

EAST AFRICAN COMMUNITY



2024 EAC MULTIDIMENSIONAL POVERTY INDEX (EAC MPI)

BASELINE REPORT

NOVEMBER 2024

EAC SECRETARIAT
Arusha, Tanzania
February, 2025

The East African Community (EAC) is a regional inter-governmental organisation of the following countries:

1. Republic of Burundi
2. Democratic Republic of Congo
3. Federal Republic of Somali
4. Republic of Kenya
5. Republic of Rwanda
6. Republic of South Sudan
7. Republic of Uganda
8. United Republic of Tanzania



Acknowledgement

The 2024 Baseline EAC Multidimensional Poverty Report provides a detailed exposition of the various dimensions of people's living standards and complements existing monetary poverty estimates. The main objective of the EAC MPI is to monitor key simultaneous disadvantages that affect poor people multidimensionally within the EAC region. The publication is based on micro datasets from national household surveys conducted by EAC Partner States. The development of the 2024 Baseline EAC Multidimensional Poverty Index (EAC MPI) was a participatory and collaborative effort with support and contributions from subject matter specialists from the eight EAC Partner States, the EAC Secretariat and the Oxford Poverty and Human Development Initiative (OPHI).

The technical team (analysis and authorship) composed of: Modeste Ndayisenga and Nicolas Nikoyagize (Institut National de la Statistique du Burundi, (INSBU), Burundi); Vincent Ssenono and Stephen Kwizera Baryahirwa (Uganda Bureau of Statistics (UBOS), Uganda); Paul Kemboi Samoei and Silas Mutua Mulwa (Kenya National Bureau of Statistics (KNBS), Kenya); Meku Sylvia Severin, Stephano George Cosmas (National Bureau of Statistics Tanzania (NBS) and Ms. Rahma Vuai Office of Chief Government Statistician (OCGS) Zanzibar, United Republic of Tanzania); Francois Abalikumwe (National Institute of Statistics (NISR), Rwanda); Denis Lomundu and John Opiti (National Bureau of Statistics (NBS), South Sudan); Mbombo Pape Mweli David and Makanga Mambeta Gradi (Institut National de la Statistique (INS), DRC); Said Abdilaahi Abdi (Somalia National Bureau of Statistics (SNBS), Somalia) under the technical guidance and coordination of Gemma Ahaibwe (Poverty Statistics Expert, EAC Secretariat). The EAC Secretariat sincerely thanks everyone involved for their commitment and dedication.

The production of the EAC MPI Baseline Report was made possible with financial support from the World Bank under the Project "Eastern Africa Regional Statistics Program for Results (EARSForR). EAC acknowledges technical assistance and peer review support from the OPHI team led by Ms. Corinne Mitchell, Ms. Lhachi Selden, and Dr. Juliana Milovich Finkelstein.

Acronyms

AF	Alkire Foster
CSS	Community Statistical System
EAC	East African Community
EAC MPI	East African Community Multidimensional Poverty Index
EICV	Integrated Household Living Conditions Survey
EICVMB	Integrated Survey on Household Conditions in Burundi
FGT	Foster- Greer-Thorbecke
HBS	Household Budget Survey
HFS	High Frequency Survey
ICT	Information, Communication and Technology
JMP	Joint Monitoring Program
MODA	Multiple Overlapping Deprivation Analysis
MPI	Multidimensional Poverty Index
NMPI	National Multidimensional Poverty Index
OPHI	Oxford Poverty and Human Development Initiative
RSDP	Regional Strategy for Development of Statistics
SDGs	Sustainable Development Goals
SIHBS	Somalia Integrated Household Budget Survey
UNHS	Uganda National Household Survey
URT	United Republic of Tanzania

Executive Summary

Non-monetary poverty measurements have received considerable attention in recent years. This is partly in view of the unanimous consensus that the monetary approach to poverty measurement that has traditionally been used in the region is narrowly focused on consumption expenditure or household income. The baseline EAC MPI report marks EAC's commitment to adopting a multidimensional approach to measuring poverty as a complementary measure to the conventional consumption expenditure poverty measure. The overarching objective for this report is to estimate the baseline EAC Multidimensional Poverty Index (MPI), which will be a benchmark for tracking progress in multiple deprivations that East Africans face in line with Sustainable Development Goal one (SDG 1) one and various EAC Vision 2050 targets.

The Alkire Foster (AF) method was used in the computation of the EAC-MPI. The MPI combines two key pieces of information to measure multidimensional poverty: the proportion of people (within a given population) who experience multiple deprivations (i.e. the incidence of poverty) and the intensity of their deprivation—the average proportion of (weighted) deprivations they experience. Therefore, the MPI is the product of incidence and intensity of poverty, indicating that it is sensitive to both prevalence (and incidence of poverty) and its breadth or intensity. The MPI ranges from 0 to 1, with zero reflecting zero poverty and 1 universal poverty and deprivation.

The structure of the EAC MPI consists of four equally weighted dimensions represented by a total of twelve (12) indicators as follows:

1. Education	School attendance Years of schooling
2. Health	Access to health services Health insurance
3. Basic Services	Access to improved drinking water Access to improved toilet Clean source of energy for lighting Cooking fuel
4. Living standards & Employment	Housing materials Overcrowding Asset ownership Unemployment

Deprivations in these indicators were estimated using data from the latest nationally representative Household Budget Surveys from EAC Partner States. The EAC MPI uses the household as the unit of identification, implying that it uses individual and household deprivations to construct a poverty profile for each household (i.e. it identifies a household and all its members as deprived). However, the unit of analysis is an individual, implying that results are presented for the entire population. In the EAC MPI, a person is identified as multidimensionally poor or MPI poor if they are deprived in at least 38% of the weighted MPI indicators.

The key findings of the EAC MPI are highlighted below:

- I. **Prevalence of multidimensional poverty: Incidence** of multidimensional poverty remains prevalent, affecting 60 percent of the EAC population. Rural areas remain the most affected and experience the highest levels of deprivation. **The MPI scores** (i.e. the value that captures the incidence and intensity of poverty) are 0.126 in Zanzibar-URT, 0.209 in Rwanda, 0.277 in Mainland-URT, 0.318 in Uganda, 0.328 in Burundi, 0.425 in Somalia and 0.475 in DRC, reflecting disparities across Partner States. A higher value of MPI indicates a higher level of poverty.
- II. **Intensity of multidimensional poverty:** The extent – or intensity – of poverty is measured through the percentage of deprivations that the multidimensional poor they are experiencing. While the headcount poverty varies markedly among Partner States, the intensity of poverty among the poor is generally high and similar across the poor in EAC countries. In all EAC countries, the intensity of poverty among the poor was above 50%. This implies that the poor experience deprivation in more than two full dimensions out of the four dimensions.
- III. **Main drivers of multidimensional poverty:** Multidimensional poverty is largely driven by the basic services dimension in all Partner States (29% to 36.6% of observed poverty) except Somalia where the highest driver is the Education dimension (30.1%) and Zanzibar where the leading contributor is the health dimension. At indicator level, the highest contributors to multidimensional poverty are health insurance, cooking fuel, years of schooling, housing and sanitation.
- IV. **Data challenges:** The development and estimation of the EAC MPI was somewhat constrained by a number of factors related to data availability and their temporal and cross-sectional comparability. Certain indicators could not be covered as they were not collected and compiled systematically and comprehensively in surveys across the countries. Moreover, some of the surveys used in the analysis are relatively old.

Based on the above findings, the EAC region needs interventions at various levels. These include:

- I. Promoting use of clean energy for cooking and lighting;
- II. Improvement in access to basic services such as improved drinking water and improved sanitation facilities;
- III. Establishment of national health insurance schemes in countries where they do not exist; and
- IV. Strengthening data collection for evidence-based poverty reduction policies.

