



Evidence on inequalities in Rwanda

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Question

What does the evidence show about inequalities in Rwanda, including inequalities by income, consumption, access to basic services and opportunities as well as social inequality? What are the evidence gaps? How does Rwanda compare to regional neighbours on these various dimensions?

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1. Overview

Inequality refers to disparities between individuals (**vertical inequalities**) or groups (**horizontal inequalities**) in areas such as **income, wealth, education, health, nutrition, space, politics and social identity** (Rohwerder 2016). Intersecting inequalities occur when people face inequality in multiple, overlapping, spheres of their lives. Inequality is most commonly understood as either **inequality of outcomes** (differences in what people achieve in life, for example, level of income) or **inequality of opportunities** (differences in people's background or circumstances that condition what they are able to achieve).

Measuring inequality can be complex, because of multiple understandings of what inequality is and varying approaches to measuring it. The common approaches focus on measures of financial inequality (consumption, income or wealth) (Rohwerder 2016). Critics argue that monetary measures fail to capture inequalities beyond material standards of living, and suggest that measuring living standards is key. Approaches to this include indicators for **the distribution of education and health** although these are less developed than income-based measures of inequality (Peterson, 2014).

The body of evidence around inequality in Rwanda is mixed, both in terms of scope and coverage and quality. It is also characterised by competing narratives about whether or not inequality is declining or not (Behuria and Goodfellow 2016: 3). This reflects, in part, the inherently complex nature of inequality, how it is measured, and different approaches to gathering data.

This review identifies and reviews the evidence on inequalities in Rwanda. Undertaken in six days, it draws primarily on national Rwandan datasets and smaller-scale case studies from academic research. This study focuses primarily on quantitative datasets and sources, supplemented by some qualitative research. A related report by Carter (2018) which examines the relationship between inequality, exclusion and poverty in Rwanda, also provides insights from key qualitative studies.

Key findings include:

- There is a limited body of disaggregated data on inequalities in Rwanda (Dawson 2018). The key quantitative datasets that illuminate inequality in Rwanda have been collected by the National Institute of Statistics of Rwanda (NISR). These are based on large-scale household surveys carried out every few years and contain a basic level of disaggregation. Although NISR data has been described by Ansoms et al (2018) as reliable, cautions are raised over sole reliance on data from large-scale household surveys since macro-level data can obscure the lived experiences of vulnerable groups (including the poorest, women, historically marginalised people and the disabled).
- There is also a significant body of smaller scale, in-depth research carried out in various geographic locations and on a range of development topics. Whilst these are not intended to be nationally representative, they can add important depth of understanding to the national picture of inequality.
- Commonly used standard indicators to measure poverty and inequality don't always resonate with experiences of poverty and wellbeing of local communities (including women and historically marginalised people), particularly in rural areas (Dawson 2018). It has been proposed that newer measures are needed to capture their lived experiences

(Dawson 2018; Abbott and Malunda 2014). There is growing interest in measures that capture subjective dimensions of wellbeing.

- Existing evidence shows that inequality measured by financial indicators (income/ consumption) rose in Rwanda between 2000 and 2005/06, but declined from 2005/06 until 2013/14. Despite this, inequality in Rwanda remains the highest in East Africa measured by a range of indicators (Gini coefficient, Palma ratio).
- Inequality measured by access to basic services such as health, education, water, sanitation and electricity shows improvements over the past two decades. Health outcomes and access to health have improved for many groups, although rural and regional disparities remain. Access to healthcare is also determined by wealth.
- Enrolment in primary and secondary education has grown and gender gaps narrowed – in some cases, girls' enrolment is higher than boys. Urban-rural divides appeared in both attendance and completion rates. Notable disparities were also identified between the lowest and highest quintiles. Enrolment and completion rates for higher education decline across all groups.
- Inequalities in access to the labour market were also identified, with variation across contexts. For example, youth unemployment is an urban phenomenon, whilst gendered inequalities strongly shaped the rural labour market.
- Other factors that affect economic empowerment include distribution of land and financial assets. These are both shaped by gendered inequalities and vary by location (urban/ rural) and region as well as wealth quintile.
- There have been improvements in access to utilities over the past two decades. The survey also found that the lowest quintile made particular significant gains in access to both water and sanitation between 2011 and 2013/14, whilst the wealthiest quintile benefitted the most from increased access to electricity.

This study identified some evidence gaps:

- There is a need for more detailed disaggregated data. For example, many of the existing large-scale datasets do not easily illuminate intersecting inequalities.
- There is very limited empirical work attempting to understand the structural causes of inequality in Rwanda, which has resulted in a poor understanding of inequality trends (Finnoff 2015: 209).
- The quantitative data often neglects people with disabilities, migrants/ refugees, the poorest and historically marginalised people. There is also limited data on the social inequalities experienced by different ethnic groups (Hutu, Tutsi, Twa). This is complicated by the challenges in speaking about ethnicity in Rwanda.
- There is a need for research that takes into account the heterogeneity of the Rwandan poor, in order to better understand rural poverty and inequality (Ansoms and McKay 2010).
- Although there exists a body of evidence comparing Rwanda's progress on inequality with its East African neighbours, the data this draws on is dependent on the quality of national data from each country. SID (2016) suggests this needs to be strengthened.

2. Quantitative and qualitative research

Debates persist on whether income inequality in Rwanda is decreasing or not (Behuria and Goodfellow, 2016: 3). NISR (2015) reports a decline from 0.522 in 2005/06 to 0.448 in 2013/14 of the Gini co-efficient. World Bank (2017) shows a more modest decline from 0.52 in 2005, 0.513 in 2010, and 0.504 in 2013. Significant differences have been observed between large-scale household level survey data and qualitative fieldwork intended to capture people's lived experiences (McKay and Verpoorten 2016: 31; Ansoms et al 2016: 2; Dawson 2018: 10). Reasons for this divergence are examined below.

