DHS
  - Would make it into Census
- Created demographic and socio-economic indicators often used in development assessments such as
  - Dependency ratio
  - Sex ratio
  - % female headed household
  - Household size
  - Head of Household education level
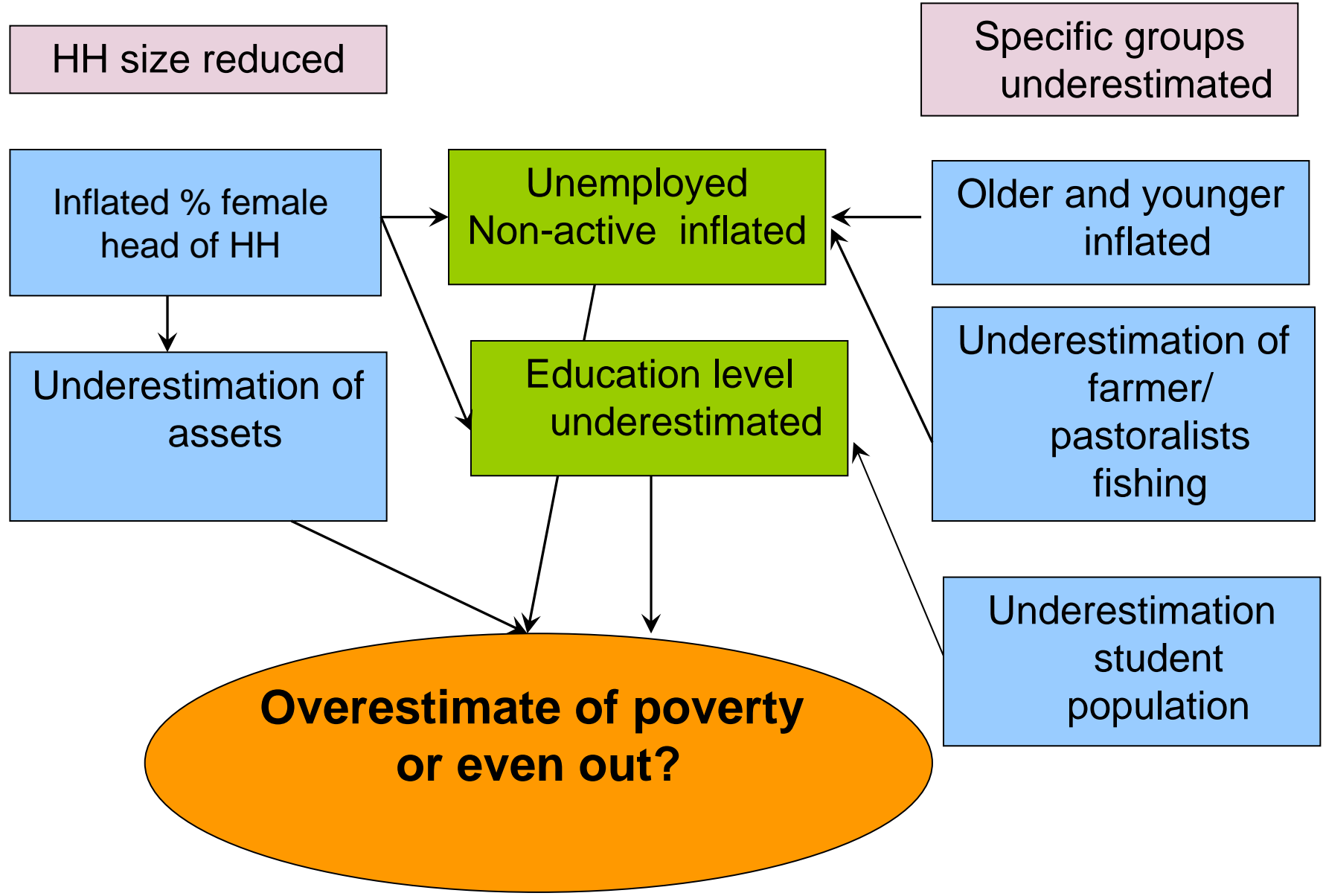 - Wealth asset index

Fieldwork scenarios:

	Number of households	Number of individuals	mean size	Percentage female Headed Household	Sex ratio	HHH mean years education	Dependency ratio
Fieldwork	52	573	11.23	26%	0.82	6.67	1.03
DHS definition	104	490	5.86	32.4%	0.79	5.54	1.13