Table of Contents

1. Introduction	7
1.1. Background	7
1.2. Motivation for a regional multidimensional poverty measure	7
1.3. Purpose of EAC-MPI	8
2. Methodology	9
2.1. Alkire Foster Method	9
2.2. Measurement Design	10
2.2.1. Unit of identification and analysis	10
2.2.2. Dimensions, indicators and weights	10
2.2.3. Weights	16
2.2.4. Poverty cut off	16
2.3. Data sources	16
3. Key Findings on Multidimensional Poverty in the EAC Region	18
3.1. The extent of poverty in the EAC region	18
3.1.1. Multidimensional poverty index, Incidence and Intensity of poverty	18
3.1.2. Multidimensional Poverty in South Sudan	19
3.2. Subnational Analysis	20
3.3. Analysing the composition of Multidimensional Poverty	21
3.4. Deprivations in indicators (uncensored headcount ratios)	23
4. Conclusions and Recommendations	26
4.1. Conclusions	26
4.2. Recommendations	26
References	28
Annexes	29
Annex 1: Process of developing EAC MPI	29
Annex 2: Proposed Universe of indicators for inclusion into EAC-MPI	30

1. Introduction

1.1. Background

The East African Community (EAC) is an inter-governmental organisation mandated by the Governments of Burundi, Democratic Republic of Congo, Kenya, Rwanda, South Sudan, Federal Republic of Somalia, Uganda and United Republic of Tanzania to spearhead the East African economic, social and political integration agenda. The integration Agenda is geared towards achieving high and shared growth to effectively reduce poverty and raise the living standards of East African people.

Whereas poverty reduction is an overarching priority within the EAC regional integration agenda, poverty remains one of the major challenges facing the EAC region. This is reflected in low incomes and inadequate purchasing power, in social indicators such as high levels of malnutrition and food insecurity, illiteracy, inadequate human capital, unemployment, underemployment, low life expectancy and unsatisfactory access to basic services and infrastructure needed to sustain basic human capacities. The EAC Vision 2050 target is to reduce the proportion of the population that lives on less-than US\$ 1.25 per day from 40% in 2014 to 5% by 2050. The other targets within the Vision relate to reduction of unemployment rates from 14% in 2014 to 5%, in 2050, universal primary school enrolment (100%), improving access to basic services such as safe water, improved sanitation, universal access to health services, modern energy sources and secondary school enrolment to 95% by 2050 (EAC, 2016).

The above regional targets represent a call for a comprehensive examination of deprivations in order to reveal the various aspects that are at the core of poverty. There is a growing understanding that poverty has many dimensions, that poor people suffer multiple deprivations at the same time. Within the Sustainable Development Goals (SDGs) framework, the multidimensionality of poverty has become more pronounced. SDG Goal 1 explicitly calls upon countries to end poverty *in all its forms* everywhere. Specifically, target 1.1 calls for eradication of extreme poverty for all people everywhere, currently measured as people living on less than \$2.15 a day while target 1.2 calls to “by 2030, reduce at least by half, the proportion of men, women and children living in poverty *in all its dimensions* according to national definitions. Target 1.4 aims at ensuring that by 2030, all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

1.2. Motivation for a regional multidimensional poverty measure

Until recently, countries within the EAC have measured poverty only by consumption or income. But no one indicator (such as consumption or income) can capture the

multiple aspects of poverty. Poverty is being increasingly understood and defined in terms of the multiple deprivations people face in their daily lives.

Within the EAC, a number of countries have already adopted multidimensional poverty measures to complement their money metric poverty measures. This is an expression of a growing consensus regarding the limitations of monetary poverty measures as standalone indicators. Uganda, Rwanda and Tanzania Mainland¹ have official national multidimensional poverty measures based on the Alkire Foster (AF) method with adaptations from the Global Multidimensional Poverty Index² (MPI) that is computed by UNDP and Oxford Poverty and Human Development Initiative (OPHI). In addition, most EAC Partner States compute and report child specific multidimensional poverty indices using Multiple Overlapping Deprivation Analysis (MODA), among other measures.

While national measures are relevant for the particular country in question, they are not applicable to monitoring poverty comparably at the regional level since they are based on differing dimensions, indicators, deprivation cut offs, varying poverty identification cut offs and aggregation approaches. It is thus not possible to aggregate such indices for a regional poverty estimation without ex-ante harmonisation. This implies that progress towards achievement of regional targets on poverty reduction cannot be monitored in a comparable way to show changes over time and guide regional interventions and policies.

Consequently, there was a need for a harmonised multidimensional measure that will generate comprehensive and comparable regional poverty statistics. The EAC MPI findings provide an important contribution to poverty measurement and policy debates in the region.

1.3. Purpose of EAC-MPI

A Multidimensional Poverty Index (MPI) creates a more comprehensive picture of poverty. It reveals who is poor and how they are poor by focusing on a range of different disadvantages that poor people experience. These disadvantages move beyond looking solely at a lack of money by focusing on people's life circumstances, their living condition and their capabilities.

The comparable regional EAC MPI offers a regional perspective on poverty and may be used in a number of ways:

¹ Tanzania Mainland has a draft national MPI pending publication

² The global Multidimensional Poverty Index (MPI) is an international measure of acute multidimensional poverty covering over 100 developing countries. It complements traditional monetary poverty measures by capturing the acute deprivations in health, education, and living standards that a person faces simultaneously.

- I. To monitor progress towards international and regional development goals and targets in a comparable way and provide important contribution to poverty measurement and policy debates in the region; and
- II. To complement monetary poverty measures, enabling a more comprehensive understanding of the simultaneous deprivations faced by the poor and providing evidence for more targeted and efficient poverty reduction interventions and policies.

2. Methodology

This chapter presents how the EAC multidimensional poverty was computed, the structure of the EAC-MPI and a description of the data used.

2.1. Alkire Foster Method

At the core of the MPI is the Alkire-Foster (AF) methodology. The AF methodology is a general framework for measuring multidimensional poverty that identifies people as poor or not poor based on a dual-cutoff counting method. The first order cut-off within each component indicator is applied to determine which person is “deprived” in that indicator. The information across all indicators is then aggregated to arrive at a deprivation score for each individual. The second order cut-off is then applied to identify the individuals who are multidimensionally poor. The AF methodology is an extension of the widely accepted Foster-Greer-Thorbecke (FGT) class of poverty measures and has a range of technical and practical advantages that make it favourable for use in non-monetary poverty estimation.

The AF method sums up the deprivations each person experiences in a weighted deprivation score, identifies who is poor, and aggregates this information into a headline and associated statistics.

Three key statistics are used to describe multidimensional poverty are:

- ✚ **Incidence** is the percentage of people who are poor (or headcount ratio, H).
- ✚ **Intensity** is the average share of indicators in which poor people are deprived (A).
- ✚ **MPI or M0 (adjusted headcount ratio)**, is the product of incidence and intensity ($MPI = H \times A$). MPI is the percentage of deprivations that poor people experience out of the total possible deprivations.

This method not only identifies who is poor but also innovates by incorporating how acute or intense the situation of multidimensional poverty is for the poor. The MPI can be broken apart by indicators to show the composition of poverty. This feature of dimensional detail brings added policy relevance to the analysis. For more detailed technical and theoretical underpinnings of the AF methodology, refer to Alkire and Foster (2011).

2.2. Measurement Design

2.2.1. Unit of identification and analysis

The unit of identification for being poor or non-poor is the household. Information on the members of a household is considered collectively, all of whom receive the same deprivation score. This implies that the deprivations are simultaneously experienced by all household members rather than isolated individuals. The unit of analysis is the individual, meaning that results are analysed for every individual, rather than for households.

2.2.2. Dimensions, indicators and weights

The structure of the measure lies at the heart of an MPI – that is, the dimensions and indicators that together measure poverty in a given context. The structure of the EAC MPI consists of four equally weighted dimensions namely: Education, Health, Basic services, and Living Standards & Employment. These dimensions are represented by a total of twelve indicators (Table 1). The EAC MPI utilises a set of dimensions, indicators, and cutoffs that reflect its priorities as expressed in the SDG framework, EAC Vision 2050, Regional Development Strategy and National Development Plans and national MPIs of EAC countries. The choice of dimensions, indicators, and cutoffs was agreed upon by various stakeholders that were involved in the conceptualisation and computation of the EAC MPI (refer to Annex 1 on the process of developing the EAC MPI).

