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NATIONAL INSTITUTE OF STATISTICS OF RWANDA

# EICV<sub>3</sub> THEMATIC REPORT

## Income

August 2012

## Foreword

The 2010/11 Integrated Household Living Conditions Survey, EICV3 (Enquête Intégrale sur les Conditions de Vie des Ménages), is the third in the series of surveys which started in 2000/01 and is designed to monitor poverty and living conditions. The survey fieldwork commenced in November 2010 and continued for one full year. In 2010/11, for the first time the achieved sample size of 14,308 households in the EICV3 was sufficient to provide estimates which are reliable at the level of the district.

To date, two publications have been issued by the National Institute of Statistics of Rwanda (NISR) using EICV3 data: a report with an overview of main indicators and a poverty profile. The present report is one of a series of 10 further documents that each explores in depth a theme from the Economic Development and Poverty Reduction Strategy (EDPRS) using data from EICV3 and a limited number of other sources. The objective is to provide analysis that will contribute to the understanding of the sector and to support the elaboration of Rwanda's Second EDPRS.

The 10 thematic reports in this series are: (i) Economic Activity; (ii) Utilities and Amenities (water/sanitation/energy/housing/transport/ICT); (iii) Social Protection; (iv) Environment and Natural Resources; (v) Consumption; (vi) Gender; (vii) Youth; (viii) Education; (ix) Agriculture; and (x) Income.

This report also draws on information contained in the Labour Market and Economic Trends in Rwanda report from August 2007, which reported on the EICV2 survey, and the Establishment Census of 2011. The report also includes some text from the Main Indicators Report of the EICV3 and makes some revisions to the data published there as a result of deeper analysis of the data.



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## Methodological notes for readers

### Urban and rural classification in the EICV3 data

Although the sampling frame for the EICV3 was based on an updated frame of villages, the urban and rural classification of the villages in the EICV3 data is based on the corresponding geographic designations from the 2002 Rwanda Census of Population and Housing. Since the EICV2 sample design was based on the sampling frame from the 2002 census, this urban/rural classification in the EICV3 data makes it possible to directly compare the urban and rural results from the EICV2 and EICV3 data. However, the urban/rural codes in the EICV3 data do not represent the current status of these villages, so it is important that users understand how to interpret the urban and rural results from the data. For example, since the urban classification was mapped directly from the 2002 geographic structure of Rwanda, the estimated total urban population from the survey data will not represent the expected urban expansion of the population. It is even possible that the estimate of the percentage of the population that is urban from the EICV3 data is slightly less than that from the EICV2 data because of sampling variability.

The initial urban/rural classification of the villages in the EICV3 sampling frame was determined at the level of the old sectors. In the 2002 Rwanda census frame, 1,545 sectors were defined for Rwanda. Under the new geographic structure these were reconfigured into 416 new sectors. Each of the 2002 sectors was classified as either urban or rural, and all the zones de dénombrement within the sector were given the corresponding urban/rural code. A spreadsheet was compiled showing the geographic correspondence between the 2002 sectors and the current sectors. When all the old sectors corresponding to a new sector were either urban or rural, the corresponding classification was assigned to all the villages in this sector. However, in the case of new sectors that are composed of both urban and rural old sectors, the villages were assigned a code of 3 for 'mixed'. The EICV3 sampling frame of villages for each district was ordered by urban, mixed and rural classifications in order to provide implicit stratification and a proportional allocation of the sample to each of these groups. For EICV3, there were 106 sample villages in new sectors classified as mixed, for which it was necessary to have a special cartographic operation to determine the urban/rural classification. The file with the GPS coordinates of each EICV3 sample village was used to pinpoint the exact old sector where the village was located. In this way it was possible to obtain the 2002 urban/rural classification for all the villages in the EICV3 sample.

The NISR is currently updating the urban and rural classification of all villages in preparation for the 2012 Rwanda census. Once these urban/rural codes have been finalised, it will be possible to merge these codes into the EICV3 data file so that the sample can be post-stratified and tabulated by the current urban and rural classification. This will not affect the weights in the survey data, which are based on the probabilities of selection. It is important to tabulate the urban and rural results using the new codes in order to represent the current distribution of the population and their characteristics (for the reference period of EICV3). However, the 2002 urban/rural codes should also be kept in the EICV3 data file for comparing the results to EICV2.

### Confidence intervals at the provincial urban/rural level

Readers should be aware that the urban component of the rural provinces is very small, as is the rural component of Kigali City. Estimates presented for these urban and rural domains are consequentially affected by large sampling errors.

The tables below show the unweighted sample sizes at provincial level for urban and rural domains.

EICV3	Urban/rural 2002		Total (000s)
	Urban (000s)	Rural (000s)	
Kigali City	1,177	171	1,348
Southern Province	492	3,348	3,840
Western Province	204	3,156	3,360
Northern Province	132	2,268	2,400
Eastern Province	144	3,216	3,360
Total	2,149	12,159	14,308

EICV2	Urban/rural 2002		Total (000s)
	Urban (000s)	Rural (000s)	
Kigali City	954	72	1,026
Southern Province	279	1,428	1,707
Western Province	153	1,500	1,653
Northern Province	135	924	1,059
Eastern Province	99	1,356	1,455
Total	1,620	5,280	6,900

### Quintiles and poverty classifications

The results are presented by quintile. Quintiles are developed by sorting the sample of households by annual consumption values, and then dividing the population into five equal shares. The 20% of individuals with the highest annual consumption are allocated to quintile 5 and the 20% of individuals with the lowest levels of annual consumption are allocated to quintile 1. The poorest households and their members are found in quintile 1 and the richest are found in quintile 5. Those around the poverty line are found in quintile 3.

Consumption is used as a proxy for income, as is usual when estimating poverty. The reader should refer to the report on the Evolution of Poverty in Rwanda from 2000 to 2011 for further information on this topic.

## Executive summary

The Economic Development and Poverty Reduction Strategy (EDPRS2) was officially launched by the President of Rwanda in February 2012. A key input into the development of the EDPRS2 is the evidence collected through EICV3, fieldwork for which was carried out by the NISR between October 2010 and November 2011. The NISR will release a series of 10 reports that explore in depth 10 different topics that are of high importance to the elaboration of EDPRS2. This report is one of these 10 thematic reports that seek to inform and support the development of the EDPRS2 with data from the EICV3. It focuses on income.

### Overview of income

Aggregate income in Rwanda is derived mainly from agriculture – almost half of all income – and about a quarter from salaried labour, i.e. wage income. The income in the poorest households almost exclusively comes from agriculture. The wealthier households on the other hand report that their most significant source of income is wage income.

A general shift of income from agriculture into wage incomes can be observed between EICV2 and EICV3. A larger proportion of households are receiving income from wages and self-employment and lower from agriculture. At the same time, mean real wage income has increased significantly over the same time period, while agricultural mean real income has increased at a much slower rate. What seems clear from the results is that the importance of agriculture as a source of income has decreased between EICV2 and 3, while the importance of wage income, self-employment and transfers have increased.

Between EICV2 and EICV3, mean aggregate per adult equivalent real income grew from RWF 126,872 to RWF 289,338 in 2011 prices. However, this increase needs to be interpreted very cautiously; it is driven by a few very high incomes in EICV3 as well as probably some underestimation in EICV2. A much more reliable indication of income growth is instead provided by consumption, which is more precisely measured than income and which shows an average annual growth of 4.4% over this period. This is in itself an impressive increase.

### Components of income

This report focuses on five main components of income: agricultural income, wage income, business income, rent income, and income from transfers. At the national level, agriculture contributes the largest share of income, followed by wage income, business income (i.e. self-employment), transfers, and rents. Compared to the EICV2 data, wage income and business income shares have increased significantly, at the expense of rent and agriculture shares.

Agricultural income, while declining in share of total income, has still grown in real terms and is still its largest component. The largest share of agricultural income comes from own consumption, which accounts for about nine-tenths of agricultural income. While a larger number of households are now doing some cultivation of land than was the case in EICV2, a lower number of households have agriculture as their main sources of income. This and the higher mean values of real agricultural income for mainly farming households have contributed to its lower share of total income. It is likely that work in own-account agriculture is being substituted with opportunities in non-agricultural and waged sectors.

Trade of agricultural items is a more significant component of agricultural revenue in EICV3 than it was in EICV2; a much faster growth is recorded in sales of agricultural items than in own consumption between EICV2 and EICV3. This is likely to reflect in part better harvests in the EICV3 period compared to the EICV2 period.

Wage income is driven by the largest sub-component of non-farm wage income, which is a characteristic income component of the highest consumption quintile. The value of non-farm wages in particular is skewed significantly towards the wealthiest households. While in aggregate the non-farm and farm wages comprise similar proportions of total wage income, the difference is starker when one looks at the provincial level. Kigali City derives 83% of wage income from non-farm wages when the other provinces rely more on farm wage income.

Similarly to the non-farm wages, own-business income (self-employment) is heavily skewed towards the top consumption households. In other words, business income is a much more important activity among the higher-income households. It constitutes only a marginal share of income among average or lower income households. The revenue-to-costs ratio is about the same for households in the fourth and fifth quintiles of consumption, which suggests that businesses are not more profitable at the top end.