Impact on asset index:
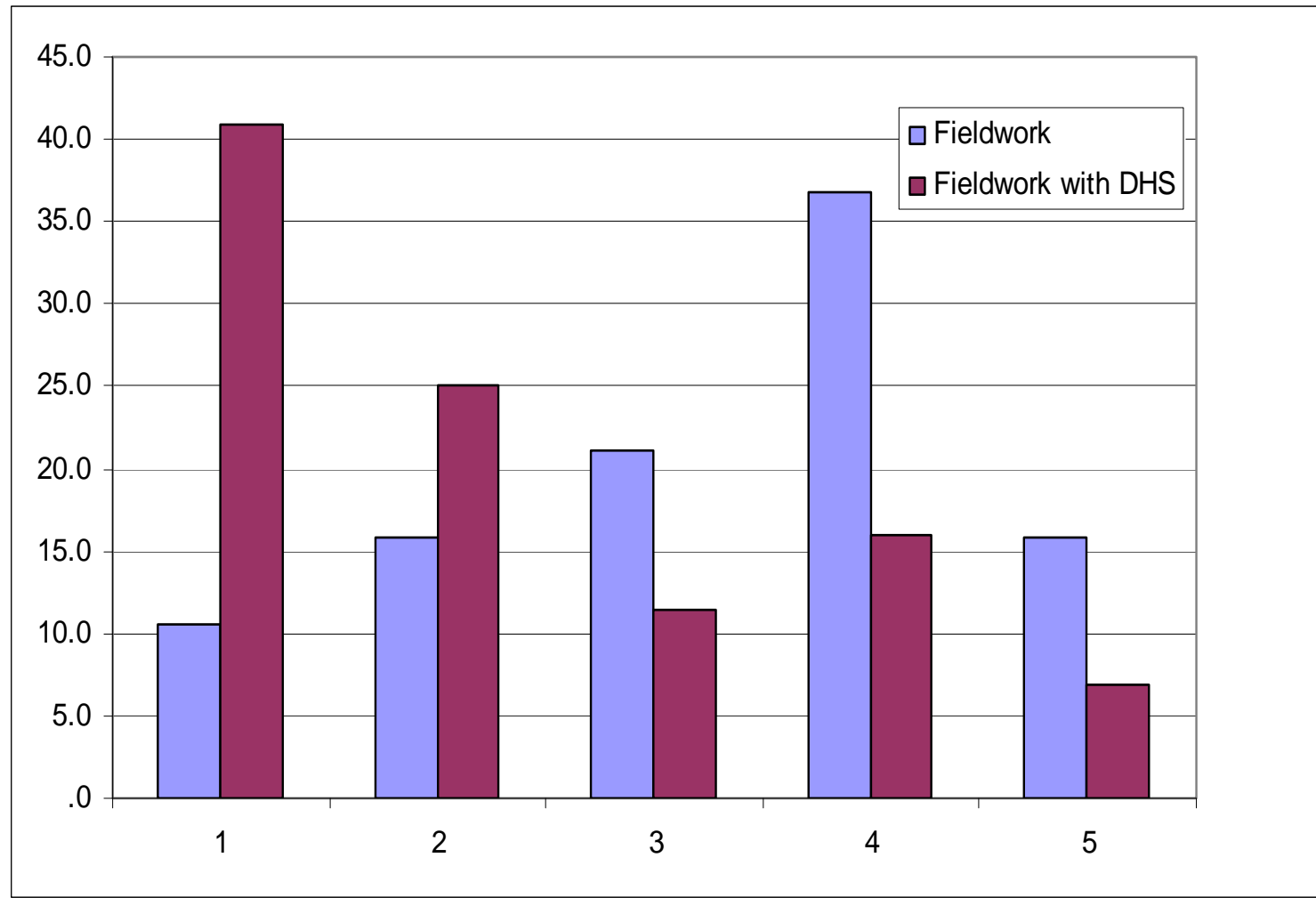
Impact definition on household:

HH size reduced

Specific groups underestimated

Inflated % female head of HH

Unemployed Non-active inflated

Older and younger inflated

Underestimation of assets

Education level underestimated

Underestimation of farmer/ pastoralists fishing

Underestimation student population

Overestimate of poverty or even out?

2. DHS data: Thinking creatively

- Results of fieldwork used for input parameters to test range of scenarios
- Tested sensitivity with sensitivity index
- Analysed specific Socio-demographic indicators:
  - Sex ratio
  - Dependency ratio
  - Head of HH education level
  - Female headed HH
  - % population in poorest quintile

- Objective twofold: understand range of bias and test which outcomes most sensitive to variations

Sensitivity analysis

Indicator	DHS Value	Range	Sensitivity Index
Sex ratio	0.89	0.78-0.99	0.20
Dependency ratio	0.88	0.61-1.28	0.52
% fem headed HH	17.3	8.9-24.8	0.64
HH Head level education	5.93	5.77-6.11	0.06
% poorest quintile (Poly distribution)	14%	11-19	0.35

Impact strongest for female HH household

Light at the end of the tunnel?

Ways of dealing with 'fuzzy' household at the collection stage

- Collect data in more sensible way that allows better configurations
  - include information on who slept there the night before, who ate and possibly on contributions to the household economy
  - Relationship to hh head
  - Line numbers and relationship to each other
- Where possible and in particular for specialized surveys avoid assumptions of crisp boundaries – allow multiple membership of HHs and find ways to record it (e.g: Hosegood &Timaeus).

Ways of dealing with 'fuzzy' household at the <u>*analysis*</u> *stage*

- Education of users: more background material on the issues surrounding the impact of the household definition
  - Careful interpretation of the results
  - Non-technical language to educate policy makers on the interpretation of the data
- Methodological material available to users
  - Warnings from users' manuals
  - Make better use of the household recode of the DHS survey when analysing individual files

Discussion and few thoughts

- Surveys and household members have different ideas on what their household is
    - HH size reduced smaller
    - Men of working underestimated
    - Livelihoods misrepresented
- Household level information more affected by definition than individual one
    - Age and sex crucial parameters affected

NO NEED TO CHANGE DEFINITION

- Need for more awareness on the issues
    - Flexible thinking/analysis
- Need for more methodological developments
    - Flexible collection

'The household is central to the development process. Not only is the household a production unit but it is also a consumption, social and demographic unit' **Kenya: Ministry of Planning and National Development 2003, p59**