Table 1: Structure of EAC MPI (Dimensions, Indicators and Weights)

Dimension (weight)	Indicator (weight)	Household is deprived if	Link to global and regional targets
Education ³ (1/4)	School attendance (1/8)	Any child of primary school age ⁴ in the household is not attending school.	SDG 4.1; EAC2050 2.2
	Years of schooling (1/8)	No eligible household member aged (<i>'school entrance age + years of primary school cycle or older</i>) has completed primary school	SDG 4.6; EAC2050 2.6
Health (1/4)	Access to health services (1/8)	At least one household member was sick or injured in the last 30 days preceding the survey and did not seek medical care.	SDG 3.8; EAC2050 1.9
	Health insurance (1/8)	There is nobody in the household with any kind of health insurance.	SDG 3.8.2; EAC2050 1.9

³ This looks at only the formal education and excludes Quranic education, Madrasa and Kalwa etc

⁴ School entrance age + years of primary school cycle' -1

EAC Multidimensional Poverty Index, 2024

Basic Services (1/4)	Access to improved drinking water (1/16)	The household does not have access to improved ⁵ drinking water (according to SDG guidelines for basic service level) OR improved drinking water is longer than a 30-minute walk from home, round trip (including queuing) ⁶ .	SDG 1.4.1; SDG 6.1; EAC2050 1.9
	Access to improved toilet (1/16)	The household has no toilet facility or household's toilet facility is unimproved (according to SDG guidelines for basic service level) OR it is improved but shared with other households.	SDG 1.4.1; SDG 6.1; EAC2050 1.9
	Source of energy for lighting (1/16)	The main source of lighting is not electricity e.g. national/ mini grid, solar, generator) and other sources of clean energy for lighting (e.g. bio gas)	SDG 7.1; EAC2050 1.9 & 4.2
	Cooking fuel (1/16)	Household cooks with dung, shrubs, wood, charcoal or coal, kerosene, diesel as the primary/main source of cooking fuel.	SDG 7.1, SDG 3.9.1
Living standards & Employment (1/4)	Housing materials (1/16)	Household has inadequate ⁷ housing materials in any of the three housing materials: floor, roof, or walls.	SDG 11.1
	Overcrowding (1/16)	Household has more than 3 people per sleeping room, on average.	SDG 11.1
	Asset ownership (1/16)	Household does not have at least two of these assets (radio, TV, telephone, computer, bike, motorbike, motorcycle, rickshaw, boat, donkey, camel, cattle) and does not own a car or truck .	SDG 1
	Unemployment (1/16)	At least one member of working age population (15-64) years is unemployed —not in employment, but looking for work and available for work in the past 7 days.	SDG 8.5.2; EAC2050 1.5

In the following subsections, the Report provides a short motivation about the extent of the selected indicators to “capture the essence” of some dimension of poverty and provides a justification for the selected deprivation cut off.

I. Education

Education has been widely recognised as a human right and also an enabling human right (UNESCO et al., 2015). It is a key instrument for achievements in other important dimensions, such as decent work, better health and social participation. SDG 4 aims at ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. EAC Vision 2050, notes that well-educated, enlightened and healthy human resources are essential to facilitate development in the region. The

⁵ Improved sources include: piped water, boreholes or tube wells, protected dug wells, protected springs, and packaged or delivered water, rain water. Delivered water (e.g. tanker truck, cart) is considered improved based on JMP 2017 Guidelines by WHO and UNICEF.

⁶ Improved facilities include: flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs and must not be shared with another household.

⁷ A household is considered deprived if the dwelling's **floor** is made of mud/clay/earth, sand or dung; or if the dwelling has no roof or walls or if either the roof or walls are constructed using natural materials such as cane, palm/trunks, mud, dirt, grass/reeds, thatch, bamboo, sticks or rudimentary materials such as carton, plastic/ polythene sheeting, bamboo with mud/stone with mud, loosely packed stones, uncovered adobe, raw/reused wood, plywood, cardboard, unburnt brick or canvas/tent.

focus of Vision 2050 is on improving access to education and completion rates, particularly at higher levels and skills development. The region is committed to achieving universal access to primary education (100%) and improving secondary school enrolment to 95% by 2050. The proposed indicators are school attendance (access indicator) and years of schooling (an achievement indicator).

School attendance: The indicator for school attendance is the logical precursor to the indicator for years of schooling. A child not attending school is indicative of both the present set of deprivations experienced by the household as well as the possible future deprivations that may unfold as a result of the child not attending school. A child not attending school is illustrative of a greater set of deprivations being experienced by the household that acts as an impediment to the education of the child. Similarly, because the child is not attending school, the household members will be deprived of the positive externalities that arise from having a formally educated member in the household.

Years of Schooling: Education attainment has a shared positive effect on the household, wherein even if one member has completed at least primary school level there is positive effect of that education. The logic is that illiterate people that live in a household where at least someone is literate enjoy some of the literate person's abilities; in other words, they enjoy an intra-household externality (Santos and Ura, 2008). EAC 2050 envisions universal adult literacy rate (100%) by 2050.

II. Health

A lack of access to health care is one expression of poverty. The health status of a person can enable or inhibit a wide range of capabilities, including being "employable", remaining healthy for work, developing cognitive skills, and enjoying subjective well-being. Lack of health has the potential to be a source of a number of different poverty traps (Banerjee and Duflo, 2011). This dimension is assessed through two indicators: access to health services (whether the person has received a medical check or treatment when needed) and whether any member of the household has access to medical insurance to guard against catastrophic health expenditures.

Access to health services: Improving quality and access to health services is a critical enabler for achieving the Vision of the region. Consequently, the region envisions universal access to health services. A household is considered deprived if at least one household member was sick or injured in the last 30 days preceding the survey and did not seek medical care.

Health Insurance: Access to health insurance is one of the indicators of access to health care. When people have to pay fees or co-payments for health care, the amount can be so high in relation to income that it results in "financial catastrophe" for the individual or the household. Such high expenditure can mean that people have to cut down on necessities such as food and clothing, or are unable to pay for their children's education. Poor households are likely to sink even further into poverty

because of the adverse effects of illness on their earnings and general welfare. Priority seven (7) of the 2018-2028 EAC Health Sector Investment Priority Framework (EAC 2018) requires each Partner State to establish and or expand their national health insurance and social protection schemes to support the universal health coverage, including financial risk protection (EAC 2018). For the EAC MPI, a household is considered deprived if there is **nobody** in the household with any kind of health insurance.

III. Basic Services

Basic services are fundamental to improving living standards. Living under extreme poverty often encompasses deprivations in basic services. SDG 1.4 Indicator 1.4.1 is the “proportion of population living in households with access to basic services”. Basic Services⁸ refer to public service provision systems that meet human basic needs such as drinking water, sanitation, hygiene, energy, mobility, waste collection (UN 2017). Within this dimension, the proposed indicators are access to basic drinking water services, access to improved toilet, and access to clean energy represented by two indicators (access to electricity for lighting and clean cooking fuel).

Access to Improved drinking Water: Access to safe water and sanitation is now a globally accepted human right with multiple well-studied health benefits. As per the Joint Monitoring Program (JMP) water service ladder and SDG 1.4.1, access to basic drinking water services refers to the use of drinking water from an improved source that is available with a collection time of not more than 30 minutes for a round trip, including queuing. Improved sources include: piped water, boreholes or tube wells, protected dug wells, protected springs, and packaged or delivered water (WHO and UNICEF 2017). This definition is based on the JMP drinking water ladder and is the foundation for SDG indicator 6.1.1 - Proportion of population using safely managed drinking water services. The target for access to safe water within the EAC Vision 2050 is 93%.

Access to improved toilet: Like water, access to improved sanitation is a globally accepted human right with multiple well-studied health benefits. As per the JMP ladder and SDG 1.4.1; access to improved toilet refers to the use of improved facilities that are not shared with other households. Improved facilities include: flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs (WHO and UNICEF 2017). This definition is based on the JMP sanitation ladder and is the foundation for SDG indicator 6.2.1 - Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water. The target for access to improved sanitation within the EAC Vision 2050 is 90% by 2050.