Rental income constitutes a smaller share of total income. Income share from rents also does not change considerably with the increase in consumption of the household. Since EICV2, income from rents constitutes a smaller proportion of income. This reduction is mostly due to the drop in rental income in the highest quintile. Its overall structure from sub-components remains very similar between EICV2 and EICV3, with nearly all of it coming from imputed rents from owner-occupied dwellings.

Income from transfers is further divided into four sub-components. The mean value of transfers in real terms has nearly quadrupled since between 2005/06 and 2010/11. In-kind private transfers account for about half of all transfers, followed by the public transfers and remittances. Remittances account for a higher share of income from transfers among higher consumption households and in Kigali City. Based on the income data, it can be said that the targeting of public transfers has been more efficient since EICV2, as it not only increases in aggregate but induces a higher increase of income share in the poorest households compared to the wealthiest ones.

## **Income and consumption**

Comparing income and consumption, the EICV3 data suggest that household income data are reliable and consistent with household consumption. These two are not identical as households save and borrow, so consumption differs from income. The two are however highly correlated and follow very much the same distribution across households in Rwanda.

## **Transfers**

By far the largest number of transfers sent is within Rwanda; a small number are sent to other countries in Africa but almost none outside Africa. Sending remittances within Rwanda though is widespread and these transfers may be sent in cash or in kind. The amounts of remittances are largest from senders based in Kigali City and lower in other provinces. The median amount of remittances sent abroad is not particularly higher than their internal counterparts. Private transfers are often made in kind and cash is almost always sent via non-bank channels.

The majority of other public and private sources is very small or negligible, including direct support from the Vision 2020 Umurenge Programme (VUP). For the most part patterns do not vary much by province, with the exception of educational scholarships.

## **Access to credit**

About three-quarters of households have asked for credit and almost every one of these households has been approved and received credit. The pattern is very similar in EICV2 as for

EICV3. Informal lenders are the dominant source in EICV3, while relatives/friends were in EICV2. The relatives and friends category lost some of its significance as a source in EICV3. Tontine became a more notable source in EICV3 compared to EICV2; cooperatives were quite an important secondary source in EICV2 and to some extent in EICV3. Most other sources are less important, including commercial banks.

Just over one-fifth of households report having a savings account in EICV3, up from less than one-tenth in EICV2. Savings rates are much bigger in Kigali than elsewhere, and are bigger in higher quintiles compared to lower ones.

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## Abbreviations

CDF	Cumulative Distribution Function
EDPRS	Economic Development and Poverty Reduction Strategy
EICV	Integrated Household Living Conditions Survey (Enquête Intégrale sur les Conditions de Vie des Ménages)
FARG	Genocide Survivors Support and Assistance Fund
HH	Household
NISR	National Institute of Statistics of Rwanda
OPM	Oxford Policy Management
RWF	Rwandan Franc
VUP	Vision 2020 Umurenge Programme

# 1 Introduction

On 7 February 2012, the President of Rwanda officially launched the design of the second phase of the Economic Development and Poverty Reduction Strategy (EDPRS2). A key input into the development of the EDPRS2 is the evidence collected through the EICV3. The NISR will release a series of 10 reports that explore in depth 10 different topics that are of high importance to the elaboration of EDPRS2.

This report is one of these 10 thematic reports that seek to inform and support the development of the EDPRS2. It focuses on the structure and dynamics of income in Rwandan households. The analysis is drawn from the evidence collected through EICV2 and 3. The fieldwork was carried out by the NISR between October 2005 and September 2005 for EICV2 and October 2010 and November 2011 for EICV3. The data thus allow for a report on current household income composition in Rwanda as well as for the description of the changes in the composition over the five-year period between the two surveys.

Section 2 describes the definitional framework of the income aggregate and its components. It also explains the price index used to adjust income to the real values in 2011 prices. In section 3, the analysis of income and its components are presented, while section 4 briefly compares household income and consumption figures. The remaining sections of the report then focus specifically on transfers (sections 5 and 6) and credit (section 7).

## 2 Definitional and methodological framework of EICV3 income analysis

The definition of income used in the present report comprises income from employment, self-employment, household agricultural income, rental income, remittances and other private and public transfers received by an individual.

The constituent components of each aggregate are set out in detail in Table 2.1. The final income aggregate is computed as following (see Table 2.1 for codes a, b, c, ..., r):

$$\text{Total income} = (a + b + c - d - e - f - r) + (g - h) + (i + j) + (k - l) + (m + n) + (o + p + q)$$

- **Household agricultural income:** this component is first divided into agricultural income (income from land cultivation) and livestock income. Unless otherwise specified, this report sums the two components into one agricultural component. It includes revenues from sale of crops, processed crop products and other agricultural products (a+b), own consumption of food and non-food products (c), and the revenues from renting out livestock, sale of small animals and sale of livestock products (g). The income aggregate deducts costs on crop inputs (d), inputs used for processing crop products (e), and expenditure on livestock (h) and the cost of renting land (f). Within the costs, the income aggregate includes the depreciation of land and agricultural equipment (r). The depreciation rate is equal to 0.2 per annum.
- **Wage income:** this includes cash and in-kind revenues received from farm and non-farm work. In-kind payments include food and other agricultural products, provision of house and other benefits received for the work.
- **Non-farm self-employment (business):** this includes income received net of labour and other inputs.
- **Income from rents:** this includes actual rents received from renting out livestock, agricultural equipment and land (rent and sharecropping), as well as the imputed rental value of owner-occupied dwellings.
- **Transfers:** this includes remittances received (cash and in-kind) and other private transfers. It also includes public transfers. Private transfers received from dowry and sales of assets and land are excluded.

**All income values are in real terms, deflated by a price index which reports values in January 2011 prices.** The price deflator used here to express values in real terms is the same one that was used in the poverty analysis. This used price data from the Ministry of Agriculture and Animal Resources for food items, raw price data from the Consumer Price Index for non-food items and commodity weights from the EICV surveys. It adjusts for differences in prices between provinces, months of the year and from one EICV round to another. Therefore, values are deflated based on the month, year, and province of the particular household surveyed either under EICV2 or EICV3. The price index is based on a general basket of goods including food and non-food items, thus implicitly assuming the income generated by a household is spent on this general basket of goods.

**Table 2.1 Constituent components of income aggregates**

			<b>Revenue (+)</b>		<b>Expenditure (-)</b>
<b>AGRICULTURAL INCOME</b>	<b>Revenue from sale of crops</b>	<b>a</b>	Revenue from sale of large crops	<b>d</b>	Expenditure on crop inputs
			Revenue from sale of small crops		
			Revenue from sale of other agricultural products		
	<b>Revenue from sale of processed crop products</b>	<b>b</b>	Revenue from sale of processed crop products	<b>e</b>	Expenditure of inputs for processing
	<b>Consumption of own produce</b>	<b>c</b>	Consumption of own food products		
			Consumption of own non-food products		
<b>Other expenses</b>			<b>f</b>	Expenditure on rent of land	
			<b>r</b>	Depreciation of agricultural equipment	
<b>LIVESTOCK INCOME</b>	<b>Revenue from sale of livestock/livestock products</b>	<b>g</b>	Revenue from sale of small livestock	<b>h</b>	Expenditure on livestock
			Revenue from sale of livestock products		
			Income from renting livestock		
<b>WAGE INCOME</b>	<b>Farm income</b>	<b>i</b>	Revenue received in cash		
			Revenue received in kind— food and others		
			Revenue received in kind—housing		
			Revenue received in kind—other benefits		
	<b>Non-farm income</b>	<b>j</b>	Revenue received in cash		
			Revenue received in kind—food and others		
			Revenue received in kind—housing		
			Revenue received in kind—other benefits		
<b>BUSINESS</b>	<b>Income</b>	<b>k</b>	Income	<b>l</b>	Labour and non-labour expenditure
<b>RENTS</b>	<b>Income from land</b>	<b>m</b>	Income from renting land/agricultural equipment		
	<b>Imputed rent</b>	<b>n</b>	Imputed rent of owner-occupied dwelling		
<b>TRANSFERS</b>	<b>Private transfers</b>	<b>o</b>	Remittances received in cash		
			Remittances received in kind		
		<b>p</b>	Income from other private transfers		
	<b>Public transfers</b>	<b>q</b>	Income from public transfers		



### 3 Income and its components

#### 3.1 Overview of economic activities

Income in Rwanda is derived mainly from own-account agriculture and wages. However, **the proportion of income being generated by agriculture has decreased over the period between EICV2 and EICV 3, which contraststo thehigher activity of the households in self-employment and non-farm wage jobs.** The proportion of households with members engaging in independent farming remained mostly unchanged between EICV2 and EICV3 at 90% of all households.<sup>1</sup> A household business activity is reported as generating income among 40% of households in EICV3 versus 10% in EICV2.

