MULTIDIMENSIONAL CHILD POVERTY IN RWANDA
KEY TRENDS AND POLICY IMPLICATIONS
Multidimensional Child Poverty in Rwanda: Key trends and policy implications (summary)

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Why measure multidimensional child poverty?

Rwandan children deprived in single sectors/dimensions

Multidimensionally poor children in Rwanda

Overlapping deprivations

Trends in multidimensional child poverty

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Monetary and multidimensional child poverty

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Summary – key indicators
Why measure multidimensional child poverty?

Ending child poverty is a key commitment of the Government of Rwanda, highlighted in the 2017–2024 National Strategy for Transformation as well as through the government’s strong support to achieve the 2030 Sustainable Development Goals (SDGs).

The SDGs include a specific target on cutting child poverty in half – in both its monetary and multidimensional forms – based on national definitions. The high priority given to addressing child poverty reflects the government’s acknowledgement that multiple deprivations during childhood and adolescence can have irreversible effects, limiting the future opportunities and productivity of Rwanda’s citizens.

Child poverty is rarely differentiated from poverty in general. Building an understanding of the nature of monetary poverty as well as children’s deprivations is critical to adequately address the needs of children through suitable programmes and policies. The Multiple Overlapping Deprivation Analysis (MODA) methodology addresses this by offering a comprehensive and nuanced picture of multidimensional child poverty and complements existing information on monetary-based poverty. This approach further allows for establishing a national baseline for SDG target 1.2. Overall, MODA reveals that 39% of children in Rwanda are considered multidimensionally poor.

Key recommendations:
- Scale up social protection programmes
- Integrate social protection programmes with other basic social services, especially nutrition and water, sanitation and hygiene (WASH)
- Prioritize and target the most vulnerable

39% of children 0–17 years in Rwanda are multidimensionally poor – the SDG target is to reduce this figure by at least half by 2030.
One of the main benefits of MODA is that it allows for different dimensions of poverty to be analysed across the life cycle. Specifically, it accounts for the unique needs of children at different stages of their development, since the basic needs of a 17-year-old young person differ substantially from the needs of a 1-year-old baby. The following four age groups were considered for MODA analysis in Rwanda:¹

- **0–2 years** (0–23 months)
- **3–4 years** (24–59 months)
- **5–14 years**
- **15–17 years**

¹ Two sources of data were used for this analysis: the Rwanda Demographic and Health Survey (DHS) for children under 5 years; and the Integrated Household Living Conditions Survey (EICV) for children aged 5–17 years.
A child in Rwanda is considered multidimensionally poor if she/he is simultaneously deprived in at least three of the dimensions illustrated below. A number of indicators comprise each dimension, and a child is considered to be deprived in a dimension if he or she is deprived in at least one of the indicators of that dimension.

Selected dimensions for each age group under study:

0–2 years
(0–23 months)

- Nutrition
  Not exclusively breastfed, and/or not meeting minimum meal frequency and diversity
- Health
  Birth not attended by skilled person, and/or no mosquito net, and/or no health insurance, and/or not fully vaccinated
- Child protection
  Inadequate care
- Water
  Unimproved drinking water source, and/or long distance to water
- Sanitation
  Unimproved toilet and/or unclean toilet
- Housing
  Indoor pollution from cooking fuel

3–4 years
(24–59 months)

- Health
  Birth not attended by skilled person, and/or no mosquito net, and/or no health insurance, and/or not fully vaccinated
- Child development
  Not attending any early childhood education or preschool (34–59 months), and/or no access to books/toys, and/or low parental engagement
- Child protection
  Inadequate care
- Water
  Unimproved drinking water source and/or long distance to water
- Sanitation
  Unimproved toilet
- Housing
  Indoor pollution from cooking fuel

5–14 years

- Health
  No health insurance and/or long distance to health centre
- Education
  Not attending school and/or not literate
- Water
  Unimproved drinking water source and/or long distance to water
- Sanitation
  Unimproved toilet
- Housing
  Unimproved source of lighting, and/or unimproved disposal of garbage, and/or household affected by environmental destruction

15–17 years

- Health
  No health insurance and/or long distance to health centre
- Education
  Not attending school, and/or not literate, and/or did not complete primary education
- Water
  Unimproved drinking water source and/or long distance to water
- Sanitation
  Unimproved toilet
- Housing
  Unimproved source of lighting, and/or unimproved disposal of garbage, and/or household affected by environmental destruction
Ending child poverty is a key commitment of the Government of Rwanda.
MODA demonstrates, among other things, that children aged 0–23 months are commonly deprived in nutrition (66%), sanitation (64%) and health (54%), whereas children 15–17 years are commonly deprived in housing (63%) and education (58%).