⁸ <https://unstats.un.org/sdgs/metadata/>

Source of energy for lighting: Access to electricity addresses major critical issues in all the dimensions of sustainable development. Goal 7.1 states “By 2030, ensure universal access to affordable, reliable and modern energy services” while indicator 7.1.1 looks at the “proportion of population with access to electricity”. The EAC envisions access rates of 90% by 2050. (EAC 2016). However, the presence of an electricity connection in the household does not necessarily guarantee that the households are using it. Usage may be hampered by issues of quality and reliability or affordability. To better capture usage, the EAC indicator looks at the main source of lighting and a household is deprived if the main source of lighting is **not electricity** (e.g. national/ mini grid, solar, generator) and other sources of clean energy for lighting (e.g. bio gas).

Cooking fuel: The use of inefficient fuels for cooking alone is estimated to cause over 4 million deaths annually, mainly among women and children⁹. These adverse health impacts can be avoided by adopting clean fuels and technologies for all main household energy and-or in some circumstances by adopting advanced combustion cook stoves (i.e. those which achieve the emission rates targets provided by the WHO guidelines) and adopting strict protocols for their safe use. One of the indicators under Goal SDG 1.7 relates to increasing the proportion of the population with primary reliance on clean fuels and technology. The cleanest cooking fuels are electricity, gas and, more recently, alcohol (ethanol), as these emit negligible quantities of health-damaging pollutants (Practical Action, 2010). A household is thus considered deprived if it cooks with dung, shrubs, wood, charcoal or coal, kerosene, diesel as the primary/main source of cooking fuel.

IV. Living Standards and Employment

People living in adequate homes have better health, higher chances to improve their human capital¹⁰. EAC Vision 2050 envisions promoting economic transformation and development policies that support inclusive housing and social services; a safe and healthy living environment for all while Target 11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums. Within the living standards & employment dimension, the proposed indicators are housing materials, overcrowding, asset ownership and unemployment.

Housing materials: The dwelling is a unit composed of three elements: floor, walls and roof. The materials and ways in which these have been built, as well as the dimensions, will determine the dwelling’s quality and adequacy (SDG target 11.1.1). There are obvious health risks associated with inadequate dwelling materials, including vulnerability to rodents and cockroaches, which transmit diseases (Matte and Jacobs, 2000); acute respiratory infections (Suriyasa et al., 2006); the development of allergies and asthma, among others. Inadequately built houses are

⁹ <https://unstats.un.org/sdgs/metadata/>

¹⁰ <https://unstats.un.org/sdgs/metadata/>

also obviously vulnerable to collapse under strong weather conditions. Beyond this, inadequate shelter also influences the psychological state of its dwellers by failing to provide the safety, privacy and security a home is supposed to offer. Deprived housing materials are perhaps one of the most visible aspects of poverty, with impacts on many other dimensions (Santos, 2019).

Overcrowding: Overcrowding is considered a risk factor for physical health, mental health and child development. Its contribution to the propagation of respiratory diseases, tuberculosis and allergies is frequently mentioned. The number of persons per room has been shown to correlate with adverse health risks (UN Habitat, 1998). A dwelling unit provides sufficient living area for the household members if not more than three people share the same habitable room. Hence a household is considered deprived if it has more than 3 people per sleeping room. Target 11.1 calls for “access for all to adequate, safe and affordable housing and basic service and upgrading of slums”.

Asset ownership: From a capability approach perspective, durable goods enable people to achieve their desired functionings (with varying conversion rates across individuals). These functionings include mobility and communications (car, motorcycle, bike, phone), which in turn enhance work capacity and employability; education and cognitive skills development (a computer, for example); and leisure (Television or radio), which can also affect productivity.

There is no international standard for an indicator of durable goods or assets per se. However, a review of national MPIs in the region and the Global MPI shows consensus on the inclusion of assets that facilitate access to information and transport in the MPI. Besides, facilitating the attainment of universal access to information, communication and technology (ICT) and postal infrastructure and services is one of the interventions highlighted towards achieving EAC’s Vision 2050 for ICT. Hence a household is considered deprived if it does not have at least two assets (radio, TV, telephone, computer, bike, motorbike, motorcycle, rickshaw, boat, donkey, camel, cattle) **and** does not own a car or truck (Car/truck is used as a veto). The aspect of livestock ownership was added to cater for the rural population since livestock is considered one of the crucial assets in the rural context.

Unemployment: The relevance of employment goes beyond its (potential) enabling power to provide an adequate standard of living and a way out of poverty. It is also an important means of social integration; it provides self-reflect and fulfilment and prevents isolation from society’s prevailing lifestyle and culture (Atkinson et al., 2002). Goal 8 addresses the achievement of productive employment and decent work for all and the EAC Vision 2050 focuses on initiatives that will create gainful employment to the economically active population with a target of reducing unemployment to about 5% by 2050.

2.2.3. Weights

The EAC-MPI used the equal nested weights, assigning 1/4 to each of the four dimensions of education, health, basic services and living standards & employment. Within each of the dimensions, indicators were assigned equal weights. It is assumed that each dimension has the same relevance as a constitutive element of the index and for public policy.

2.2.4. Poverty cut off

The poverty cutoff of the EAC-MPI is specified at 1.5 of the dimensions, meaning that a person whose weighted count of simultaneous deprivations constitute at least 38 percent of the weighted indicators included in the EAC-MPI is considered multidimensionally poor.

2.3. Data sources

Selecting the data source for the computation of the MPI is a fundamental step. As multidimensional poverty measures look at the simultaneous hardships that individuals or households experience, the source of information used to compute the MPI needs to include micro-level data—information for each individual or household, depending on the chosen unit of identification. As the MPI requires a complete deprivation profile for each unit, information on all indicators must be available for each person and come from the same source of data.

The computations for the EAC MPI were based on nationally representative Household Budget Surveys (refer to Table 2) undertaken by EAC Partner States. As it may be observed in Table 2, the timing of the surveys varies across countries hence the 2024 EAC MPI is only a baseline which will be updated as and when countries conduct new surveys.

Table 2: Data Sources for EAC MPI by Partner State

Country	EAC MPI Data Source		Year	Data gaps in relation to the EAC-MPI data requirements
	Survey			
Somalia	Somalia Integrated Household Budget Survey (SIHBS)		2022	No direct question on access to health insurance per individual. Proxy questions on health insurance from labour and expenditure modules were used.
Uganda	Uganda Household Survey (UNHS)	National Survey	2019/20	None
Burundi	Integrated Survey on Household Conditions in Burundi (EICVMB)		2019/20	None
URT-Zanzibar	Household Survey (HBS)	Budget	2019/20	None

EAC Multidimensional Poverty Index, 2024

URT-Mainland	Household Budget Survey (HBS)	2017/18	Health access indicator had a 2-weeks recall period (rather than 30 day/4 week/1 month) recall period.
Rwanda	Rwanda - Integrated Household Conditions Survey (EICV5)	2016/17	Improved drinking water: No data on time taken to and from a household's main source of drinking water. The uncensored headcount estimate on this indicator is biased downwards.
Kenya	Kenya Integrated Household Budget Survey	2015/16	None
South Sudan	High Frequency Survey (HFS), wave 3 ¹¹	2016	a. Health dimension: no data on access to health and on health insurance. b. Housing indicator: "Type of structure" was used instead of three separate questions on roof, wall and floor.
DRC	Employment, Informal Sector and Household Consumption Survey (1-2-3 Survey)	2012	Improved drinking water: No data on time taken to and from a household's main source of drinking water. The uncensored headcount estimate on this indicator is biased downwards.

¹¹ Due to insecurity issues, the 2016 HFS survey covered only seven (7) out of the ten (10) States

3. Key Findings on Multidimensional Poverty in the EAC Region

As highlighted in Chapter 2, three key statistics are used in analysing multidimensional poverty. The first is the incidence or headcount ratio of poverty (known as H), which is the percentage of people who are multidimensionally poor. The second is the intensity of poverty (known as A), which reflects the average share of weighted deprivations that poor people experience. Lastly, the MPI or adjusted headcount ratio (calculated as a product of H and A), reflects the deprivations experienced by poor people as a percentage of deprivations that poor people experience out of the total possible deprivations. The following subsections provide key findings on these key statistics.