About 49% of households in EICV3 report receiving some income from farm wages. Farming is less common in Kigali City, where about half of households report receiving some income from independent farming and 15% from farm wages (Table 3.1). At the national level, non-farm wages and own businesses (self-employment) contribute to total income in 49% and 40% of all households respectively. About three-quarters of households in Kigali City are receiving income from non-farm wages. The remaining four provinces are more similar to the national average, with the Western and Northern provinces reporting a slightly higher dependency on non-farm wages, at roughly 50%. Outside Kigali City, reliance on self-employment is highest in the Western Province (44%).

**In the bottom quintile, 98% of households report income dependence on own-account farming, while about three-quarters also report income from farm wages.** Alternatively, in the top quintile 72% report income from individual farming and less than one-fifth from farm wages. Non-farm wages contribute to income among 62% of top quintile households. The difference is most notable between the fourth and fifth quintiles, whereas the bottom four quintiles look similar in terms of non-farm wages (about 44%) and individual farming (about 96%).

**Table 3.1 Percentage of households that obtained some income from various income sources, EICV3**

	EICV3				Total no. of HHs(000s)
	Farm wages	Non-farm wages	Independent farming	Own business	
All Rwanda	48.8%	48.7%	90.9%	40.1%	2,253
Kigali City	14.7%	77.0%	49.6%	47.9%	223
Southern Province	52.9%	43.8%	96.3%	36.2%	549
Western Province	53.2%	48.4%	93.2%	43.5%	528
Northern Province	55.1%	50.1%	97.1%	36.4%	411
Eastern Province	49.5%	41.3%	95.6%	40.2%	542
Q1	76.8%	44.0%	98.4%	30.2%	381
Q2	64.5%	44.2%	97.5%	35.5%	415
Q3	52.2%	44.0%	96.9%	40.7%	448
Q4	41.5%	46.1%	94.2%	43.6%	490
Q5	19.5%	62.3%	72.1%	47.1%	519
Base:	all	households.		Source:	EICV3.

<sup>1</sup>Table 3.1 displays EICV2 data on the proportion of households with income from various sources.

## 3.2 Total income

Comparing the mean values of total income in EICV2 and EICV3 might suggest that mean income per adult equivalent has increased by 128% in real terms since EICV2 (Table 3.2). Over the same period the median value of the total income per adult increased from 67343 FRw in the EICV2 period to 141325 in the EICV3 period. Both of these suggest a large increase in income, but this needs to be interpreted very cautiously. The much more accurately estimated consumption suggests a much smaller increase. Income levels are difficult to estimate reliably in surveys; here there is evidence that income may have been underestimated in EICV2 and the high mean values in EICV3 are partly influenced by some high values at the top. The reported income data almost certainly exaggerate the increase over this period. But income data are still valuable focusing rather on composition. The mean values of incomes from all components increase over the period, with the smallest increase being in agriculture, which still increases by nearly 23%.

Agriculture and wages are the most important income sources in both years, but their relative importance changes: agriculture was the main source of income in EICV2 but is overtaken by wage income in EICV3. Business income also makes an important contribution. Rents and transfers make smaller contributions, but the levels of income from transfers are also much higher in EICV3 than EICV2, especially in the case of public transfers.

It is more difficult to look at median values when looking at income components because they will often be earned only by a minority of households, so that the median value is zero. But it is nevertheless of value to look at the changes in the median values of non-zero observations of the two largest components which increased most over this period, wages and self employment income. The median value of non-zero observations of wage income increases by a factor of two and a half over this period, from 13864 in the EICV2 period to 34055 in EICV3; this is similar to the pattern shown by the mean value. By contrast the median value of self employment income increases from 19428 in the EICV2 period to 24658 in the EICV3 period, a much smaller increase than that shown by the mean. In this case the large increase in the mean is driven by a few high values at the top end.

There is therefore quite strong evidence of increasing wage income over the period. While it may be that these activities were more effectively picked up more fully in EICV3 than EICV2, this is consistent with evidence available elsewhere of increasing creation of wage jobs over this period. Another big change between EICV2 and EICV3 has been the increasing importance of transfer income. These factors have contributed to a reduced share of income from own account agriculture over the period.

**Table 3.2 Mean aggregate per adult equivalent real income and income components (RWF)**

	Agriculture	Wage	Business	Public transfer	Private transfer	Rents	Total income	No. of HHs (000s)
EICV3	74,848	109,046	59,199	7,302	19,076	19,867	289,338	2,253
EICV2	61,006	37,664	8,474	1,037	6,187	13,159	126,872	1,892

Base: Allhouseholds, January 2011 values. Source EICV2, EICV3.

Compared to EICV2, in EICV3 less of the aggregate income is derived from agriculture and rents and a higher share of income comes from non-farm wages and self-employment (Table 3.3). This

pattern is true in all provinces. The increase in the share of wage income and the drop in agricultural income share reflect higher growth in the former compared to the latter. Own business share (i.e. self-employment income share) has increased by roughly three times between the two surveys, but the above caveat applies. Nevertheless, a higher share of self-employment is not only due to higher mean income but also due to the higher proportion of individuals engaging in self-employment when EICV3 took place. The share of rent income decreased from a quarter to 8.4% over the same time period.<sup>2</sup>

The share of private transfers decreased from about 9% to 7%, although it increased in some locations as in Kigali City. The drop is observed in all five consumption quintiles. In contrast, public transfers' income share increases from 0.4% to 3.2%. Based on the income data, it appears that targeting of public transfers became more effective after EICV2, as it not only increases in aggregate but induces a higher increase of income share in the poorest households compared to the wealthiest ones. In EICV2, public transfers constituted a share of 0.1% of income in the lowest consumption quintile while the share in the highest quintile was 0.8%. For EICV3 this share increased to 4.8% in the lowest and 2.2% in the highest quintile (Table 3.3).

**Table 3.3 Income shares**

		Agriculture	Wage	Business	Public transfers	Private transfers	Rents	No. of HHs (000s)
All Rwanda	EICV3	45.7%	25.3%	10.5%	3.2%	6.9%	8.4%	2,253
	EICV2	52.2%	9.7%	3.7%	0.4%	8.8%	25.2%	1,892
Kigali City	EICV3	11.8%	44.0%	21.5%	2.4%	10.0%	10.4%	223
	EICV2	23.0%	39.3%	10.4%	1.2%	9.5%	16.7%	177
Southern Province	EICV3	51.4%	22.5%	6.7%	3.5%	6.9%	9.0%	549
	EICV2	71.1%	6.5%	2.9%	0.3%	5.8%	13.4%	499
Western Province	EICV3	44.7%	24.2%	12.1%	4.4%	7.4%	7.2%	528
	EICV2	57.0%	6.7%	3.8%	0.3%	9.7%	22.4%	448
Northern Province	EICV3	49.6%	24.5%	9.1%	3.8%	5.7%	7.3%	411
	EICV2	69.6%	6.1%	1.8%	0.2%	7.2%	15.2%	347
Eastern Province	EICV3	51.9%	22.0%	9.4%	1.5%	6.1%	9.1%	542
	EICV2	22.8%	7.4%	3.3%	0.3%	12.4%	53.8%	421
Q1	EICV3	48.2%	29.0%	5.2%	4.8%	5.7%	7.2%	381
	EICV2	67.6%	3.6%	1.1%	0.1%	7.4%	20.3%	329
Q2	EICV3	53.7%	22.9%	6.6%	3.3%	5.8%	7.7%	415
	EICV2	71.0%	4.7%	1.6%	0.2%	6.2%	16.2%	353
Q3	EICV3	53.0%	20.4%	9.4%	3.2%	6.2%	7.7%	448
	EICV2	70.0%	4.3%	1.9%	0.1%	6.6%	17.1%	368
Q4	EICV3	49.8%	20.8%	10.7%	2.9%	7.0%	8.8%	490
	EICV2	66.8%	6.3%	3.6%	0.4%	8.6%	14.4%	398
Q5	EICV3	27.2%	32.9%	18.4%	2.2%	9.2%	10.1%	519

<sup>2</sup> The high rent figure in the Eastern Province in EICV2 is misleading, reflecting the impact of the negative values of some income components.

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<i>EICV2</i>	-1.7%	25.9%	8.9%	0.8%	13.9%	52.2%	444
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Base: All households. Source EICV2, EICV3.

### 3.3 Income sources for mainly agricultural households

A household is defined as mainly agricultural when more than 50% of its income is from own-account agriculture. The number of such households decreased from 1.4 million to 1.1 million between EICV2 and EICV3. This section focuses on agricultural households only.<sup>3</sup> Overall, the number of households cultivating any land for crop production has grown between the surveys, from 1,732,000 to 2,095,000.

This contrasts with a fall in the number of households who derive the majority of their income from agriculture, suggesting a change in the balance of income sources from agricultural production to waged employment, both farm and non-farm. Table 3.3 shows that by EICV3 less than half of all household income was being drawn from agricultural production.