**Deprivations in each dimension, by age group:**

- **0–2 years (0–23 months):**
  - 66% Nutrition
  - 64% Sanitation
  - 54% Health
  - 47% Water
  - 25% Housing
  - 22% Child protection

- **3–4 years (24–59 months):**
  - 64% Sanitation
  - 54% Health
  - 51% Water
  - 42% Child protection
  - 27% Child development
  - 26% Housing

- **5–14 years:**
  - 68% Housing
  - 52% Water
  - 50% Health
  - 15% Sanitation
  - 8% Education

- **15–17 years:**
  - 63% Housing
  - 58% Education
  - 50% Water
  - 47% Health
  - 13% Sanitation
Multidimensionally poor children in Rwanda

Nearly all children aged 0–4 years are deprived in at least one dimension, and more than half of children 0–4 years (55%) are multidimensionally poor (deprived in at least three dimensions).

These multidimensionally poor children are simultaneously deprived on average in 3.8 out of 6 deprivations.

For children aged 5–14 years, nine out of 10 children experience at least one deprivation and 29% are multidimensionally poor – and are on average deprived in 3.2 out of 5 dimensions.

44% of children aged 15–17 years are multidimensionally poor, and face on average 3.5 out of 5 deprivations.
Deprivation distribution, 0–4 years

- 0 Deprivations: National - 5.3, Rural - 3.6, Urban - 14.1
- 1 Deprivation: National - 14.9, Rural - 12.9, Urban - 25.6
- 5 Deprivations: National - 8.0, Rural - 8.8, Urban - 3.9
- 6 Deprivations: National - 1.1, Rural - 1.2, Urban - 0.8

Deprivation distribution, 5–17 years

- 0 Deprivations: National - 10.2, Rural - 6.6, Urban - 30.2
- 1 Deprivation: National - 24.5, Rural - 23.8, Urban - 28.4
- 2 Deprivations: National - 33.3, Rural - 34.8, Urban - 24.5
- 3 Deprivations: National - 23.5, Rural - 25.5, Urban - 12.5
- 4 Deprivations: National - 7.6, Rural - 8.2, Urban - 4.0
- 5 Deprivations: National - 0.9, Rural - 1.0, Urban - 0.5
MODA highlights the need to concentrate on the most vulnerable children, especially those suffering overlapping deprivations (simultaneously deprived in several dimensions), where a deprivation in one dimension can compound the effects of deprivations in another (for example sanitation and nutrition).

Analysing the overlapping deprivations is of particular importance for Rwanda’s policy and programme design, given the country’s existing multi-sectoral approach to combating poverty and addressing child vulnerability. The Venn diagrams on page 10 show that:

Most children face multiple and overlapping deprivations. In the younger age groups, deprivations in health, sanitation, water and nutrition often overlap; in the older age groups the most frequent overlaps occur between health, water, housing and education. Very few children in Rwanda are deprived in only one dimension of well-being – for example just 5% of children age 0–23 months are deprived in health only. The majority of children deprived in health are also deprived in another dimension.

Most children aged 0–23 months are deprived in nutrition and sanitation (66% and 63%, respectively), and 27% of children aged 0–23 months are simultaneously deprived in the three dimensions of nutrition, health and sanitation.

Health, sanitation and water overlaps are common among children aged 24–59 months – 20% are simultaneously deprived in these three dimensions.

Housing, water and health dimensions contribute the most to the deprivation overlap (20%) for children aged 5–14 years. Over two thirds (68%) of the children are deprived in housing and around half face deprivation in water and/or health.