3.1. The extent of poverty in the EAC region

3.1.1. Multidimensional poverty index, Incidence and Intensity of poverty

Multidimensional Poverty Index (MPI): Despite the progress realised in reducing monetary poverty over the past decade, multidimensional poverty remains prevalent within the EAC. The MPI scores (i.e, share of possible deprivations that the poor people are experiencing) are 0.126 in Zanzibar-URT, 0.209 in Rwanda, 0.277 in Mainland-URT, 0.318 in Uganda, 0.328 in Burundi, 0.425 in Somalia and 0.475 in DRC, reflecting disparities across Partner States.

Table 3: Multidimensional Poverty in EAC Partner States¹²

Country	MPI data source		Multidimensional poverty			Population 2021 ¹³	
			Multidimensional Poverty Index (MPI = H*A)	Headcount ratio: Population in multidimensional poverty (H)	Intensity of deprivation among the poor (A)	Estimated Population 2021	Number of MPI poor people
	Survey	Year	Range 0 to 1	% Population	Average % of weighted deprivations	Thousands	Thousands
Somalia	SIHBS	2022	0.425	69.8	60.9	16,970	11,845
Burundi	EICVMB	2019-2020	0.328	59.7	55.0	12,793	7,637
Uganda	UNHS	2019-2020	0.318	57.1	55.8	45,178	25,797
URT-Mainland	HBS	2017-2018	0.277	50.1	55.4	57,724	28,920
URT- Zanzibar	HBS	2019-2020	0.126	24.2	52.0	1,717	416
Rwanda	EICV5	2016-2017	0.209	37.9	55.1	13,211	5,006
Kenya	KIHBS	2015-2016	0.226	40.8	55.3	52,727	21,513
DRC	1-2-3	2012	0.475	79.1	60.1	97,567	77,175
Total						297,8887	178,308

Source: Computations by EAC Partner State

¹² South Sudan is analysed separately due to data gaps on access to health services and health insurance. Their structure has 10 indicators instead of the twelve (12) that were used in the rest of the Partner States

¹³ Based on UNDESA 2024 population estimates

Headcount ratio: Underpinning the MPI are high headcount ratios; about 60 percent of the EAC population is multidimensionally poor by the EAC MPI. At Partner State level, multidimensional poverty affects at least one in three individuals in Rwanda and Kenya (37.9% and 40.8% respectively); one in every two individuals (over 50%) in Tanzania (mainland), Uganda and Burundi; and seven in every ten individuals (70%) in Somalia and DRC (refer to headcount ratio in Table 3). For URT (Mainland and Zanzibar), multidimensional poverty affects about 49.3 % of the total population.

Intensity of Multidimensional poverty: The EAC MPI uses intensity (A) to further probe the lived reality of multidimensional poverty. The intensity of poverty among the poor is generally high and similar across the poor in all EAC Partner States. For all EAC Partner States, irrespective of the headcount poverty ratio, the multidimensional poor suffer more than 50% of the weighted deprivations on average. This simply means that the poor suffer a high number of deprivations (i.e. they are deprived in more than two full dimensions of the EAC MPI).

3.1.2. Multidimensional Poverty in South Sudan

Unlike the rest of the EAC Partner States where computations of the EAC MPI were based on four (4) dimensions and 12 indicators, due to data challenges, the EAC MPI for South Sudan is based on 3 dimensions and 10 indicators. As such, the EAC MPI for South Sudan is not directly comparable with the rest of the Partner States. Regarding weights, equal nested weights were used by assigning 1/3 to each of the three dimensions of education, basic services and living standards & employment. Within each of the dimensions, indicators were assigned equal weights. The poverty cut off is 38% (about 1.2 of the weighted dimensions).

Table 4: Multidimensional poverty in South Sudan

Level of Analysis	MPI	H (%)	A (%)
National	0.647	93.3	69.3
Rural	0.687	97.2	70.7
Urban	0.371	67.0	55.4
Indicator	Censored headcounts (%)	% contribution of indicators to MPI	Uncensored headcounts (%)
School attendance	62.0	16.0	62.5
Years of schooling	52.0	13.4	52.1
Drinking water	41.9	5.4	44.2
Sanitation	86.5	11.1	88.1
Energy for lighting	92.2	11.9	97.4
Cooking fuel	93.3	12.0	99.9
Housing	91.3	11.8	95.0
Overcrowding	61.0	7.9	61.8
Assets	77.1	9.9	78.1
Unemployment	5.2	0.7	5.6

Source: Computations by SSNBS based on High Frequency Survey (HFS), 2016

Key Findings: The MPI score for South Sudan is 0.647, meaning that the poor experience 64.7% of the total possible deprivations. The headcount ratio is 93.3 percent, implying that 9 out of every 10 persons are multidimensionally poor (Table 4).

The intensity of poverty at national level is 69.3%, implying that the poor experience close to 70% of the deprivations on average (i.e. they are deprived in more than two out of the three dimensions). Multidimensional poverty (MPI, H and A) is higher in rural areas compared to the urban areas.

The highest censored headcount ratios are registered in cooking fuel, energy for lighting, housing, sanitation and assets. The dimension of basic services contributes the highest percentage to multidimensional poverty in South Sudan at 40.4%.

3.2. Subnational Analysis

The MPI and the rural-urban divide: A key feature of the MPI is its ability to be disaggregated by residence such as rural/urban and other geographical levels. The disaggregated EAC MPI reveals high levels of inequality at the spatial level (between rural and urban areas) within countries (Table 5). Rural areas remain the most affected and experience the highest levels of deprivation. While the headcount poverty is higher in rural areas for all Partner States, the depth or intensity of poverty (A) experienced by the multidimensional poor is high (over 50%) for both rural and urban residents.

Table 5: Multidimensional Poverty in EAC Partner States, by Residence

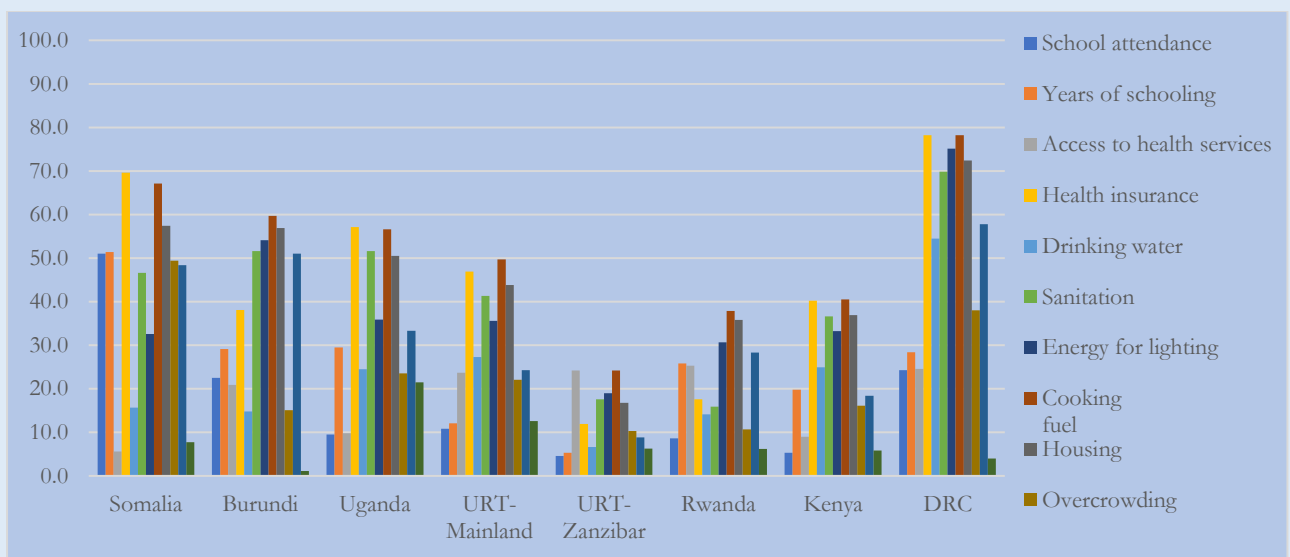
Country	Residence	MPI	H (%)	A(%)
<i>Somalia</i>	Rural	0.476	78.1	60.9
	Urban	0.357	61.3	58.2
<i>Burundi</i>	Rural	0.347	62.8	55.2
	Urban	0.181	34.4	52.6
<i>Uganda</i>	Rural	0.370	65.8	56.2
	Urban	0.175	32.9	53.3
<i>URT- Mainland</i>	Rural	0.355	63.3	56.1
	Urban	0.112	21.9	51.1
<i>URT- Zanzibar</i>	Rural	0.188	35.30	53.2
	Urban	0.048	10.30	46.9
<i>Rwanda</i>	Rural	0.234	42.4	55.1
	Urban	0.099	17.7	56.2
<i>Kenya</i>	Rural	0.287	51.3	56.0
	Urban	0.114	21.8	52.3
<i>DRC</i>	Rural	0.586	94.6	61.9
	Urban	0.299	54.6	54.9