**Table 3.4 Estimate of agricultural households and households drawing the majority of their income from agriculture, by survey**

	No. of HHs cultivating land for crop production (000s)	No. of HHs who draw the majority of their income from own- account agriculture
EICV3	2,095	1,088
EICV2	1,732	1,401

Given a lower number of mainly agricultural households and higher mean values of real agricultural income, it is likely that low-income-generating work in agriculture is being substituted with more profitable opportunities in non-agricultural sectors or in (equally low-income-generating) farm wage work. The decrease in mainly agricultural households does not come from any particular consumption category. The number of households in the highest quintile has decreased from 228,000 to 137,000, and in the bottom quintile from 257,000 to 189,000.

Agricultural income is comprised of four revenue categories and five expense categories. It increased by 45% at the national level between 2005/06 and 2010/11. The increase was most prominent in Kigali City and Northern Province, which report a 70% and a 56% increase

<sup>3</sup> Consequently, the values in this section differ from section 3.2, which uses all households as a base. The number of households who are engaged in some form of cultivation is much higher than the number who draw the majority of their income from agriculture. In EICV3, 2,095,000 households engage in cultivation, while 1,088,000 are included in this report as mainly agricultural (see Thematic Report on Agriculture).

respectively.<sup>4</sup> These two provinces also display a comparable mean total real agricultural income in EICV3, higher than other provinces (though the sample size in Kigali is small).

**Table 3.5 Agriculture: mean values of real agricultural income and sub-components, per adult equivalent**

	Revenue				Costs					Total agricultural income	No. of HHs(000s)
	Sales of crops	Sales of processed products	Own consumption	Sales of small livestock/products	Crop inputs	Inputs to processing products	Cost of renting land	Expend on livestock	Depreciation of agricultural equipment		
EICV3	20,621	9,182	89,042	1,852	6,415	1,438	1,205	1,667	319	109,652	1,088
EICV2	11,163	5,753	64,112	753	3,603	653	641	1,154	489	75,643	1,401

Base: Agricultural households, January 2011 values. Source: EICV2, EICV3.

Trade of agricultural items is a more significant component of agricultural revenue in EICV3 than EICV2 (see Table 3.6 and Table 3.7); a much faster growth is recorded in sales of agricultural items than in own consumption between EICV2 and EICV3. Own consumption, the highest revenue item, records the lowest growth in mean value, at 40%, whereas sales of crops (the second largest revenue component) have about doubled between the two surveys. The mean value of total real revenues has increased by 47% between the surveys. That said, these facts reflect to a significant extent a relatively good harvest in EICV3 and a relatively poor one in EICV2; in other words, they cannot necessarily be interpreted as trends. The remaining components represent a much lower revenue share than the other three categories (Table 3.5).

Agricultural expenditures have increased as well, except for the depreciation of agricultural equipment. The mean value of total expenses has increased by 67% over the five years between surveys (Table 3.5). Although from a lower base, the mean value of expenditure has increased more than the mean value of revenues. Crop inputs, the largest expense category, have doubled since EICV2 and so have the costs of renting land and inputs to processing products. Expenditures on livestock have increased by 40%. Depreciation costs have dropped by 35% over the time period but this is driven mostly by its drop in the highest quintile, while depreciation has in fact increased for the bottom two quintiles.

<sup>4</sup> Province and quintile disaggregation of the data in Table 3.5 is available in Annex A.

Higher quintiles also engage more in trade, while lower quintiles consume more of their agricultural output. This statistic is fairly consistent between the two surveys. Higher quintiles also display a higher share of expenditures compared to total revenues, more so in EICV3 than in EICV2 (Table 3.6 and Table 3.7).

**Table 3.6 Agriculture: Income share,<sup>5</sup> EICV3**

EICV3	Revenue (+)				Costs (-)					No. of HHs(000s)
	Sales of crops	Sales of processed products	Own consumption	Sales of small livestock/products	Crop inputs	Inputs processing	Cost of renting land	Expend on livestock	Depreciation of agricultural equipment	
All Rwanda	16.1%	4.7%	87.7%	1.5%	6.0%	0.9%	1.3%	1.5%	0.3%	1,088
Kigali City	14.8%	7.9%	86.5%	5.4%	7.0%	1.0%	0.7%	5.6%	0.4%	24
Southern Province	16.0%	5.1%	86.7%	1.7%	5.5%	0.9%	1.3%	1.5%	0.3%	300
Western Province	14.6%	4.8%	88.6%	1.4%	5.7%	0.7%	1.4%	1.2%	0.4%	241
Northern Province	13.1%	4.9%	90.1%	1.6%	5.8%	1.5%	0.9%	1.1%	0.4%	215
Eastern Province	19.5%	3.8%	86.4%	1.2%	6.6%	0.5%	1.7%	1.8%	0.3%	308
Q1	9.9%	2.8%	93.6%	0.9%	4.1%	0.8%	1.3%	0.8%	0.4%	189
Q2	13.3%	3.9%	89.6%	1.2%	4.4%	0.7%	1.3%	1.1%	0.3%	245
Q3	16.8%	4.4%	87.3%	1.5%	5.9%	0.6%	1.5%	1.6%	0.3%	259
Q4	19.3%	5.7%	85.2%	2.0%	7.5%	1.0%	1.4%	1.9%	0.4%	259
Q5	22.4%	7.3%	81.6%	2.4%	8.3%	1.4%	1.2%	2.3%	0.4%	137

Base: Agricultural households. Source: EICV3.

<sup>5</sup> The costs are expressed in percentage of total revenue and expenditures, i.e. adding percentages of revenues and subtracting percentages of costs adds up to 100%.

**Table 3.7 Agriculture: Income share, EICV2**

EICV2	Revenue (+)				Costs (-)					No. of HHs(000s)
	Sales of crops	Sales of processed products	Own consumption	Sales of small livestock/products	Crop inputs	Inputs processing	Cost of renting land	Expend on livestock	Depreciation of agricultural equipment	
All Rwanda	13.7%	4.3%	90.9%	0.8%	6.4%	0.5%	1.3%	0.8%	0.5%	1,401
Kigali City	9.9%	4.6%	87.6%	1.0%	3.0%	0.3%	0.8%	-0.6%	-0.5%	45
Southern Province	12.2%	4.8%	91.2%	1.0%	5.9%	0.2%	1.2%	1.4%	0.6%	388
Western Province	13.9%	4.4%	93.0%	0.8%	7.5%	0.9%	2.1%	1.2%	0.5%	336
Northern Province	13.1%	3.2%	92.0%	0.8%	6.4%	0.5%	0.9%	0.6%	0.6%	278
Eastern Province	16.1%	4.4%	88.0%	0.5%	6.5%	0.6%	1.1%	0.3%	0.5%	353
Q1	10.5%	2.8%	95.3%	0.5%	5.8%	0.4%	1.6%	0.4%	0.8%	257
Q2	11.9%	4.2%	92.4%	0.6%	5.6%	0.9%	1.4%	0.7%	0.6%	294
Q3	15.0%	4.5%	91.3%	0.7%	7.4%	0.7%	1.7%	1.1%	0.5%	308
Q4	13.5%	4.1%	89.0%	0.9%	5.4%	-0.2%	0.8%	1.1%	0.4%	314
Q5	18.1%	6.0%	85.9%	1.3%	8.3%	1.0%	1.2%	0.8%	0.2%	228

Base: Agricultural households. Source: EICV2.

### 3.4 Wage income

Wage income is disaggregated into six sub-components, reflecting the type of work (farm/non-farm) and the form of payment (cash or in kind). The figures in this section are reported for the whole population, so including zero values.

Wage income is driven by the largest sub-component, non-farm wage income, which is a characteristic income component of the highest consumption quintile. Mean real non-farm wage income is on average about seventimes higher than farm wage income. Moreover, the mean total real wage income in the top quintile is about 7.5 times larger than in the fourth quintile.

Interestingly, the median value of non-farm wage is much lower, indicating that at a low level of wages, farm and non-farm wages do not differ much. The value of non-farm wages are skewed significantly towards the top end. The mean non-farm real wage for the fifth quintile is about 10 times higher than for the fourth quintile. The mean real farm wages in cash decreases with higher consumption quintiles (Table 3.8), reflecting the fact that many fewer people undertake this work in higher quintile groups.

The provision of housing by employers and other benefits plays a minor role in wage income. Like non-farm income, both are significant only at the top end (Table 3.8). For instance, in the fourth and fifth quintiles combined they generate higher mean value than mean total wage income of the bottom three quintiles.

**Table 3.8 Real household wage income: Mean values of sub-components (RWF)**

	Farm		Non-farm		Provision of house	Provision of other benefits	Total wage income	No. of HHs(000s)
	Cash	In kind	Cash	In kind				
All Rwanda	11,480	1,287	82,169	5,814	3,120	5,175	109,045	2,253
Kigali City	5,925	627	424,862	34,000	13,201	20,968	499,583	223
Southern Province	11,566	522	35,402	1,922	1,079	2,443	52,934	549
Western Province	11,478	1,296	37,946	3,087	2,708	2,478	58,993	528
Northern Province	13,849	2,316	60,825	3,468	2,499	6,693	89,650	411
Eastern Province	11,890	1,546	47,420	2,565	1,900	2,903	68,224	542
Q1	14,877	470	9,738	195	63	5	25,348	381
Q2	13,563	812	12,685	328	75	73	27,536	415
Q3	12,405	1,264	18,206	513	165	65	32,618	448
Q4	11,227	1,435	32,760	1,581	492	647	48,142	490
Q5	6,763	2,147	292,653	22,889	12,825	21,727	359,004	519

Base: All households. Real values, base 2011. Source: EICV3.