For the oldest age group (15–17 years), 22% are deprived in education, water and housing.

2 The combinations of deprivations that are experienced simultaneously are best presented using Venn diagrams. A Venn diagram of any combination of three dimensions shows the deprivation levels for: (1) each dimension separately; (2) the overlap between two dimensions; and (3) the overlap between three dimensions.
Deprivation overlap between nutrition, health and sanitation, 0–23 months

- Non-deprived (8.1%)
- Nutrition (66.2%)
  - Nutrition only (13.4%)
  - Nutrition and health (9.7%)
- Health (53.2%)
  - Health only (5.4%)
  - Health and sanitation (11.5%)
- Sanitation (63.4%)
  - Sanitation only (8.8%)
  - Health and sanitation (16.5%)
- Overlap (26.6%)

Deprivation overlap between water, health and sanitation, 24–59 months

- Non-deprived (12.2%)
- Health (53.5%)
  - Health only (7.6%)
  - Health and water (18.4%)
- Water (49.7%)
  - Water only (8.6%)
  - Water and sanitation (13.6%)
- Sanitation (63.8%)
  - Sanitation only (11.9%)
- Overlap (19.9%)

Deprivation overlap between water, health and housing, 5–14 years

- Non-deprived (11.5%)
- Health (48.3%)
  - Health only (5.9%)
  - Health and water (7.8%)
- Water (52.0%)
  - Water only (7.2%)
  - Water and housing (16.6%)
- Housing (67.8%)
  - Housing only (16.6%)
  - Health and housing (14.2%)
- Overlap (20.4%)

Deprivation overlap between water, education and housing, 15–17 years

- Non-deprived (11.6%)
- Education (57.9%)
  - Education only (9.7%)
  - Education and water (10.0%)
- Water (50.1%)
  - Water only (6.1%)
  - Water and housing (12.5%)
- Housing (62.6%)
  - Housing only (11.9%)
  - Education and housing (16.7%)
  - Education and water (14.2%)
- Overlap (21.5%)
MODA highlights the need to concentrate on the most vulnerable children, especially those suffering overlapping deprivations.
Multidimensional child poverty has significantly reduced in recent years. The most significant reduction is in health deprivations, particularly for the 24–59 month age group. Multidimensional poverty has also declined for the 5–14 year age group, with the largest improvement being in housing (due particularly to improved lighting).
However, the proportion of extremely multidimensionally poor children (deprived in all dimensions) aged 0–23 months has remained stagnant at just under 6%. The average intensity of deprivations for multidimensionally poor children aged 0–4 years did not change between 2010 and 2014/15 – implying that multidimensionally poor children remain equally vulnerable in 2014/15 as in 2010.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>2010</th>
<th>2014/15</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition, health and water</td>
<td>24%</td>
<td>18%</td>
<td>6%</td>
</tr>
<tr>
<td>CHILDREN SUFFERING NO DEPRIVATION</td>
<td>7%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Health, water and sanitation</td>
<td>35%</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>CHILDREN SUFFERING NO DEPRIVATION</td>
<td>1%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Health, water and housing</td>
<td>28%</td>
<td>20%</td>
<td>8%</td>
</tr>
<tr>
<td>CHILDREN SUFFERING NO DEPRIVATION</td>
<td>8%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Education, water and housing</td>
<td>33%</td>
<td>22%</td>
<td>11%</td>
</tr>
<tr>
<td>CHILDREN SUFFERING NO DEPRIVATION</td>
<td>6%</td>
<td>12%</td>
<td></td>
</tr>
</tbody>
</table>
Which children are most affected by multidimensional child poverty?

**Urban/rural – provinces:** There are notable disparities in child poverty based on geographical locations across all age groups. Children from rural areas, particularly those in Southern and Western provinces, lag behind children in urban areas. Of children aged 0–23 months living in rural areas, 61% experience multiple deprivations, compared to 38% in urban areas. Likewise, deprivation rates are significantly higher for children aged 5–14 years living in rural areas (32%) than for children in urban areas (16%). Of children aged 15–17 years, 50% are multidimensionally poor in rural areas vs. 22% in urban areas.