Source: Computations by EAC Partner States

3.3. Analysing the composition of Multidimensional Poverty

Censored headcount ratios: The censored headcount ratios represent the proportion of the population who are both multidimensionally poor and are deprived in a given indicator. The censored headcount ratios show which deprivations are affecting poor people the most. Figure 1 shows not only how the ratios vary across countries, but also how the mix of salient deprivations differs from country to country. Across all countries, the highest censored headcount ratios are registered in cooking fuel, health insurance (except for Rwanda and Burundi), housing and sanitation (Figure 1).

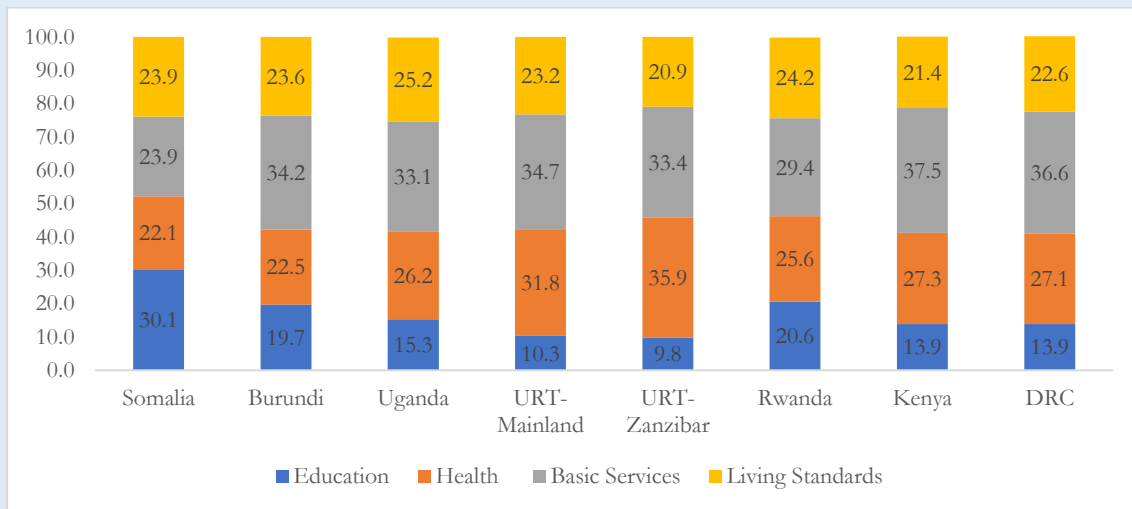
Figure 1: Censored headcount ratios of MPI Indicators for EAC Partner States



Source: Computations by EAC Partner States

Percentage contribution of dimensions: The MPI may also be disaggregated to show contribution of each of the dimensions and indicators to the MPI. Figure 2 presents the percentage contributions of each of the four dimensions of the EAC MPI for all EAC countries.

Figure 2: Percentage contributions of MPI dimensions for EAC Countries

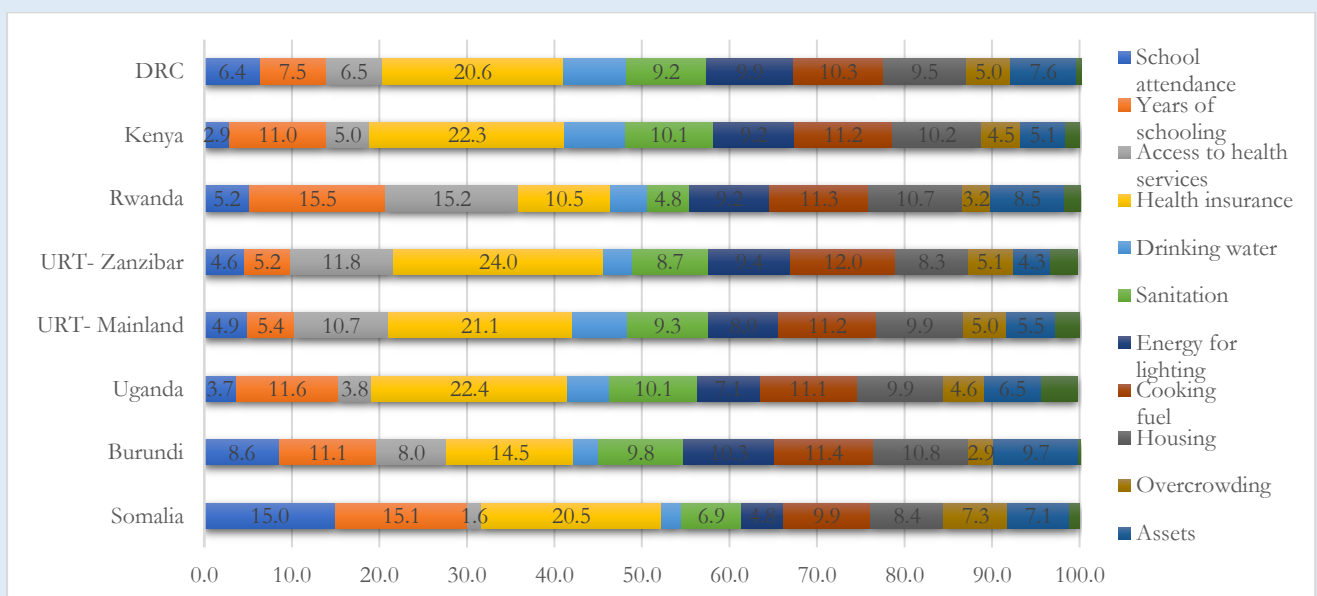


Source: Computations by EAC Partner States

The dimension of basic services is the main contributor to multidimensional poverty in all EAC countries except Somalia where the education dimension is the largest contributor and Zanzibar where the health dimension is the leading contributor. With the exception of Somalia, the education dimension is the least contributor to multidimensional poverty.

Percentage contribution of indicators: At indicator level, the highest contributors are health insurance, cooking fuel, years of schooling, housing and sanitation. The lowest contributions were registered in unemployment, overcrowding and access to improved drinking water (Figure 3).