Quantitative datasets, based on large-scale household-level surveys, have been described as 'robust' (Ansoms et al 2016: 2) and 'reliable' (Ansoms et al 2018: 4). Moreover, they are easily available since the Government of Rwanda has undertaken 'significant and laudable efforts to make their datasets publicly available' (Ansoms et al 2018: 3). Despite this, a number of concerns have been raised about this type of data (Jerven 2013, 2014; Sandefur and Glassman 2015; Ansoms et al 2016, Desiere 2016; Dawson 2018).

First, the cost for carrying out large-scale national research is high, which prevents it being done annually (Ansoms et al 2016: 2). Additionally, strict government controls on the generation of large-scale datasets have called into question the independence of their findings (Ansoms et al 2018: 5). The context – including political context - in which the data is collected is key ((Ansoms et al 2016: 4; McKay and Verpoorten 2016: 22). This is because, while research studies are often presented as apolitical, their results are political significant. This is particularly the case when international donor support is determined based on these (Ansoms et al 2016: 4). Therefore, Ansoms et al (2016:4) argue that 'statistical data and their interpretations should be analysed in light of the political stakes involved'.

Moreover, national-level aggregated statistics can be misleading as they present only a partial picture of inequality and poverty in Rwanda (Ansoms et al 2016: 6; Ansoms et al 2018: 13). This is because macro-level, aggregate performance indicators don't adequately reflect people's lived experiences (Ansoms et al 2018: 2). There are several reasons for this. One is the paucity of disaggregated data analyses (Dawson 2018: 2), with only a handful of studies that disaggregate the Rwandan population in detail (Ansoms and McKay 2010; WFP 2012; Finnoff 2015). According to Dawson (2018: 2), 'the few studies that disaggregate the Rwandan population in some detail reveal that levels of inequality are high.' Quantitative household data can under-represent vulnerable groups, particularly the 'poorest of the poor' (Carr-Hill 2014: 136). In the case of Rwanda, this includes the homeless and mobile populations or those living illegally in Kigali slums (Ansoms et al 2016: 7), women (Ansoms et al 2018) as well as historically marginal people (Dawson 2018). The prevalence of 'response effects' have also been noted; in other words respondents' reluctance to answer certain questions or tendency to give strategic responses, particularly around consumption and income estimates (Ansoms et al 2016, 2018).

Questions have also been raised about the relevance of indicators typically used in research on poverty and inequality. Dawson (2018: 10) suggests that 'standard measures of poverty based on income, consumption or even broader measures... fail to reflect even material factors that are crucially important to the lives and wellbeing of rural Rwandans.' Differences have also been observed between material and subjective indicators of well-being. Dawson (2018: 5) notes that improvements in provision of services such as education, health and water did not match with perceptions of improved trajectories in poverty and wellbeing amongst rural Rwandans. For

example, although education is a commonly used normative indicator, its importance was not reflected by the respondent's in his own study. Instead, they prioritised land and livestock, which do not often feature in standard poverty indicators.

Ansoms et al (2018: 19) and others have argued the need for research on poverty and inequality in Rwanda that 'move beyond accepting large-scale surveys at face value'. Critiques of national large-scale household surveys, however, are not an argument against using them to understand inequality. Instead, they serve as a reminder that national-level aggregate data should be supplemented, and cross-checked, with other types of research. Ansoms et al (2010: 585) suggest that in-depth qualitative research can enable a higher degree of complexity to be captured than in research based solely on quantitative analysis. Additionally, mixed-methods studies cover a wide variety of settings and regions; when combined they take on geographical relevance. Moreover, despite their differences in analytical focus, common themes emerge from these which can shed light on lived experiences of inequality.

3. Evidence on inequalities in Rwanda

Consumption and income inequality

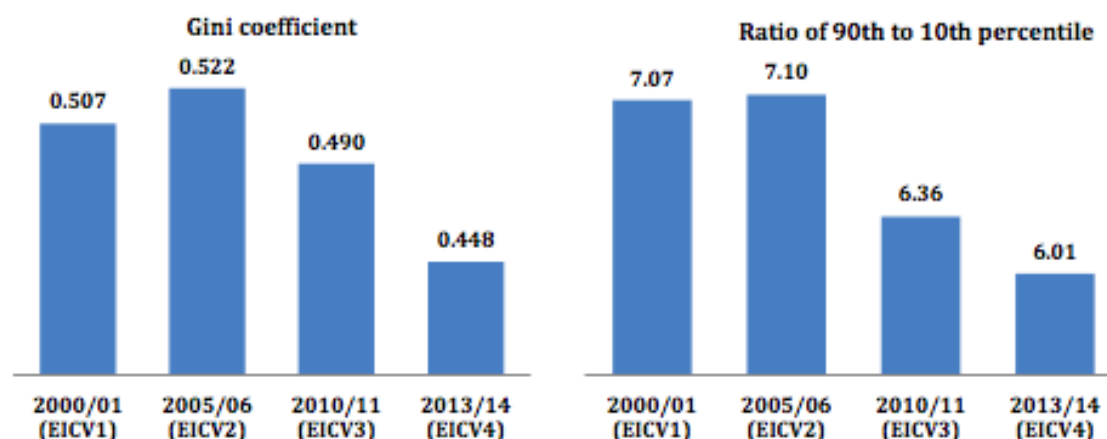
The **Integrated Household Living Survey (EICV)**¹ is carried out approximately every five years by the National Institute of Statistics of Rwanda (NISR)². It provides information on monetary poverty measured in consumption expenditure terms³. The NISR (2015: 25) indicates that consumption inequality fell between 2005/06 and 2013/14. This is illustrated by a decline in both the Gini coefficient and Ratio of 90th to 10th percentile (although these rose between 2000/01 and 2005/06).