In aggregate, just over 90% of wage income comes from the cash wages, about 45% from farm and the other 45% from non-farm wages (Table 3.9). In-kind wage income represents about 6% of the total, whereas provision of housing and other benefits account for about 2%. While in aggregate the non-farm and farm wages comprise similar proportions of total income wage, the difference is starker when one looks at the provincial level. Kigali City derives 83% of wage income from non-farm wages, while the other provinces rely more on farm wage income. Similar statistics can be deduced from quintile disaggregation. About 70% of wage income in the lowest quintile is from farm wages and 30% non-farm wages. However, nearly the reverse is true for the fifth quintile, which also derives 7% of total wage income from housing and other benefits.

Provision of a house and provision of other benefits has declined from about 4% in EICV2 to 3% in EICV3 and the share of in-kind wages has increased by about 1% of total income.<sup>6</sup>

<sup>6</sup> For EICV2 wage income shares see Table A.6.

**Table 3.9 Wage Income: income shares sub-components, EICV3**

EICV3	Farm		Non-farm		Provision of house	Provision of other benefits	No. of HHs(000s)
	Cash	In kind	Cash	In kind			
All Rwanda	46.6%	2.6%	45.3%	3.1%	1.1%	0.9%	2,253
Kigali City	11.3%	0.5%	74.5%	8.7%	2.2%	2.4%	223
Southern Province	54.8%	1.3%	39.7%	2.0%	0.8%	0.7%	549
Western Province	48.3%	3.6%	43.1%	3.1%	1.0%	0.7%	528
Northern Province	47.4%	3.7%	43.6%	2.4%	1.1%	1.0%	411
Eastern Province	52.7%	3.0%	40.5%	2.0%	1.0%	0.6%	542
Q1	68.8%	1.8%	27.9%	0.7%	0.2%	0.0%	381
Q2	60.7%	2.3%	34.8%	1.1%	0.2%	0.1%	415
Q3	51.6%	3.0%	43.0%	1.4%	0.4%	0.2%	448
Q4	40.4%	3.2%	51.5%	2.8%	0.8%	0.8%	490
Q5	15.8%	2.5%	66.3%	8.6%	3.5%	3.1%	519

Base: All households. Source: EICV3.

### 3.5 Business income

Real business income has seen a sevenfold increase at the national level between the time EICV2 and EICV3 were conducted, although as noted before this is driven by some high values at the top end. Moreover, revenues have increased by 191% and costs by 134% over this period (Table 3.10).

As is the case with non-farm wages, business income is heavily skewed towards the top consumption quintile; on average, it is about five times larger than in the fourth consumption quintile for EICV3 data. One may therefore seek to suggest that businesses are more profitable at the top end, but the data do not support this hypothesis; the revenue-to-costs ratio is about the same for the fourth and fifth quintiles (about 1.35).<sup>7</sup> Another remarkable fact is that Kigali City has on average even higher real business income than the mean in the fifth consumption quintile.

The lower four quintiles have seen a faster growth in the mean values of real business income than the fifth. For instance, this statistic is 8.3 times higher and 11.5 times higher in EICV3 than in EICV2 for the fourth and third quintiles respectively. This increase is driven mostly by the increase in Kigali City, which has seen a 33-fold increase in the mean value of real business income. Based on mean values, Kigali City has become a centre for own-business activity at the time of the EICV3, unlike five years prior in EICV2.

**Table 3.10 Real business income: Mean values (RWF)**

	Revenue	Costs	Total business income	No. of HHs (000s)
EICV3	219,593	160,394	59,199	2,253
EICV2	75,587	67,114	8,474	1,892

Real values, base 2011. Source: EICV2, 3.

Over 40% of households report self-employment as a source of income, which constitutes 10.5% of total income in Rwanda under EICV3, up from 3.7% under EICV2. This is highest in Kigali City, where about one-fifth of income comes from own businesses. About one-third of households in the lowest consumption quintile report their own-business activity and about half of highest quintile households. At the same time, the lowest quintile reports that own business contributes 5.2% of total income while the top quintile reports almost one-fifth of total income as coming from self-employment. Own business is a significant source of income among the higher quintiles but constitutes only a marginal share of income among lower quintiles. Nevertheless, this is up from 1% and 9% in the bottom and top quintiles respectively in EICV2.

While there has been an almost sevenfold increase in mean business income between the two surveys, increasing from RWF 8,474 to RWF 59,199 in 2011 prices (Table 3.9), the median income from business shows a much smaller increase between EICV2 and EICV3 of only 27%; the large mean values are driven by some high individual incomes.

<sup>7</sup> For real business income disaggregation by quintiles and provinces see Annex A.

Poorer households pay less on labour and non-labour costs compared to richer households (Table 3.11).

**Table 3.11 Business revenues and business costs as a percentage of total business income**

	EICV3		EICV2	
	Revenue	Costs	Revenue	Costs
All Rwanda	396.7%	296.7%	421.5%	321.5%
Kigali City	332.5%	232.5%	396.9%	296.9%
Southern Province	397.8%	297.8%	469.1%	369.1%
Western Province	524.4%	424.4%	360.1%	260.1%
Northern Province	397.3%	297.3%	438.8%	338.8%
Eastern Province	295.8%	195.8%	442.1%	342.1%
Q1	295.5%	195.5%	329.5%	229.5%
Q2	366.6%	266.6%	385.8%	285.8%
Q3	420.6%	320.6%	490.9%	390.9%
Q4	430.9%	330.9%	377.4%	277.4%
Q5	414.3%	314.3%	444.0%	344.0%

Base: All households. Source: EICV2, EICV3.

### 3.6 Rental income

Rental income has increased by about 50% from RWF 13,159 to RWF 19,866 at the national level between EICV2 over EICV3. This is driven by imputed rents attributed to owner occupiers, which is by far the largest share. The composition of rental income remains very similar between EICV2 and EICV3. Sharecropping and rent of agricultural equipment mean income is much smaller than imputed dwelling rents, though this increases by about 100% between the two surveys (Table 3.12).

The mean income from rents is roughly four times higher in Kigali than the remaining four provinces (Table A.4 and Table A.5). This is true for both EICV2 and EICV3 data. Imputed rents have increased by 70% in Kigali and by about the same rate in the Northern and Eastern provinces, though less in the other two provinces. By contrast, the mean rent from agricultural equipment and sharecropping is lowest in Kigali, reflecting lower agricultural activity. It has increased most in the Eastern Province, by 135%, but least in Kigali and the Southern Province, by 19% and 60% respectively. Most rental income is generated in the top quintile; mean total income from rents is about four times higher in the fifth quintile than in the fourth.

**Table 3.12 Real rental income: mean values (RWF)**

	Rent of land sharecropping and agricultural equipment	Imputed rent of owner-occupied dwelling	Total rental income	No. of HHs(000s)
EICV3	669	19,197	19,866	2,253
EICV2	356	12,802	13,159	1,892

Base: All households, January 2011 values. Source: EICV2, EICV3.

Income share from rents also does not change considerably with the increase in consumption; this is evidenced by the quintile disaggregation, which implies that imputed rents constitute between 95% and 96% of total rental income (Table 3.13).

**Table 3.13 Rental Income: income shares**

	EICV3		EICV2	
	Agricultural equipment	Imputed rent	Agricultural equipment	Imputed rent
All Rwanda	4.6%	95.4%	3.4%	96.6%
Kigali City	4.3%	95.7%	3.8%	96.2%
Southern Province	3.6%	96.4%	3.1%	96.9%
Western Province	6.0%	94.0%	3.8%	96.2%
Northern Province	3.6%	96.4%	2.7%	97.4%
Eastern Province	5.1%	95.0%	3.7%	96.3%
Q1	4.1%	95.9%	2.8%	97.2%
Q2	4.3%	95.7%	2.8%	97.2%
Q3	4.5%	95.6%	3.5%	96.5%
Q4	4.8%	95.2%	3.7%	96.3%
Q5	5.2%	94.8%	4.0%	96.1%

Base: All households. Source: EICV2, EICV3.

### 3.7 Income from transfers

The mean value of transfers in real terms has nearly quadrupled over the time period when the two surveys took place from RWF 7,225 to RWF 26,378. The largest increase was in private transfers not classified as remittances and not in-kind (which account for around half of all transfers). Remittances and transfers in-kind grew at a slower pace but still more than doubled over the time period. Public transfers and other private transfers increased by seven times their real value in EICV2 (Table 3.14).

By province, remittances doubled in Kigali, where households on average receive RWF 21,000 per annum. Other provinces also saw an increase but report average income from remittances between RWF 2,200 and RWF 3,700. By quintile, remittances are by far the biggest in the fifth quintile and decline with lower quintiles, although growth in excess of 100% is recorded in lower quintiles.