However, the average intensity of deprivations among deprived children in Kigali (average 3.5 deprivations) is similar to the average intensity of deprivations among children in other areas. This implies that the multidimensionally poor children in Kigali, though they are fewer, are almost as poor as the multidimensionally poor children of the other provinces.

**Female-headed households:** There is higher multidimensional child poverty in female-headed households than in male-headed households.

**Education level of household head/mother:** Higher levels of education of the mother and of the household head are associated with considerably lower levels of multidimensional child poverty.
Monetary and multidimensional child poverty

It is important to recognize that a child can be multidimensionally poor even if they live in a relatively well-off household.

In Rwanda, 13% of children aged 5–17 years are deprived in at least three dimensions of well-being despite living in monetarily non-poor households. These households are not poor according to the national poverty line but they may not be able to meet their children’s needs for other reasons. Access to financial resources, although a strong predictor, does not automatically lead to lower multidimensional poverty among children in the Rwandan context.

Although a higher proportion of monetarily poor children are deprived in all dimensions, 26.5% of children living in monetarily poor households are not multidimensionally poor.

The fact that more than one in four children living in households classified as income-poor are not multidimensionally poor indicates the positive impact of government efforts to improve access to basic services to poor populations.

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3 The overlap between monetary and multidimensional poverty is done only for children aged 5–17 years because data on monetary poverty for under-five children is not available.

4 In order to understand better this phenomenon, more detailed analysis might be required given that a number of households categorized as non-poor could be just slightly above the poverty line.
Multidimensional child poverty and social protection

Social protection is a key strategy for poverty reduction in Rwanda, in particular the Vision 2020 Umurenge Programme (VUP). The MODA analysis of the VUP support highlights that children living in extreme monetary poverty face fewer deprivations if supported by the VUP social protection programme. Thirty two per cent of children living in extremely monetarily poor households who receive VUP support are multidimensionally poor, versus 47% in households which do not receive VUP support.

Children living in monetary poor households, with or without VUP support

- **Household receiving VUP support**
- **Households not receiving VUP support**

5 VUP includes Direct Support, Public Works and Financial Services for the poorest households in Rwanda.
Recommendations

Analysing the overlap between monetary and multidimensional poverty highlights the fact that, although it is an important indicator, the national poverty line alone may not be an adequate indicator of child poverty in Rwanda. The trend analysis shows that multidimensional child poverty has significantly reduced in recent years, demonstrating that the current policy and programming trajectory in Rwanda is on the right track. MODA analysis resulted in a number of recommendations aimed at further reducing multidimensional poverty of Rwanda’s children:

**Scale up VUP social protection programmes**
- The government’s VUP social protection programme has clear potential to reduce the number of deprivations children face: it should be further scaled up to support access to social services for underserved child populations and their families. This priority is further stressed by the trend analysis that shows little improvement in the lives of extremely deprived children (deprived in all dimensions) in recent years.

**Integrate VUP social protection with other basic services, especially nutrition and WASH**
- A strategy to address child poverty must be multisectoral, as most children face multiple, overlapping deprivations. VUP social protection income-support interventions should be further combined with sector-specific interventions that address deprivations directly, particularly nutrition and WASH.
- Since the majority of children experience multiple overlapping deprivations, tackling multidimensional poverty through combined policies can minimize programme costs and optimize efficiency.

**Prioritize the most vulnerable:**
- MODA highlights the profiles of the poorest and most vulnerable children, who should be prioritized in policy and programme implementation. Children living in rural areas, particularly in Southern and Western provinces, are the most vulnerable in all dimensions. MODA analysis further solidifies the commonly known drivers of child poverty – living in rural locations, low education levels of household heads and belonging to a female-headed or single mother household – and last, but not least, monetary poverty.
- Children in the younger age groups are particularly vulnerable (57% of children aged 0–23 months are multidimensionally poor). The current government emphasis on the first 1,000 days and the increased emphasis on integrated early childhood development and nutrition services is given further weight by the MODA results.
## Summary – key indicators