¹ In addition to measure consumption poverty, EICV provides data on health (nutrition and mortality); education (attendance, literacy); access to water, sanitation, energy; asset ownership; extreme poverty, disaggregated by gender, province and/ or consumption quintile.

² Existing data is available for 2000 through 2015 from four separate EICV surveys.

³ Specific concern has been raised about the methodology NISR used to recalculate the poverty line for EICV4 and the impact of this on the comparability of EICV4 research with previous EICV data (Ansoms et al 2016: 6).

Table 1: Evolution of inequality measures over time: EICV1-EICV4



Source: NISR (2015: 25)

The EICV survey also disaggregates the Gini coefficient by region. This suggests that, whilst consumption inequality declined overall between 2005/06 and 2010/11 (0.522 to 0.490), it rose slightly in Northern Province (from 0.431 in 2005/06 to 0.438 in 2010/11) (NISR 2015: 41).

Table 2: Evolution of inequality (Gini coefficient) in Rwanda by province

	2000/01	2005/06	2010/11
Rwanda	0.507	0.522	0.490
Kigali city	0.559	0.586	0.559
Southern Province	0.425	0.446	0.373
Western Province	0.445	0.492	0.395
Northern Province	0.457	0.431	0.438
Eastern Province	0.403	0.436	0.362
Ratio of 90 th to 10 th percentile	7.066	7.1	6.36

Source: NISR 2015: 41

The international measure of the overall Gini ratio also shows a decline – though more modest, from 0.52 in 2005, 0.513 in 2010, and 0.504 in 2013⁴. Data based on the Palma ratio (2006-2011) echoes the downward trend for inequality⁵ (SID 2013:20). Still, in 2011, the richest 10% of Rwandans earned 3.2 times the income of the poorest 40% (SID 2013: 83).

The World Bank's 2015 poverty assessment (Bundervoet et al 2015) notes that Rwanda's high inequality is driven, in part, by location. It is substantially higher in urban areas (Gini of 58) than in rural areas (Gini of 40). According to Bundervoet et al (2015: 16), 'differences in consumption between households in urban and in rural areas [explain] almost a quarter of total inequality' (ibid).

⁴ Data downloaded 22 June 2018: <https://data.worldbank.org>

⁵ The Palma ratio is the ratio of the richest 10% of the population's share of gross national income divided by the share of the poorest 40%. For Rwanda, this was 3.22 in 2011.

Bundervoet et al (2015: 16) also highlight the unequal distribution of consumption in Rwanda, noting that 'the bottom 10% of the population accounts for two% of total consumption, 20 times less than the share captured by the top 10% (42%)'. Consumption growth over the past decade has been higher for poor households than for non-poor households, resulting in declining inequality (Bundervoet et al 2015: 17). There was a slight increase in inequality in Kigali, however, due to slow growth of the middle class compared to the growth recorded by both the poor and the rich (Bundervoet et al 2015: 32).

Inequality in access to basic services and opportunities

Access to healthcare

Healthcare reforms in Rwanda have enabled notable achievements in improved access and health outcomes over the past two decades. Life expectancy increased (from 50 in 2000 to 64.5 in 2010) (Stavropoulou and Gupta-Archer 2017: 23). Infant mortality has declined from 107 deaths per 1,000 live births in 2000 to 32 in 2014/15; under 5 mortality has declined from 196 to 50 during the same period (NISR 2016d: 105). Maternal mortality ratios⁶ declined from 1,071 (in 2000) to 265 (in 2014/15) (NISR 2016d: 265).

The government's community health insurance scheme (*Mutuelles de Sante*) is estimated to cover 91% of the population (compared with formal health insurance which is estimated to cover 6% of the population) (WHO, 2014). Access to healthcare grew from 31% in 2003 to 95% in 2010. Nevertheless, challenges remain. For instance, a mixed methods study on the persistence of social inequalities by Dawson (2018: 7) finds a decline in material wellbeing for rural Rwandans, resulting in '41% of those interviewed [being] unable to afford health insurance and access health care, despite improved proximity to these services and almost one-fifth of households having medical insurance costs waived by the government.' Similarly, a review of the evidence of girls' capabilities in Rwanda, indicates that although 71.5% of girls (aged 15-19) are covered by health insurance, 55% still experience problems accessing healthcare (Stavropoulou and Gupta-Archer 2017: iv).

EICV4 reports improvements in access to health centres, notably in rural areas. Nevertheless, it also suggests that access to healthcare varies by location and wealth. Households in the lowest consumption quintiles report longer travel times, 'having to walk for at least an hour to reach the closest health centre, market or bus stop'; of households in the top quintile, fewer than 30% face similar challenges (Stavropoulou and Gupta-Archer 2017: 23). Despite this, similar satisfaction levels with regards to healthcare reported across socio-economic groups (NISR 2015c: 25).

Stunting – when children are growing too slowly – is considered an indicator of how inequalities shape the distribution of deprivations and outcomes (World Bank, 2018: iv). While stunting has declined nationally, from about 50% (2005) to 38% (2014/2015) of children under 5, the poor are disproportionately affected. Stunting rates are higher in rural Rwanda than other parts of the country (ibid:17-18). The prevalence of stunting is higher among children living in the poorest households (49%) than among children in the richest households (21%). It is also higher among children whose mothers have no education (47%) than among those whose mothers have a

⁶ The maternal mortality ratio - the age-standardized maternal mortality rate divided by the age-standardized general fertility rate - is considered "a more useful indicator of maternal mortality because it measures the obstetric risk associated with each live birth" (NISR 2016d: 264).

secondary education or higher (19%) (NISR 2016d: 148). NISR (2016d: 148) identifies nutritional variation across the regions, with stunting being highest in West (45%) and lowest in the City of Kigali (23%). A study by the World Food Programme (2012) on food insecurity and vulnerability finds that both risks of food insecurity and stunting are exacerbated by socio-economic status and gender inequalities.