The mean level of real public transfers in Northern Province is negligible in EICV2, but increased over time and now exceeds the level of Kigali in EICV3. A substantial increase is also evident in the Southern and Western provinces. Overall, the inequality in mean value of public transfers per household by province has decreased between the two surveys.

**Table 3.14 Real income from transfers: mean values (RWF)**

	Remittances	Other transfers in-kind	Other private transfers	Public transfers	Total income from transfers	No. of HHs (000s)
EICV3	4,788	8,059	6,229	7,302	26,379	2,253
EICV2	2,192	3,158	837	1,037	7,225	1,892

Base: All households. January 2011 values. Source: EICV2, EICV3.

As stated in section 3.2, public transfers' share of total income increased between the two surveys, while the share of private transfers has declined. In-kind transfers are the most important source of transfer income in both years (55% in EICV3 and 82% in EICV2), but they comprise a lower share of transfer income in Kigali City compared to other provinces. They also contribute less in the highest consumption quintile (Table 3.15 and Table 3.16). Remittances account for 15% of income from transfers. Remittances account for a higher share of income from transfers among higher consumption households and in Kigali City. In both survey periods they comprise about one-quarter of income from transfers in Kigali City and one-fifth in the top quintile. In EICV3, public transfers represent a higher share in the Northern and Western provinces and least in the Eastern Province, which may be due to the mean values of public transfers (Table 3.14).

**Table 3.15 Income from transfers: income shares, EICV3**

	Remittances	Other transfers in kind	Other private transfers	Public transfers	No. of HHs (000s)
All Rwanda	14.8%	54.5%	3.6%	27.1%	2,253
Kigali City	24.0%	36.1%	13.0%	26.9%	223
Southern Province	15.4%	58.1%	1.6%	25.0%	549
Western Province	11.3%	54.1%	2.6%	32.0%	528
Northern Province	10.8%	48.0%	3.2%	37.9%	411
Eastern Province	16.8%	63.8%	3.1%	16.4%	542
Q1	10.2%	54.2%	1.5%	34.0%	381
Q2	11.9%	57.8%	1.8%	28.5%	415
Q3	13.0%	57.1%	1.8%	28.1%	448
Q4	15.1%	56.9%	2.6%	25.5%	490
Q5	21.7%	47.6%	9.2%	21.6%	519

Base: All households. Source: EICV3.

**Table 3.16 Income from transfers: income shares, EICV2**

	Remittances	Other transfers in kind	Other private transfers	Public transfers	No. of HHs (000s)
All Rwanda	12.9%	82.1%	3.0%	2.1%	1,892
Kigali City	26.2%	65.3%	2.4%	6.1%	177
Southern Province	14.3%	82.0%	2.3%	1.3%	499
Western Province	10.9%	85.0%	2.6%	1.5%	448
Northern Province	8.1%	87.7%	3.3%	0.9%	347
Eastern Province	13.4%	79.3%	3.9%	3.4%	421
Q1	9.8%	88.0%	1.8%	0.4%	329
Q2	11.0%	86.6%	1.4%	1.0%	353
Q3	10.4%	84.4%	3.8%	1.5%	368
Q4	12.5%	82.5%	2.7%	2.3%	398
Q5	19.2%	71.6%	4.6%	4.6%	444

Base: All households. Source: EICV2.

Among public transfers, government donations, social security, and educational scholarships disburse the highest mean values of transfers. Other mean values of mean transfers are lower by a magnitude, although VUP Direct support and food relief account for about one-tenth of the total mean amount. We now consider individual (single) public transfers to find out which programme disburses more money, on average.

**Table 3.17 Frequency and mean amount of public transfers per capita (RWF) by type**

	Public transfer		
	% of HHs receiving benefit	Mean amount among those HHs receiving benefit (RWF in 2011 prices)	No. of HHs(000s)
All Rwanda	87.60%	4,596	1,973
Urban	83.10%	23,447	275
Rural	88.30%	1,541	1,698
Social security	0.80%	499,842	18
VUP Direct support	0.90%	74,846	21
Old age grant	0.40%	48,060	8
FARG	1.80%	87,477	41
Local government education support	0.80%	21,748	18
Educational scholarships	9.00%	78,864	202
Food relief	1.50%	34,985	34
Termination of employment allowance	0.70%	198,708	16
Government donations	82.10%	23,551	1,849
Other benefits	18.30%	31,509	412

Table 3.17 shows the importance of each type of public transfer. On average, 87.6% of households received at least one transfer. Government donations are by far the most common transfer with 82% of households receiving them. Other frequent transfers are educational scholarships (9%) and other benefits (18.3%). Column two shows the average amount received per type of transfer, among households that received them. While the average amount of transfer is RWF 4,596, the figures vary considerably depending on the type. Transfers related to social security and termination of employment allowance on average disburse the largest amount of transfer (RWF 499,843 and RWF 198,708 respectively), but very few households receive these. Other benefits, such as government donations or other benefits, reach a large number of households but their value is small.

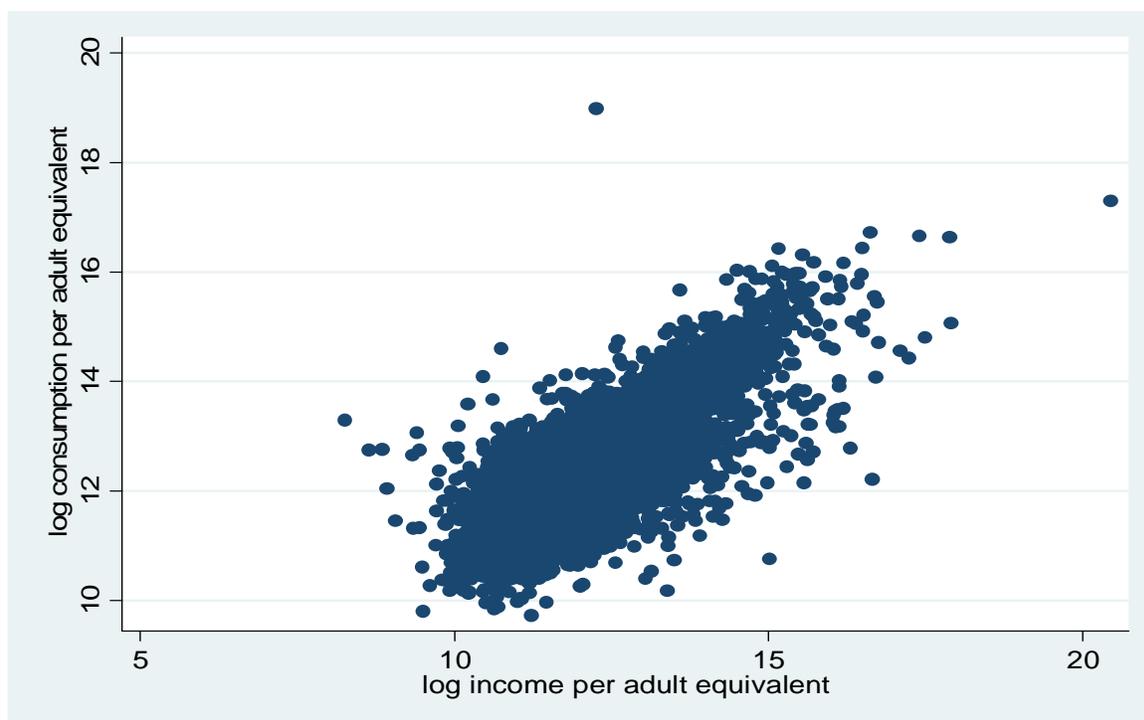
## 4 Comparison of estimated household income and consumption

The previous section explored the level and components of household income in EICV3 and compared it with results from EICV2. The overall picture suggests a significant increase in income over time. The present section investigates further the results by employing robustness checks on the quality of the income data. First, a comparison of income with consumption data is provided and, second, the cumulative distribution of income over time is analysed.

### 4.1 Income and consumption

To check the reliability of the income data and the robustness of the analysis provided, income data are compared with consumption. It is to be noted that income and consumption are not directly comparable as they represent two distinct concepts. However, both measures are often used as indicators of welfare and a high correlation is expected between the two measures at the household level. Figure 4.1 scatters the logarithm of income versus consumption for EICV3. As expected, the measures are highly correlated (correlation coefficient equal to 0.8). On average, the higher the level of income the higher the level of consumption. This result is of interest *per se* and it also represents a positive check on the quality of the income data used.

**Figure 4.1** Scatterplot of the logarithm of household income versus consumption per adult equivalent



Base: All households. Source: EICV3.

