

# Applying the Multidimensional Poverty Index in Africa

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# Introduction

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- Data used for MPI calculations to get MPI Poverty.
- Advantages of the data available.
- Disadvantages of the data available.
- Data used for Money Metric Poverty Measurements.
- Data used in Africa for National MPI.
- Data used for the Global MPI.
- Advantages and disadvantages.
- Challenges in the available data.





# DATA SOURCES USED FOR MPI

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- Most MPI data is sources from Household Surveys such as:
  - (a) Living Standard Measurement Surveys;
  - (b) Multiple Indicator Cluster Surveys (MICS);
  - (c) Households Income and Expenditure Surveys; and
  - (d) Multi Topic Household Surveys.
- Some countries use Census Data to calculate MPI

# DESIGN OF DATA COLLECTION TOOLS

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- Most of these Surveys are design to collected data to be used for the calculation of Money Metric Poverty;
- Most of the indicators are addressed before hand;
- Money metric Surveys has evolved over the years since 1970 and became popular in the 1980s; and
- Enables National Poverty Calculations and World Banks Purchasing Power parity Global Poverty calculations.



# DATA SOURCES OF MPI Data

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- Multidimensional poverty is measured using *micro* data.
- By *micro* data we mean the unit-level data containing responses that each unit of analysis (such as person or household) provided.
- Major Sources of Micro data.
  - Census.
  - Administrative data.
  - Household Surveys.
  - Households Surveys: Metadata.





# CENSUS DATA FOR MPI

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- Advantages of Census data are:
  - (a) Increase confidence interval. Conducting a census often results in enough respondents to have a high degree of statistical confidence in the survey results. (b) Data for sub-populations may be available, assuming satisfactory response rates are achieved.
- Disadvantages of censuses data are that (a) they have low frequency, (b) they offer information on a small set of indicators, and (c) micro data may not be available to researchers.

# ADMINISTRATIVE DATA FOR MPI

## ➤ **Advantages**

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- (a) Makes possible to analyse at local, state and national level;
- (b) Contains detailed, accurate measures;
- (c) Large and covers samples of individuals and time period; and
- (d) Covers individuals who would not normally respond to survey.

## ➤ **Disadvantages**

- (a) the information collected in administrative records is limited and may not match the research purpose,
- (b) any changes in data collection procedures or definitions may prevent comparability over time, (c) serious data quality issues may compromise accuracy,
- (d) metadata is usually not available, (e) access to administrative (micro) data varies by country, and (f) linking data sources is rarely straightforward.
- **NOTE:** No MPI uses administrative data.





# HOUSEHOLD SURVEY DATA FOR MPI

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## ➤ **Advantages**

- Reasonably accurate
- Cheap to collect

## ➤ **Disadvantages**

- household surveys typically exclude certain groups such as nomadic people, recent or illegal migrants or refugees, and the homeless—as well as institutionalized groups such as prisoners, those hospitalized or in nursing homes, the military, and members of religious orders.
- May also overlook the elderly within households.
- Some excluded groups may be particularly marginalized thus need to be considered in poverty measures.



# DATA TIME AND NATURE OF DATA

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- **Frequency**, poverty data continues to lag behind most other economic information. The lack of frequent data makes it impossible to inform policies responding to the impact of certain events such as financial crises, epidemics and natural disasters on the poor.
- **Nature of the indicators** that are collected is another area of potential improvement.
- **Complementarity** are required between censuses, administrative records, household surveys, and other information such as from satellites and cell phones, in order to advance towards an integrated programme of data collection and compilation. Merging GIS data on environmental conditions with household surveys, for example, greatly strengthens poverty measurement and the monitoring and impact evaluation of sustainable poverty reduction programmes.





# ISSUES IN INDICATOR DESIGN

- **Unit-level Indicator Accuracy : unit of identification** refers to the entity who is identified as poor or non-poor, (determination of the poverty status)—usually the individual or the household.
- **The Unit of Identification and Applicable Population**
  - (a) Universal measures
  - (b) Group-specific measures
  - (c) Combined measures
- **Assessing Combined Measures**
- **Handling Missing Values**
- **Relationships among Indicators**
- **Cross-Tabulations**





# AFRICAN MPI DATA SOURCE

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- Collects data from different sources.
- Mainly uses data collected for other surveys such as DHS, Census, LSMS or other Household surveys.
- Mainly similar to Global MPI but has customized indicator

# AFRICAN MPI DIMENSIONS AND IND, METHODOLOGY

CountryS	Year	Data Source	Dimension and Indicators	Methodology
Angola	2020	IMIS	4 Dimensions & 12 Indicators	Alkire and Foster
Ghana	2020	LSS	3 Dimensions & 12 Indicators	Alkire and Foster
Seychelles	2019	LFS	4 Dimensions & 12 Indicators	Alkire and Foster
Sierra Leone	2019	Census	5 Dimensions & 14 Indicators	Alkire and Foster
South Africa	2014	Cenus	4 Dimensions & 11 Indicators	Alkire and Foster
Nigeria	2018	Human Dev, Survey	4 Dimensions & 11 Indicators	Alkire and Foster



# UNECAMPI DIMENSIONS, INDICATORS AND CUT OF POINT

Dimensions of Poverty	Indicator	Deprivation Cut-off	Indicator Weight	Dimension Weight
Health	Nutrition	An adult under 70 years of age or a child is undernourished.	1/8	25%
	Child Mortality	Any child has died in the family in the five-year period preceding the survey.	1/8	
Education	Years of schooling	No household member aged 10 years or older has completed six years of schooling.	1/8	25%
	School attendance	Any school-aged child is not attending school up to the age at which he/she would complete class 8.	1/8	
Standard of Living	Cooking Fuel	The household cooks with dung, wood, charcoal or coal.	1/24	25%
	Sanitation	The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households.	1/24	
	Drinking Water	The household does not have access to improved drinking water (according to SDG guidelines) or safe drinking water is at least a 30-minute walk from home, round trip.	1/24	
	Electricity	The household has no electricity.	1/24	
	Housing	Housing materials for at least one of roof, walls and floor are inadequate: the floor is of natural materials and/or the roof and/or walls are of natural or rudimentary materials.	1/24	
	Assets	The household does not own more than one of these assets: radio, TV, telephone, computer, animal cart, bicycle, motorbike or refrigerator, and does not own a car or truck.	1/24	
Economic Activity	Unemployment	If all adults (aged 15 to 64) in the household are unemployed	1/4	25%





# UNECAMP Vs GLOBAL MPI

<b>African MPI (UNECAMPI)</b>	<b>Global MPI</b>
4 Dimension	3 Dimensions
11 Indicators	10 indicators
Poverty Cut off is at 26%	Poverty Cut off is at 33.33%
Data Sources: DHS	Data Sources: DHS, MICS



# DATA CHALLENGES IN GLOBAL MPI AND UNECAMPI

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- Ideally supposed to calculate MPI using the same data variable for comparison:
    - Nutritional data differ from country to country as some countries do collect nutrition for Children only and or Women or both.
    - DHS collect Nutritional data from Children (u5)
    - MICS collect Nutritional data from women (below 49 yrs) and children.
    - Information on women is restricted to women who are in the reproductive age group (15 – 49) while for men is that between 15 – 59.
    - Both Surveys have rich source of data for MPI despite the challenges.



# CONCLUSION

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- African Countries have a lot of data collected for the Money Metric Poverty Calculation over the year
- There is need to make the DHS and MICS collect more data and add employment variables to data collected so that it can be used to calculate economic activities by member countries.



# THE END

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- Thank you for paying attention