Access to education

EICV4 indicates that **education outcomes** improved between 2011 and 2014. Net attendance in secondary education increased (from 17.8% to 23%) attendance in tertiary education almost doubled (from 1.7% to 3%) (NISR 2015: v). Literacy has also improved from 74.9% to 77.8%. However, net attendance in primary education dropped slightly to 87.9%. (NISR 2015: v). A regional breakdown indicates, that net primary attendance grew slightly in all regions, except for Kigali City where it declined, between EICV2 and EICV4. In the World Bank's (2012) Social Safety Net Assessment, Kamurase et al (2012: 13) find that children in the bottom consumption quintile exhibit enrolment rates that are nearly ten percentage points lower than the richest. The data indicates that although basic primary education is free of charge, some children start late and drop out early. Kamurase et al (2012: 3) argue that 'disparities across socio-economic groups suggest that there are still important financial barriers to allow children to complete primary' (ibid).

Net secondary attendance rose most significantly in Kigali City, but more slowly in every other region. Secondary attendance saw much higher increase in the highest than lowest wealth quintile during this same period. EICV4 indicates that, amongst youth, literacy rates are similar between males (81.2%) and females (81.7%). They are higher in urban areas. In the lowest wealth quintile, the literacy rate is slightly higher for males (69.3%) than females (67.0%); in the highest quintile, this trend is reversed, with 89% for males and 91.6% for females (NISR 2015: 10).

Table 3: Primary and secondary education attendance rates (EICV2 – EICV4)

	Net Attendance Ratio- Primary			Net Attendance Ratio- Secondary			Literacy rate among people aged 15-24		
	EICV4	EICV3	EICV2	EICV4	EICV3	EICV2	EICV4	EICV3	EICV2
Rwanda	87.9	89.6	86.6	23.0	17.8	10.4	86.1	83.1	76.9
Province									
Kigali City	90.6	90.6	92.0	36.9	36.5	24.6	93.7	88.6	86.6
Southern	86.6	89.2	85.7	19.9	14.9	8.8	84.9	80.9	77.0
Western	87.2	89.2	85.0	19.9	16.4	8.8	85.1	82.9	75.7
Northern	91.7	93.3	89.2	24.2	16.5	7.3	87.1	83.9	76.2
Eastern	86.5	86.9	85.0	21.3	15.9	10.6	83.3	82.2	73.9
Urban/rural									
Urban	91.2	92.4	90.9	38.9	36.6	21.1	92.4	89.0	84.7
Rural	87.4	89.1	85.8	19.3	14.1	8.3	84.4	81.8	75.1
Quintile									
Q1	82.2	84.3	79.9	10.1	6.7	2.2	77.8	74.9	66.3
Q2	87.8	89.9	86.3	16.3	9.5	5.6	84.5	80.2	72.9
Q3	89.2	90.7	88.1	20.2	14.8	9.3	86.0	83.1	77.2
Q4	91.2	91.5	89.8	27.6	21.1	14.2	88.0	85.4	80.3
Q5	92.5	93.5	91.2	39.8	34.8	21.3	91.4	88.4	84.2

Source: NISR, EICV2, EICV3, EICV4

Source: NISR 2015: 10

Drawing on 2014 **Rwanda Demographic and Health Survey (RDHS)** data⁷, the **World Inequality Database on Education (WIDE)** illustrates educational inequalities through basic aggregations of gender, location (urban/ rural), region and wealth quintile (although it does not show overlaps between these)⁸. It indicates significant differences in attendance and completion rates by location, region and wealth quintile in primary, secondary and higher education. Gender gaps also exist, but are less wide; in some cases - for example, primary enrolment and completion - girls score better than boys. Urban-rural divides appeared in both attendance and completion rates, with 8% of rural Rwandan children having never attended school, compared with 3% of urban children (Kigali City had the lowest rate at 4% and East Province the highest at 10%). Overall, 14% of the poorest children had never attended school, compared with 3% of the richest. Girls had a lower rate (5%) of non-attendance than boys (9%).

Primary completion rates were also lower in rural Rwanda (47%) than urban (68%). Regional differences were present; South Province had the lowest rates of completion (46%) compared with Kigali City (67%). The wealth quintile showed even starker differences, with only 27% of the poorest completing primary, compared with 71% of the richest. Girls had higher primary completion rates (54%) than boys (48%) (based on RDHS 2014 data drawn from WIDE).

Upper secondary completion rates also show a significant rural-urban divide (9% rural, 34% urban). The highest rates secondary completion rates were recorded for Kigali City (33%); the lowest in the East (10%). Reflecting education completion rates more widely, there was a significant divide by wealth quintile: Only 2% of the poorest completed secondary, compared with

⁷ RDHS surveys are carried out every four to five years. Data has been collected between 1992 and 2014/15 on a broad range of demographic, health, and social issues, including maternal and child health, early childhood mortality, maternal mortality, nutritional status of women and young children (NISR 2016d). See <http://www.statistics.gov.rw/datasource/demographic-and-health-survey-dhs>

⁸ See <https://www.education-inequalities.org/countries/rwanda/#?dimension=all&group=all&year=2014>

38% of the wealthiest. The secondary completion rate dropped for men and women, and women scored lower than men (13% female; 16% male) (based on RDHS 2014 data drawn from WIDE).