**Table 4.1 Mean consumption and income per capita (RWF) and ratio of consumption to income**

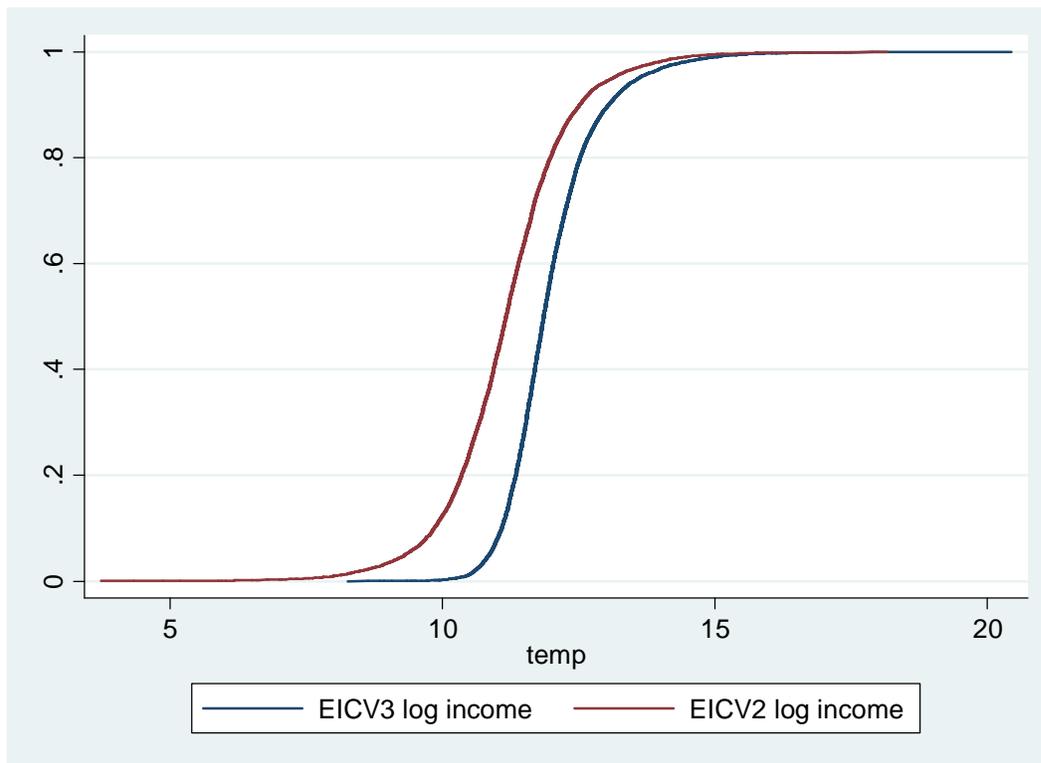
	Consumption	Income	Ratio	No. of HHs (000s)
All Rwanda	308,993	289,337	1.07	2,253
Kigali City	936,761	950,342	0.99	223
Southern Province	248,610	184,651	1.35	549
Western Province	220,385	217,873	1.01	528
Northern Province	232,378	247,613	0.94	411
Eastern Province	255,659	223,945	1.14	542
Q1	119,027	81,689	1.46	600
Q2	152,697	114,127	1.34	468
Q3	197,380	147,480	1.34	429
Q4	269,095	216,627	1.24	390
Q5	992,427	772,757	1.28	367

Base: All households, January 2011 prices. Source: EICV3.

## 4.2 Cumulative distribution of income (EICV2 and EICV3)

Having checked the robustness of the income data, the results obtained in the previous sections are further investigated here by plotting the cumulative distribution functions (CDFs). The CDFs of income per adult equivalent are created by plotting the log of per adult equivalent income on the horizontal axis and the cumulative probabilities on the vertical axis. Figure 4.2 shows the distribution of the log of income for EICV2 and EICV3. It exhibits a positive shift in the whole distribution as the CDF for EICV3 is always below the CDF for the previous year, indicating that income increased for all percentiles over time. Moreover, the more significant increase occurs at the top end of the distribution.

**Figure 4.2** Cumulative distribution of income in EICV2 and EICV3 per adult equivalent



Base: All households. Source: EICV3.

## 5 Transfers

The analysis of income above has shown that households also earn income from receipts of transfers as well as from working. These transfers may originate from private sources – often from other households who send remittances, which may be from within the country or outside –or may come from public sources. The latter are very clearly influenced by policy, but policy as well as the state of development of the financial sector can also make it easier or more difficult for households to send and receive transfers. This section focuses on remittances while the following section focuses mostly on public transfers. The analysis in these sections focuses only on EICV3.

Table 5.1 shows that by far the largest number of transfers sent is within Rwanda; a small number are sent to other countries in Africa but almost none outside Africa. However, sending remittances within Rwanda is widespread. These transfers may be sent in cash or in kind.

**Table 5.1 Percentage of households sending money or goods in kind to an absent member of the household or other people during the last 12 months (%)<sup>8</sup>**

	Households sending transfers to:				No.of HHs (000s)
	Rwanda	Africa	Outside Africa	Not specified	
All Rwanda	95.4	3.0	0.2	0.1	2,253
Kigali City	89.1	5.0	1.3	0.0	223
Southern Province	95.8	2.0	0.0	0.1	549
Western Province	97.6	2.9	0.1	0.1	528
Northern Province	95.9	1.7	0.0	0.0	411
Eastern Province	95.2	4.4	0.1	0.0	542

Base: All households. Source: EICV3.

However, Table 5.2 shows that the median amounts sent are quite small, at RWF 5,000 at the national level. The amounts are much bigger for senders based in Kigali and lower in the Southern and Northern provinces.

There is often a particular interest in transfers which cross national borders, even if these have been shown above to affect very few households. Table 5.3 shows the median amounts sent abroad annually are much bigger than the amounts sent internally, although only 1.5% of households send cash and only 2.1% send food. Table 5.4 reveals the proportion of these transfers are often made in cash and in kind.

<sup>8</sup> Transfers include cash, food, or other in-kind products. The beneficiary is an absent member of the household or other people who live in the same town/village or other towns/villages (labelled as 'Rwanda'), in other African countries ('Africa') or in different countries outside Africa ('Outside Africa').

**Table 5.2 Sum of the cash sent by each household in the last 12 months to an absent member of the household or other people (median)<sup>9</sup> (RWF)**

Amount of cash sent	Median	No.of HHs (000s)
All Rwanda	4,566	2,155
Kigali City	20,988	202
Southern Province	3,331	526
Western Province	4,388	516
Northern Province	3,701	395
Eastern Province	4,130	516

Base: All households sending transfers. Source: EICV3.

**Table 5.3 Amount of cash per household sent abroad in the last 12 months to an absent member of the household or other people (median)<sup>10</sup> (RWF)**

Amount of cash sent abroad per HH	Median	Number of HHs(000s)
All Rwanda	14,239	2,155
Kigali City	44,302	202
Southern Province	3,766	526
Western Province	4,874	516
Northern Province	4,335	395
Eastern Province	9,237	516

Base: All households sending transfers. Source: EICV3.

<sup>9</sup>As households might send more than one transfer, all the transfers made by each household are summed up. The median value is taken to show the amount of cash households sent in the last 12 months.

<sup>10</sup>As households might send more than one transfer, all the transfers made by each household are summed up. The median value is taken to show the amount of cash households sent in the last 12 months.

**Table 5.4 Percentage of households who sent abroad cash, food or other in-kind products in the last 12 months to an absent member of the household or other people (%)**

% of HHs sending abroad:	Cash	Food	Other inkind	No. of HHs (000s)
All Rwanda	1.5	2.1	0.7	2,253
Kigali City	4.1	1.9	2.4	223
Southern Province	0.6	1.8	0.3	549
Western Province	1.3	2.5	0.4	528
Northern Province	0.7	1.3	0.2	411
Eastern Province	2.0	2.7	0.9	542

Base: All households. Numbers of households are reported in thousands. Source: EICV3.

Table 5.5 and those which follow then turn to transfers received. These data exhibit much the same patterns – in that almost all transfers are internal to the country and the annual amounts are small (Table 5.6) – but in this case those received from abroad do tend to be bigger than those sent internally (Table 5.7). As before, however, often these transfers are also received in kind (Table 5.8).

**Table 5.5 Percentage of households receiving money or goods in kind from absent member of the household or other people during the last 12 months (%)<sup>11</sup>**

	HHs receiving transfers from:				No. of HHs (000s)
	Rwanda	Africa	Outside Africa	Not specified	
All Rwanda	96.3	3.1	1.4	0.1	2,253
Kigali City	89.9	5.8	7.6	0.0	223
Southern Province	96.3	1.9	0.5	0.1	549
Western Province	98.7	3.6	0.7	0.3	528
Northern Province	97.0	2.0	0.6	0.1	411
Eastern Province	95.8	3.4	0.9	0.1	542

Base: All households. Source: EICV3.

<sup>11</sup>Transfers include cash, food, or other in-kind products. The person sending transfers is an absent member of the household or other people who lives in the same town/village or other towns/villages (labelled as 'Rwanda'), in another African country ('Africa') or in different country outside Africa ('outside Africa').

**Table 5.6 Sum of cash per household received in the last 12 months from absent member of the household or other people internally (median)<sup>12</sup> (RWF)**

	Median amount of money received	Number of HHs (000s)
All Rwanda	5,266	2,176
Kigali City	19,449	204
Southern Province	4,363	530
Western Province	5,266	522
Northern Province	4,695	399
Eastern Province	4,746	521

Base: All transfers. Source: EICV3.