<table>
<thead>
<tr>
<th>Multidimensional child poverty (deprived in 3+ dimensions)</th>
<th>0–23 months</th>
<th>24–59 months</th>
<th>5–14 years</th>
<th>15–17 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multidimensional child poverty (deprived in 3+ dimensions)</td>
<td>57%</td>
<td>54%</td>
<td>29%</td>
<td>44%</td>
</tr>
<tr>
<td>Children deprived in 1+ dimension</td>
<td>96%</td>
<td>94%</td>
<td>89%</td>
<td>91%</td>
</tr>
<tr>
<td>Children deprived in 2+ dimensions</td>
<td>81%</td>
<td>79%</td>
<td>64%</td>
<td>73%</td>
</tr>
<tr>
<td>Children deprived in 3+ dimensions</td>
<td>57%</td>
<td>54%</td>
<td>29%</td>
<td>44%</td>
</tr>
<tr>
<td>Children deprived in 4+ dimensions</td>
<td>30%</td>
<td>27%</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>Children deprived in 5+ dimensions</td>
<td>11%</td>
<td>8%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Children deprived in 6 dimensions</td>
<td>2%</td>
<td>1%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Rural multidimensional child poverty</td>
<td>61%</td>
<td>57%</td>
<td>32%</td>
<td>50%</td>
</tr>
<tr>
<td>Urban multidimensional child poverty</td>
<td>38%</td>
<td>37%</td>
<td>16%</td>
<td>22%</td>
</tr>
<tr>
<td>Western Province – multidimensional child poverty</td>
<td>68%</td>
<td>64%</td>
<td>30%</td>
<td>47%</td>
</tr>
<tr>
<td>Southern Province – multidimensional child poverty</td>
<td>64%</td>
<td>61%</td>
<td>37%</td>
<td>52%</td>
</tr>
<tr>
<td>Northern Province – multidimensional child poverty</td>
<td>59%</td>
<td>55%</td>
<td>24%</td>
<td>43%</td>
</tr>
<tr>
<td>Eastern Province – multidimensional child poverty</td>
<td>51%</td>
<td>49%</td>
<td>29%</td>
<td>46%</td>
</tr>
<tr>
<td>Kigali – multidimensional child poverty</td>
<td>35%</td>
<td>31%</td>
<td>20%</td>
<td>23%</td>
</tr>
</tbody>
</table>

| Average number of deprivations multidimensionally poor children face – national | 3.8 (out of 6 dimensions) | 3.7 (out of 6 dimensions) | 3.2 (out of 5 dimensions) | 3.5 (out of 5 dimensions) |
| Average number of deprivations multidimensionally poor children face – rural | 3.8 (out of 6 dimensions) | 3.7 (out of 6 dimensions) | 3.2 (out of 5 dimensions) | 3.5 (out of 5 dimensions) |
| Average number of deprivations multidimensionally poor children face – urban | 3.6 (out of 6 dimensions) | 3.5 (out of 6 dimensions) | 3.2 (out of 5 dimensions) | 3.4 (out of 5 dimensions) |

| Common deprivation overlaps – national | 27% nutrition, health and sanitation | 20% health, water and sanitation | 20% health, water and housing | 22% education, water and housing |
| Common deprivation overlaps – rural | 29% nutrition, health and sanitation | 21% health, water and sanitation | 22% health, water and housing | 24% education, water and housing |
| Common deprivation overlaps – urban | 16% nutrition, health and sanitation | 14% health, water and sanitation | 12% health, water and housing | 12% education, water and housing |

| Multidimensional deprivation index (M0) | 0.36 | 0.35 | 0.19 | 0.31 |
| Multidimensional deprivation index (M0) – rural | 0.38 | 0.33 | 0.20 | 0.34 |
| Multidimensional deprivation index (M0) – urban | 0.23 | 0.22 | 0.10 | 0.15 |
| Multidimensional child poverty in 2010 | 60% | 48% | – | – |
| Multidimensional child poverty in 2014/15 | 51% | 32% | – | – |
| Multidimensional child poverty in 2010/11 | – | – | 39% | 60% |
| Multidimensional child poverty in 2013/14 | – | – | 29% | 44% |

For the full Multidimensional Child Poverty report visit:  
- https://www.unicef.org/rwanda/events_21569.html