Higher education attendance fell across categories, but were lowest for the rural population (1% than urban (7%). Similar male/ female rates were recorded (both 2%). East (0%), North (1%), South (1%), West (2%) and Kigali City (7%). This also corresponds to wealth quintiles (0% of the poorest, 6% of the wealthiest) (RDHS 2014 data from WIDE). Tertiary completion rates⁹ confirmed a rural-urban gap (rural 3%; urban 17%). These were higher in Kigali City (16%) than the regions (the North recorded the lowest rate at 3%). 0% of the poorest completed 2 years of tertiary education, compared with 20% of the wealthiest. The rate was slightly lower for women (5%) than men (7%) (based on 2014 RDHS data drawn from WIDE).

Access to economic empowerment

EICV4 finds that the labour force participation rate (which, it suggests, reflects the extent to which a country's working age population is economically active) was 87.4%, an increase of 4% over EICV3. This was lower in urban areas (79%) than rural areas (89%), and lowest in Kigali City (70%) compared to other provinces (NISR 2016f: v-vi). The relatively low urban rate is attributable to the predominance of agricultural employment in rural areas and higher unemployment and school attendance in urban areas (ADB 2014: 1).

EICV4 data suggests that unemployment affects young people (aged 16-30) more than adults. The unemployment rate in urban areas (9%) was significantly higher than the national level (2%). As Kigali City province is dominated by urban areas, its unemployment rate (11%) is by far higher than the unemployment rates at national and provincial levels. The unemployment rate among women (16%) is more than double that of men (6.5%). According to Stavropoulou and Gupta-Archer (2017: iii), youth unemployment is a particularly 'urban phenomenon'. In Kigali it affects secondary school and university graduates, 'particularly females' (ibid). EICV4 also provides data on underemployment; 31% of Rwandans were considered underemployed in 2013/14. People working for wage in farming activities were the most underemployed (41%), followed by independent farmers (38%).

A mixed-methods study by Bigler (2017) on the rural labour market, wage gap and care penalty finds that access to land and gender shapes inequalities within the rural Rwandan labour market. The empirical results show that wage employment is created almost exclusively in the informal sector, typically for casual on-field agriculture workers. A wage gap in this segment was identified, indicating that, for the same work, women earned approximately 20% less than men. Women play an important role in the rural labour market while carrying the main bulk of reproductive work. This (unpaid) care work served as a barrier to finding paid employment. ADB (2014) analysis of EICV3 data (2010/11) suggests that although women account for more than half of Rwanda's workers, men are more likely to be engaged in waged employment. Crucially, a large proportion of Rwandan women 'work without pay' (ADB 2014: 1) in domestic sphere or informal sector. ADB states that 'among youth, males and females have nearly similar wage earnings, but males fare better in every other wage category' (ibid). Cultural constraints (linked to women's reproductive roles) create inequalities in access to waged employment.

⁹ Of at least two years of tertiary education.

Ansoms and McKay (2010) point out that ‘the Rwandan ‘poor’ are not a homogenous group nor is the problem of rural poverty a single problem.’ They undertake a quantitative analysis of poverty and livelihoods profiles based on six dimensions (aggregate wealth, human resources, natural resources, quality of location, centrality of location and association networks). Through this, they disaggregate seven types of rural household groups with different livelihoods profiles. Dawson’s (2018) study also sheds light on another group that is often invisible in official statistics, the Batwwa. His study finds that ‘the majority of Batwa were excluded both from their traditional forest dwellings and livelihoods on one hand, and on the other also excluded from the economic diversification and market integration pursued by and promoted for other rural inhabitants’ (Dawson 2018: 12).

Finnoff (2015: 210) notes that ‘there are important changes in “income generating functions” of Rwandan households, and that **distribution of land and financial assets are increasingly important in determining the inter-household distribution of income**’. Land ownership is identified both as an important source of inequality (Finnoff 2015: 225) and a potential threat to stability (Silva Leander 2012: Finnoff 2015: 225; Silva Leander 2012: 234-235). A quantitative research study by Isakkson (2015: 60)¹⁰ examines the existence, and patterns of, inequalities related to land rights. It finds that ‘systematic group inequalities in property rights [to land] protection risk reinforcing existing economic inequalities’. According to Finnoff (2015), land is closely related to consumption income for rural household, and the contribution of land to overall explained inequality was ‘substantial’ for rural households (Finnoff 2015: 225). Gendered inequalities have also been identified in access to land (Isakkson 2015: 61; see also Abbott and Malunda 2014; Stavropoulou and Gupta-Archer 2017). Stavropoulou and Gupta-Archer (2017: iv) note that ‘despite the progressive land laws, traditional beliefs and practices are still major obstacles to female land ownership.’ Isakkson’s study finds the existence of ‘systematic’ inequalities in land rights, with a particularly gendered dimension (Isakkson 2015: 61). Despite recent reform efforts to improve women’s land rights, a gender gap in land rights was observed throughout the period studied. Moreover, conflict-displaced households and households resettled to newly constructed village settlements also reported weaker land rights than their respective comparison groups (ibid).

Finnoff (2015) highlights **access to finance** as an increasingly important determinant of inequality. ‘Whether or not a household member had savings explains a greater proportion of explained inequality in 2005 relative to 2000’ (Finnoff 2015: 226). Stavropoulou and Gupta-Archer (2017: iii) cite ‘low access to credit’ (limited access to start-up capital) as a factor that disadvantages young women in the labour market, noting that although their access to savings and credit remains low, it is improving (ibid: iv). The 2016 NISR FinScope Survey¹¹ tracks access to financial services in both the formal and informal sectors. It finds that 72% of Rwandan adults were financially included, although the majority of these by informal (58%) rather than formal financial mechanisms (42%) (NISR 2016e: 1). NISR (2016e) highlights that while income is one of the strongest determinants of (formal) financial inclusion, income levels vary considerably across the region. Location is also a strong determinant, with (formal) financial inclusion being higher in urban than rural areas (due to better access to infrastructure, physical access to

¹⁰ Key findings from the study draw on data about land tenure arrangements of over 17,000 Rwandan households between 2005-2011.