Figure 3: Percentage (%) contributions of MPI Indicators by country



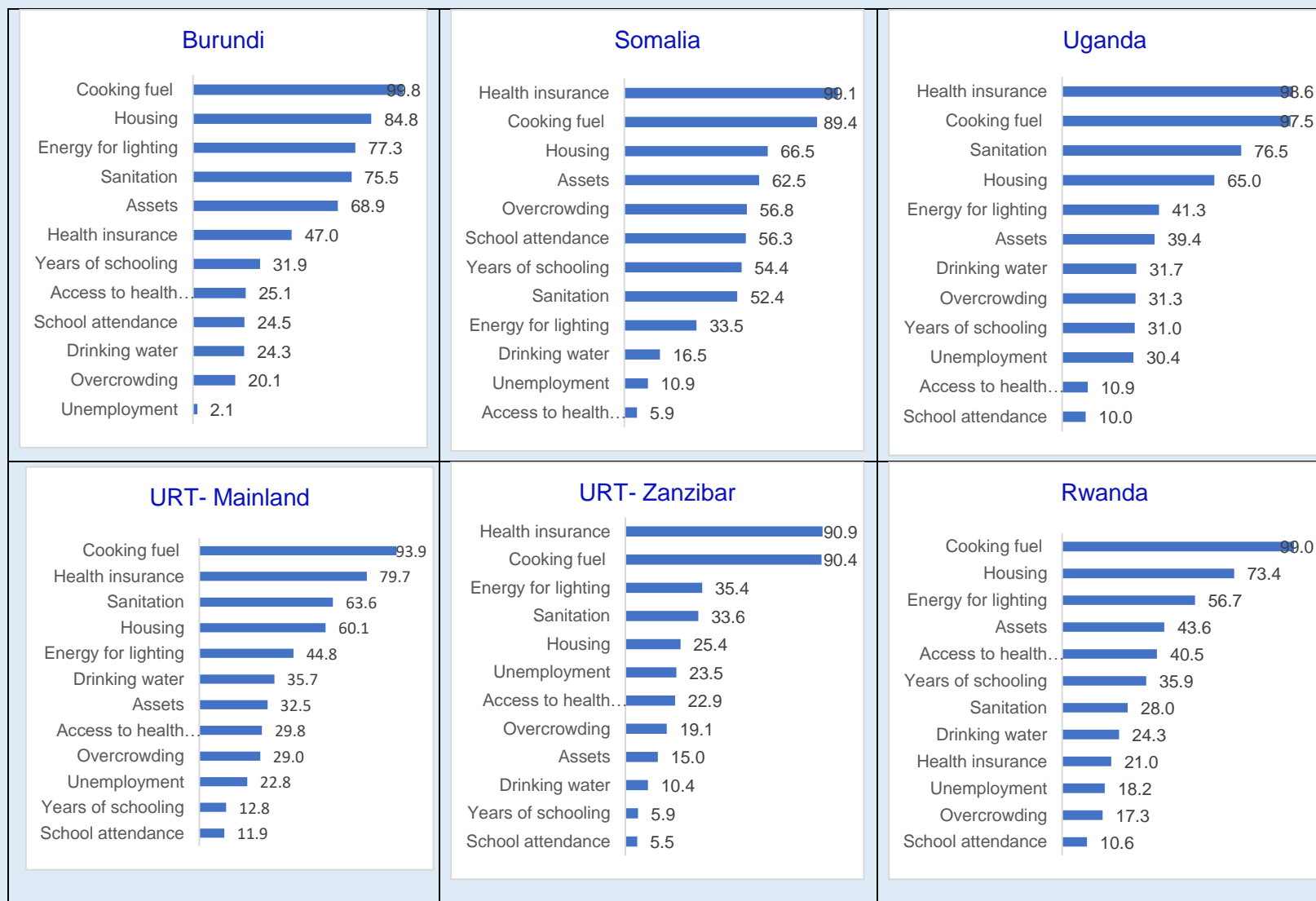
Source: Computations by EAC Partner States

3.4. Deprivations in indicators (uncensored headcount ratios)

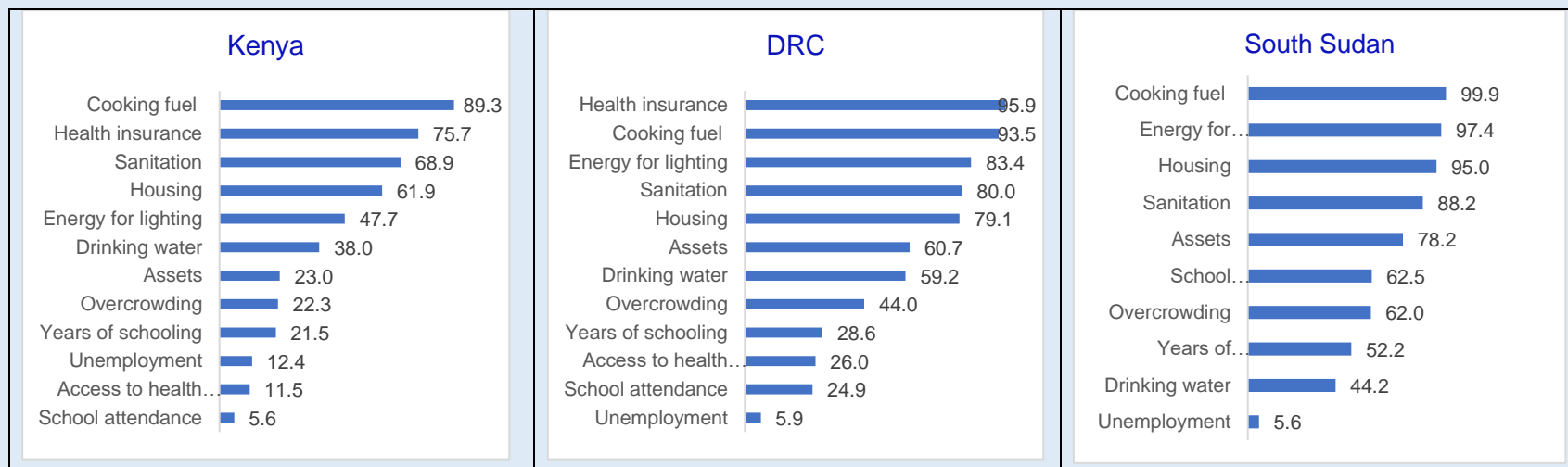
The similarities and differences across Partner States are also evident in the uncensored headcount ratios. In contrast to the censored headcounts that focus only on deprivations experienced by the multidimensionally poor, uncensored headcounts reflect the percentage of the total population - both the multidimensionally poor and non-poor - who are deprived in each of the 12 indicators (Figure 4). The uncensored headcount ratios are an important reminder of levels of deprivation on the various indicators even where countries may have a low MPI.

It is clear that deprivation in cooking fuel is a pervasive problem for all countries in East Africa irrespective of whether one is poor or not. The deprivation rates range from 89.3% to 99% across all the countries. Access to health insurance is another indicator where most countries are not performing well; the average deprivation score for EAC is about 75%. Access to sanitation and housing are other indicators where most countries are experiencing relatively high deprivation rates irrespective of poverty status (Figure 4).

Figure 4: Uncensored headcount ratios by Partner State (%)



EAC Multidimensional Poverty Index, 2024



Source: Computations by EAC Partner States

4. Conclusions and Recommendations

4.1. Conclusions

The extent and spread of poverty: Multidimensional poverty remains prevalent, affecting 60 percent of the EAC population. Rural areas remain the most affected and experience the highest levels of deprivation. The MPI scores are 0.126 in Zanzibar-URT, 0.209 in Rwanda, 0.277 in Mainland-URT, 0.318 in Uganda, 0.328 in Burundi, 0.425 in Somalia and 0.475 in DRC, reflecting disparities across Partner States.

Intensity of Poverty: The extent – or intensity – of poverty is measured through the percentage of deprivations that the multidimensional poor they are experiencing. While the headcount poverty varies markedly among Partner States, the intensity of poverty among the poor is generally high and similar across the poor in EAC countries. In all EAC countries, the intensity of poverty among the poor was above 50 percent. This implies that the poor experience deprivation in more than two full dimensions out of the four dimensions.

Main drivers of multidimensional poverty: Multidimensional poverty is largely driven by the basic services dimension in all Partner States (29% to 36.6% of observed poverty) except Somalia where the highest driver is the Education dimension (30.1%) and Zanzibar where the leading contributor is the health dimension. At indicator level, the highest contributors are health insurance, cooking fuel, years of schooling, housing and sanitation.

Data challenges: The development and estimation of the EAC MPI was somewhat constrained by a number of factors related to data availability and their temporal and cross-sectional comparability. Certain indicators could not be covered as they were not collected and compiled systematically and comprehensively in surveys across the countries. Moreover, some of the surveys used in the analysis are relatively old.