¹¹ FinScope Survey data is available between 2008-2016 See <http://www.statistics.gov.rw/datasource/finscope-survey>

financial services institutions compared to rural/remote areas, generally higher levels of salaried workers, and lower dependency on irregular income sources such as farming). Overall, it notes a large urban-rural divide in terms of financial inclusion. Those most likely to be financially excluded included the poorest, women, 16-17 year olds and those older than 60, widows, piece-workers and adults without formal education (NISR 2016e: 63).

Access to water, sanitation and electricity

EICV4 data indicates that there have been improvements in **access to water and sanitation** compared with EICV2. The percentage of households using improved sanitation (toilets) grew from 74.5% in 2011 to 83.4% in 2014; during the same period households with access to improved sources of drinking water increased from 74.2% to 84.8%. (NISR 2015: v). The survey also found that the lowest quintile made particular significant gains in access to both water and sanitation during this period.

Table 4: Water and sanitation indicators EICV2 to EICV4

	% of households with access to improved drinking water source			% of households with improved sanitation		
	EICV4	EICV3	EICV2	EICV4	EICV3	EICV2
Rwanda	84.8	74.2	70.3	83.4	74.5	58.5
Province						
Kigali City	84.5	82.7	84.8	93.2	83.3	78.5
Southern	85.8	74.8	73.4	69.5	66.2	56.2
Western	84.5	74.2	67.8	85.4	79.2	57.9
Northern	90.6	78.9	76.7	85.9	74.2	64.6
Eastern	80.6	66.6	57.7	88.4	74.9	48.5
Urban/rural						
Urban	90.0	87.1	83.9	93.5	87.4	74.9
Rural	83.7	71.9	67.6	81.3	72.2	55.3
Quintile						
Q1	81.1	68.4	66.6	70.4	64.7	42.4
Q2	82.1	71.4	66.7	76.9	72.1	51.1
Q3	84.0	71.5	67.2	82.8	71.9	55.6
Q4	85.7	73.2	68.9	87.4	74.7	60.3
Q5	89.3	84.0	79.6	94.4	85.6	76.6

Source: NISR 2015: 11

Access to electricity almost doubled during the same period to about 20%, although this benefitted the urban population more than the rural. The highest wealth quintile benefitted disproportionately (27.8% to 57.2% between EICV2 and EICV4) than the lowest wealth quintile (0.0% to 1.7% during the same period) (NISR 2015: 12).

Table 5: Evolution in access to electricity

	% of households using electricity as main source of lighting		
	EICV4	EICV3	EICV2
Rwanda	19.8	10.8	4.3
Province			
Kigali City	73.3	55.6	29.7
Southern	9.3	3.2	2.1
Western	14.7	8.2	2.0
Northern	10.4	6.7	1.0
Eastern	15.3	5.6	1.7
Urban/rural			
Urban	71.8	46.0	23.1
Rural	9.1	4.7	0.7
Quintile			
Q1	1.7	0.4	0.0
Q2	5.0	0.8	0.2
Q3	7.1	2.1	0.1
Q4	16.8	5.6	0.6
Q5	57.2	38.8	17.8

Source: NISR, EICV2, EICV3, EICV4

Source: NISR 2015: 12

A study by Van Gevelt (2016) uses primary data collected from 163 households in an off-grid Rwandan village to provide insights into access to energy at the household-level. An asset- and income-based index was created to disaggregate research results by socio-economic status and the determinants of household willingness-to-pay for electricity were investigated. The study finds significant differences between households of different socio-economic status for expenditure on a range of indicators (access to lighting and other electricity services, willingness-to-pay for electricity, income-generating activities and food security).

Social inequality

Spatial inequalities are frequently highlighted in research on inequality in Rwanda, in terms of both the **urban/ rural divide** (Silva Leander 2012; Abbott 2015; Dawson 2018) and **regional differences** (Finnoff 2015: 225; McKay and Verpoorten 2016: 33). A quantitative study by Ansoms and McKay (2010) illustrates the diversity of livelihoods profiles in rural Rwanda, which can help to counter oversimplified aggregate depictions of the 'rural' population. Applying a multidimensional wellbeing approach, alongside mixed method research with 115 rural households in two locations in Western Rwanda, Dawson (2018) examines perceptions of rural Rwandans on the changes affecting them. It found that household level impact was heavily influenced by socio-economic power and socio-economic grouping.

There is a wealth of literature on **gender (in)equality** in Rwanda, much of it qualitative. Abbott and Malunda (2015: 24) observe that the availability of gender-disaggregated statistics in Rwanda has been historically limited; there are efforts underway to develop indicators that may more usefully capture gender equality in service delivery.

According to the World Economic Forum Index (2016), Rwanda ranks fifth out of 144 countries in the Global Gender Gap. Despite this, it is widely observed that **women and girls in Rwanda still face significant economic, social and political inequalities** (WFP 2012; Abbott et al 2015; Abbott and Malunda 2015: 28-37; Stavropoulou and Gupta-Archer 2017). Abbott et al (2015) suggest that these relate to embedded cultural values and practices that construct women as 'naturally inferior', as well as lack of male gender champions, lower levels of education amongst women and domestic responsibilities (ibid).

The UNDP's **Gender Inequality Index (GII)**¹² provides data on gender inequality in relation to:

1. Reproductive health (measured by maternal mortality ratio and adolescent birth rates)
2. Empowerment (measured by proportion of parliamentary seats occupied by females and proportion of adult females and males aged 25 years and older with at least some secondary education)
3. Economic activity (expressed as labour market participation and measured by labour force participation rate of female and male populations aged 15 years and older)

According to UNDP (2016), Rwanda had a GII value of 0.383, ranking it 84 out of 159 countries in the 2015 index.¹³ In Rwanda, 57.5% of parliamentary seats are held by women, and 10.5% of adult women have reached at least a secondary level of education compared to 16.4% of their male counterparts. For every 100,000 live births, 290 women die from pregnancy related causes; and the adolescent birth rate is 26.3 births per 1,000 women of ages 15-19. Female participation in the labour market is 86.4% compared to 83.2% for men.

According to the World Economic Forum's **Global Gender Gap Index**, Rwanda ranks fifth out of 144 countries (WEF 2016). The index indicates the relative disadvantage of women, which is classified in four categories (sub-index): economical participation and opportunity, political empowerment, education attainment, and health and survival. Rwanda is ranked in the top ten in political empowerment and has strong performance in economic participation (ranked 8th). It scores lower on educational attainment (110) and health and survival (89). According to the report, Rwanda has closed its gender-wage gap compared to 2014, and is ranked as the best country worldwide. Bigler et al (2017: 20) caution that the finding needs to be understood and analysed within the context of how survey questions were asked: "In your country, for similar work, to what extent are the wages for women equal to those of men?". In other words, this was not based on an actual comparison of men's and women's wages.

According to WEF (2016), Rwanda closed 80% of its gender gap, primarily due to progress made in terms of economic participation and opportunity (with a higher representation of women than men in the labour force). Nevertheless, it also notes that most of this participation is low-skilled (ibid: 22). The report ranks Rwanda in terms of economic participation and opportunity (8), educational attainment (110), health and survival (89), political empowerment (8).

¹² See <http://hdr.undp.org/en/composite/GII>

¹³ See <http://hdr.undp.org/en/composite/GII>

UNDP's **Life-course Gender Gap Dashboard**¹⁴ assesses countries overall achievements with regards to gender equality. It comprises 14 key indicators that display gender gaps over the life course (i.e., childhood and adolescence, adulthood and older age). The indicators refer to health, education, labour market and work, and social protection. According to this ranking in UNDP (2016), Rwanda placed 159 out of 188 countries.

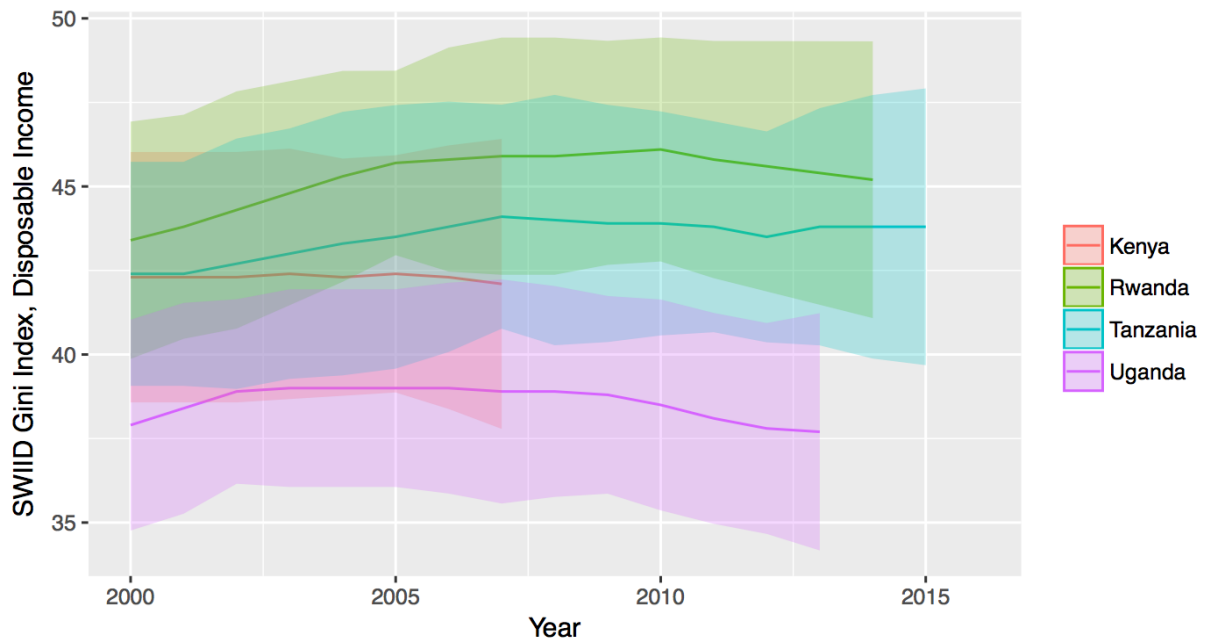
There is a lack of inequality data that disaggregates 'social and cultural difference' (Dawson 2018: 11). There are acknowledged difficulties in researching inequalities linked to ethnicity due to the government's post-Genocide policies which officially deny ethnic differentiation. But the resulting difficulties related to collecting ethnically disaggregated data hampers understandings of horizontal inequalities based on ethnic differentiation (Silva Leander 2012: 235). Moreover, this can obscure the inequalities experienced by cultural minorities and indigenous groups. Although ethnic and geographic divisions often align, important nuances and differences between these populations are lost when relying on more simplistic urban/ rural categorisations. Dawson's (2018) study shows unequal power between the groups in his study that did not easily align with popular, but often simplistic, ethnic or spatial categorisations. Like Abbott et al (2012) and Abbott and Mugisha (2014), he found that the ethnic Batwa (often referred to as 'historically marginalised people') were significantly disadvantaged in many spheres of life.

4. Regional comparisons

According to World Bank (2016b: 124), Rwanda's Gini index was 50.8 in 2012. This was significantly higher than any of its East African neighbours, Tanzania (35.8), Burundi (46.0), Kenya (47.7) and Uganda (44.3). This is visually illustrated by the Gini coefficient comparison for East Africa drawn from The Society for International Development (SID), although this also indicates that inequality in Rwanda has been declining since 2010. SID (2013: 8) points out, however, that the reduction in Rwanda was from 'a very high level.'