4.2. Recommendations

There is a need to prioritise and accelerate the implementation of existing national and regional policies and action plans that have an impact on deprivations that are predominantly high. In particular, the region needs interventions in the following areas:

1. **Promoting use of clean energy:** Deprivation in access to clean cooking fuel is widespread in the region. This is likely to damage people's health and impair productivity improvements. Forest degradation, sometimes leading to deforestation, is another serious consequence of the unsustainable harvesting of fuelwood and charcoal. There is a need to adopt national/regional strategy to accelerate the sustainable transition to clean cooking fuels and

technologies, given that majority of the population cook with dung, wood or charcoal.

- II. **Improvement in access to basic services:** The EAC Vision 2050 envisages 90% access to improved sanitation, 93% access to safe water and 90% access to electricity by the EAC population by the year 2050. Yet, the results from the MPI reveal that countries are way below the 2050 targets. There is a need to prioritise investments in the much-needed basic services so as to improve the quality of life of the people of East Africa.
- III. **Establishment of national health insurance schemes in countries where they do not exist:** Priority seven (7) of the 2018-2028 EAC Health Sector Investment Priority Framework requires each Partner State to establish and or expand their national health insurance and social protection schemes to support the universal health coverage, including financial risk protection. However, the results from the EAC-MPI show that access to health insurance in most of the EAC Partner States is low. Expansion of health insurance will reduce out of pocket expenditure that disrupts the household level of living and pushes many families into the medical poverty trap and distress financing.
- IV. **Strengthening data collection for evidence-based poverty reduction policies:** To further improve future multidimensional poverty analysis in the region and to update it at regular intervals, it is critical for countries to invest in the system of their national surveys that can produce robust estimates on a range of deprivation indicators at the level of household and individual.

References

- Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. *Journal of public economics*, 95(7), 476-487.
- Banerjee, A., and Duflo, E. (2011), *Poor Economics. A Radical Rethinking of the Way to Fight Global Poverty*.
- East African Community (EAC) 2016, *Vision 2050. Regional Vision for Social Economic Transformation and Development*. Arusha Tanzania.
- East African Community (EAC) 2020, *Health Sector Investment Priority framework (2018 - 2028)*. Arusha Tanzania.
- <https://unstats.un.org/sdgs/metadata/>
- M.E. Santos, (2019). Non-monetary indicators to monitor SDG targets 1.2 and 1.4: standards, availability, comparability and quality", *Statistics series, No. 99 (LC/TS.2019/4)*, Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
- Matte, T. D., Jacobs, D. E. (2000), "Housing and Health. Current Issues and Implications for Research and Programmes". *Journal of Urban Health: Bulletin of the New York Academy of Medicine* 77(1): 7-25.
- Practical Action (2010) *Poor People's Energy Outlook 2010*. Rugby, UK.
- Suppa, N. (2023). mpitb: A toolbox for multidimensional poverty indices. *The Stata Journal*, 23(3), 625-657. <https://doi.org/10.1177/1536867X231195286>
- Suriyasa, P., Balgis, Saptono, R., Hapsari, M. I. (2006). Non-dirt house floor and the stimulant of environmental health decreased the risk acute respiratory infection (ARI)". *Medical Journal of Indonesia* 15(1): 60-65.
- UN-Habitat (1998), *Crowding and Health in Low Income Settlements of Guinea Bissau*, SIEP Occasional Series No.1.
- United Nations, Department of Economic and Social Affairs, Population Division (2024). *World Population Prospects 2024*, Online
- World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 2017. *Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines*. Geneva.

Annexes

Annex 1: Process of developing EAC MPI

	Timeline	Activity	Outcome
1	28 th to 30 th March 2023, Kigali- Rwanda <i>Attended by participants from all EAC Partner States, EACS and OPHI</i>	1st consultative regional meeting on the need and relevance of a multidimensional poverty measure for the EAC region	<ul style="list-style-type: none"> The meeting observed that a regional multidimensional poverty measure is timely and a welcome development; The meeting considered the various multidimensional measures as presented in the meeting and adopted the MPI based on AF counting method as a measure of multidimensional poverty at the regional level; The meeting brainstormed on a universe list of indicators for the EAC-MPI.
2	31 st May- 2 nd June, 2023 Arusha, Tanzania	13th Ordinary Meeting of the Sectoral Committee on Statistics – Dedicated session of heads of national statistics offices	<ul style="list-style-type: none"> SCS directed the EAC Secretariat to fast track the development of the EAC multidimensional poverty index
3	19 th – 22 nd June, 2023 Dar es salaam, Tanzania <i>Attended by participants from all EAC Partner States, EACS</i>	2 nd Consultative regional meeting on Development of a Regional Multidimensional Poverty Index	<ul style="list-style-type: none"> Meeting agreed on a draft structure of EAC MPI (i.e. dimensions, indicators and deprivation cut offs) based on data availability from all Partner States
4	6 th – 10 th November, 2023 Entebbe, Uganda <i>Attended by participants from all EAC Partner States, EACS and OPHI</i>	3rd regional meeting on development of EAC Multidimensional Poverty Index	<ul style="list-style-type: none"> Partner States made presentations on indicator construction (survey questions used to construct indicators, data challenges, indicator construction in Stata, uncensored headcounts). EAC-MPI structure was revised based on the preliminary analysis presented by Partner States and some indicators were dropped based on data availability Discussed and agreed on equal nested weights
5	23 rd – 28 th June, 2024 Entebbe, Uganda <i>Attended by participants from all EAC Partner States, EACS and OPHI</i>	4th regional meeting on development of EAC Multidimensional Poverty Index	<ul style="list-style-type: none"> Agreement on final structure, revised weights and agreed on EAC MPI and poverty cut off Computation of draft EAC-MPI and production of 1st draft EAC-MPI Report

Annex 2: Proposed Universe of indicators for inclusion into EAC-MPI

Indicator	Exclusion/inclusion criteria for EAC/MPI
1. School attendance	Included
2. Early childhood education	Not all countries have a policy on early childhood and stakeholders decided to do away with it during consultative meetings
3. Years of schooling	Included but looked at primary school completion
4. Late attendance/ lag	The two indicators on were deemed enough to capture the deprivations in education
5. Literacy	The indicator on years of schooling already indirectly captures literacy; so, indicator was deemed redundant
6. Access to electricity	Included but considered source of energy for lighting
7. Access to improved water	Included
8. Improved sanitation	Included
9. Housing conditions/quality	Included
10. Housing tenure	Was not deemed to be highly correlated with poverty
11. Household Assets	Included
12. Overcrowding	Included
13. Clean energy for cooking	Included
14. Clean energy for lighting	Included
15. Garbage disposal	Data challenges: Most EAC Partner States do not collect this data in the HBS
16. Health insurance	Included
17. Food security	Data challenges: Most EAC Partner States do not collect this data in the HBS
18. Nutrition (underweight, stunting, wasting, BMI)	Data challenges: Most EAC Partner States do not collect this data in the HBS
19. Health provider assisted delivery	Data challenges: Most EAC Partner States do not collect this data in the HBS
20. Place of delivery	Data challenges: Most EAC Partner States do not collect this data in the HBS
21. Access to health services (distance/time)	Included access to health but without consideration of distance and time to health facilities due to data challenges
22. Child immunisation	Data challenges: Most EAC Partner States do not collect this data in the HBS
23. Child mortality	Data challenges: Most EAC Partner States do not collect this data in the HBS
24. Unemployment	Included
25. Child labour	Data challenges: While HBS surveys collect labour data on children under 5 years, the criterion of age alone is not enough to categorise someone as being in child labour
26. Job diversity (only subsistence, precarious, casual)	Included in initial trial versions but later dropped in final structure due to incomparability arising from data insufficiency in some Partner States
27. Financial inclusion (bank account, mobile money etc)	Included in initial trial versions but later dropped in final version due to incomparability arising from data
28. Access to ICT services (internet, mobile phone)	Ownership of mobile phone is one of the assets in the Asset indicator



**East African Community Secretariat
EAC Close, off Afrika Mashariki Road
P.O Box 1096
Arusha, United Republic of Tanzania
Tel: +255 (0) 27 216 2100
Fax: +255 (0) 27 216 2190**