¹⁴ See <http://hdr.undp.org/en/composite/Dashboard1>

Table 6: Gini index: Rwanda, Uganda, Tanzania and Kenya (2000-2015)

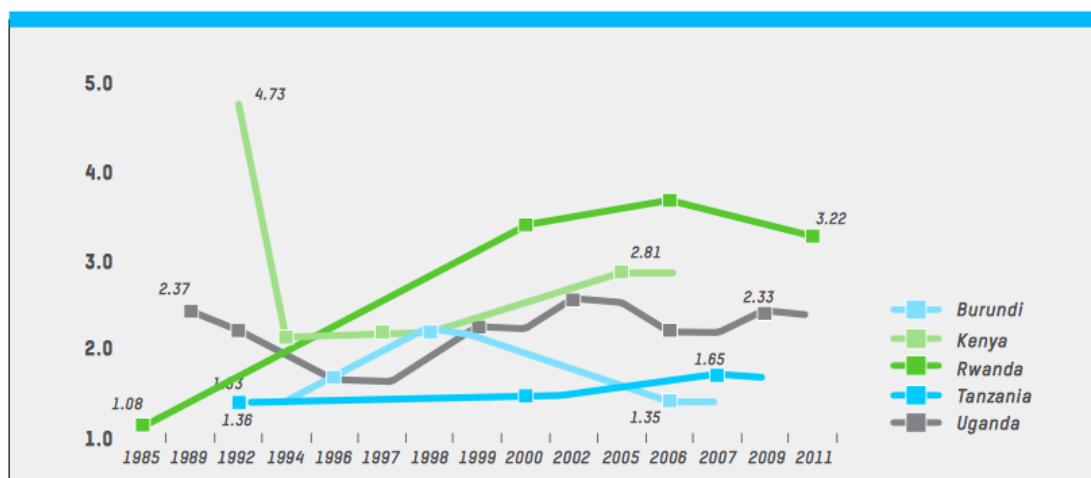


Note: Solid lines indicate mean estimates; shaded regions indicate the associated 95% uncertainty intervals.
 Source: Standardized World Income Inequality Database v6.2 (Solt 2016).

Source: Frederick Solt <https://fsolt.org/swiid/>

Assessing inequality using the Palma ratio indicates similar trends. Oxfam (2016: 31) uses the share of gross national income (GNI) claimed by the richest 10% of the population divided by that of the poorest 40% to assess income distribution in East Africa. This illustrates that income inequality in Rwanda is highest in the region, at 3.22 in 2011. A comparison with previous years indicates that, alongside Burundi, inequality in Rwanda has been declining, whilst it is rising in Kenya, Uganda and Tanzania.

Table 7: Trends in the Palma Ratio in East Africa (1985-2011)



Source: <http://www.indexmundi.com/facts/topics/poverty>, and PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank (<http://iresearch.worldbank.org/PovcalNet/index.htm>)

SID (2016) provide more in-depth analysis of economic growth and inequality East Africa. This follows on from a series of previous reports on the same topic. SID (2016) looks at the political economy of inequalities across nine sectors (agriculture, wages and wage policy, education, health, housing and shelter, justice, security, discrimination and identities, security, and intergenerational challenges. It also interrogates where East African countries get, and spend, their resources; what policy decisions are made (or not) and who benefits from them; as well as whose narrative prevails.

SID (2016) notes a discrepancy in the Palma ratio calculated by the Global Consumption and Income Project (GCIP) and UNDP. According to GCIP the Palma ratios ranged from 5.02 (Burundi) to 7.42 (Rwanda), whilst UNDP data (from the 2015 Human Development Index) calculated 1.3 (Burundi) and 3.2 (Rwanda). It suggest that the differences are due to the data and how each organisation adjusted these. SID, notes, however, that 'In looking at the two data sets, the gap reported by the GCIP method seems more likely to reflect reality on the ground' (SID 2016: 67). They go on to emphasise the need for more reliable income and consumption data from each country. It also analyses data on wage inequalities across the region, noting that 'In Rwanda, there is a 72.% wage differential between the highest and lowest paid person (SID 2016: 72) The report notes that 'wage differentials are lowering workforce morale and could be encouraging corruption' (SID 2016: 73).

Table 8: Public wages in Rwanda

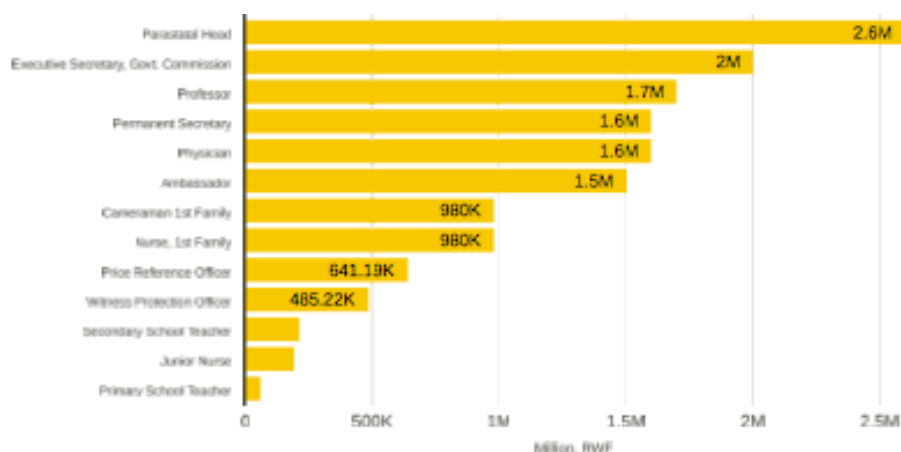


Figure 14: Data, The East African, May 17 2013'

Source: SID (2016: 72)

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