**Table 5.7 Amount of cash per household received from abroad in the last 12 months from absent member of the household or other people (median)<sup>13</sup> (RWF)**

	Median amount of money received	No.of HHs(000s)
All Rwanda	43,048	2,176
Kigali City	119,061	204
Southern Province	14,248	530
Western Province	17,049	522
Northern Province	23,255	399
Eastern Province	30,376	521

Base: All transfers. Source: EICV3.

**Table 5.8 Percentage of households who received from abroad cash, food or other in-kind products in the last 12 months**

% of HHs receiving from abroad:	Cash	Food	Other inkind	No.of HHs(000s)
All Rwanda	2.6	1.8	2	2,253
Kigali City	8.5	2.8	5.6	223
Southern Province	1.4	1.1	1.6	549
Western Province	2.3	2.6	1.4	528
Northern Province	1.3	1.7	0.8	411
Eastern Province	2.6	1.5	2.4	542

Base: All households. Source: EICV3.

<sup>12</sup>As households might receive more than one transfer, all the transfers received by each household are summed up. The median value is taken to show the amount of cash households received in the last 12 months.

<sup>13</sup>As households might receive more than one transfer, all the transfers received from abroad by each household are summed up. The median value is taken to show the amount of cash households sent abroad in the last 12 months.

It is almost always the case that remittances are sent via non-bank channels (Table 5.9). The total amounts in received are reported in aggregate in Table 5.10.

**Table 5.9 Channel of money transfer (of households receiving cash)**

	Channel of money transfer			Total	Number of HHs(000s)
	Banks	Non-Banks	Both banks and non-banks		
All Rwanda	0.9	96.3	2.8	100	1,195
Kigali City	4.7	89.1	6.3	100	124
Southern Province	0.3	98.4	1.3	100	303
Western Province	0.7	96.9	2.3	100	296
Northern Province	0.3	96.6	3.1	100	190
Eastern Province	0.6	96.3	3.2	100	283

Base: All cash transfers. Source: EICV3.

**Table 5.10 Total amount of cash received (total and abroad only)**

	Aggregate cash received	No.of HHs	Aggregated cash (from abroad only)	No.of HHs(000s)
	Total (RWF)		Total (RWF)	
All Rwanda	264,837,651	2,176	140,330,276	2,176
Kigali City	15,658,126	204	8,878,301	204
Southern Province	5,903,403	530	2,363,951	530
Western Province	7,248,623	522	4,318,902	522
Northern Province	5,488,409	399	3,467,033	399
Eastern Province	8,496,651	521	3,691,557	521

Base: All cash transfers. Source: EICV3.

## 6 Other public and private transfers

The report now looks at receipts of public transfers. Most households report receipts of government donations, such as bed-nets. Moreover, some quite high values are also reported for the unspecified miscellaneous category and for educational scholarships in the Western and Eastern provinces.

The majority of other sources are very small or negligible, including direct support from VUP. For the most part patterns do not vary much by province, with the exception of educational scholarships.

**Table 6.1 Percentage of households receiving public benefits during the last 12 months (%)**

	Social Security	VUP Direct Support	Old Age Grant	FARG	Local government education	Educational scholarships	Food relief	Allowance dismissal or termination employment	Government donations	Others	No public transfers
All Rwanda	0.8	0.9	0.4	1.8	0.8	9.0	1.5	0.7	82.1	18.3	12.5
Kigali City	1.7	0.7	0.2	3.3	0.3	4.1	0.5	1.5	79.8	1.0	17.0
Southern Province	0.7	0.8	0.2	2.1	0.2	2.8	1.2	0.6	83.4	12.7	13.6
Western Province	0.7	0.7	0.3	1.2	1.5	15.4	2.3	0.6	83.3	25.6	9.7
Northern Province	0.8	1.1	0.6	0.6	0.6	6.2	1.4	0.5	85.3	27.3	9.6
Eastern Province	0.6	1.2	0.5	2.3	1.0	13.1	1.6	0.8	77.9	17.1	14.4

Base: All households Source: EICV3.

Table 6.2 reports on other private sources. Here the more important sources are property rent, private contribution to health treatment and the miscellaneous category, followed by dowry or inheritance; most others are very small or negligible. In this case there are no significant variations by province.

**Table 6.2 Percentage of households receiving transfers from private source during the last 12 months (%)**

	Pension from private sector	Private savings fund	Insurance dividends	Dowry or inheritance	Gambling, lottery, tombola	Sale of land	Sale of assets	Contribution for meals provided	Property rent	NGO/ Charity	Private contribution to health treatment	Others	No private transfers
All Rwanda	0.3	0.3	0.2	4.2	0.6	6.8	9.2	0.3	11.7	2.4	10.4	7.9	8.6
Kigali City	0.2	0.3	0.2	2.2	0.6	3.9	5.9	1.0	19.4	6.2	7.8	5.9	8.1
Southern Province	0.1	0.2	0.1	2.9	0.7	5.2	11.5	0.2	10	1.7	12.3	7.4	8.3
Western Province	0.2	0.1	0.3	4.5	0.3	8.9	6.2	0.3	11.9	1.8	10.4	13.4	9.7
Northern Province	0.9	0.6	0.2	4.7	0.9	7.9	14.9	0.3	11.3	2.6	10.4	6.3	9.4
Eastern Province	0.2	0.4	0.4	5.7	0.4	6.8	7.0	0.2	10.4	2.1	9.7	4.9	7.6

Base: All households. Source: EICV3.

## 7 Access to credit

In this final section we briefly consider households' access to credit. The extent of access to credit is summarised in tables 7.1 and 7.2, distinguishing households who have or have had credit, those who have not requested credit and those who did request but were refused. Around one-quarter of households have not asked for credit; among those that did, almost everyone received credit. There is no obvious story of credit rationing apparent here.

The pattern is very similar in EICV2 as for EICV3, but 14% more households had a loan in EICV3 than was the case in EICV2.

The source of credit is presented in Table 7.3; informal lenders are the dominant source in EICV3 and relatives/friends in EICV2 (although informal sources, which are quite likely to be friends and family anyway, is not listed as an option in EICV2). Tontine was quite an important secondary source in EICV3 but a bit less so in EICV2; cooperatives were also quite an important secondary source in EICV2 and to some extent in EICV3. Most other sources are less important, including commercial banks. The main reason for borrowing is to purchase a household item, though loans for business expansion are also important as is the unspecified miscellaneous category (Table 7.4).

**Table 7.1 Households with access to credit, EICV3**

EICV3	Access to credit		Unknown	No access to credit	Total no. of HHs (000s)
	HH currently has a loan	HH currently has no loan, but had credit during the past 12 months	HH currently has no credit because did not request	HH currently has no credit because failed to get access	
All Rwanda	59.9	13.8	25.6	.7	2,253
Kigali City	62.8	13.0	23.3	.9	223
Southern Province	59.4	12.1	28.0	.5	549
Western Province	61.5	14.0	23.8	.8	528
Northern Province	52.6	13.8	33.1	.4	411
Eastern Province	63.0	15.7	20.4	.8	542
Urban	59.3	12.2	27.7	.7	331
Rural	60.0	14.1	25.3	.7	1,922
Q1	61.8	12.3	24.9	.9	381
Q2	61.8	14.0	24.0	.3	415
Q3	61.2	14.0	24.3	.5	448
Q4	59.5	13.5	26.4	.6	490
Q5	56.1	14.8	28.1	1.0	519

Base: All households. Source: EICV3.

**Table 7.2 Households with access to credit, EICV2**

EICV2	Access to credit		Unknown	No access to credit	Total no. of HHs (000s)
	HH currently has a loan	HH currently has no loan, but had credit during the past 12 months	HH currently has no credit because did not request	HH currently has no credit because failed to get access	
All Rwanda	45.9	11.9	40.7	1.4	1,892
Kigali City	34.7	8.1	55.2	2.1	177
Southern Province	50.0	14.3	34.5	1.2	499
Western Province	49.6	9.8	38.9	1.6	448
Northern Province	41.6	10.7	46.5	1.2	347
Eastern Province	45.6	14.0	38.9	1.5	421
Urban	35.7	9.2	53.0	2.0	311
Rural	47.9	12.4	38.3	1.3	1,581
Q1	47.0	9.7	42.0	1.2	329
Q2	45.4	12.5	40.6	1.5	353
Q3	46.1	12.5	40.4	.9	368
Q4	46.9	11.9	39.3	1.9	398
Q5	44.7	12.6	41.2	1.5	444

Base: All households. Source: EICV2.

**Table 7.3 Percentage of households receiving credit from various sources by province and urban/rural**

EICV3	% of HHs with credit from...									Total no. of HHs with a loan (000s)
	State bank	Commercial bank	Relatives/family	Credit cooperative	Tontine (community)	Informal lenders	Microfinance	VUP loan	Other sources	
All Rwanda	1.0	5.1	27.0	7.6	19.6	56.4	1.2	1.5	4.6	1659
Kigali City	2.1	13.6	15.7	6.6	5.1	74.9	2.7	0.3	2.0	169
Southern Province	0.6	4.4	27.2	6.2	16.3	58.8	1.0	1.6	4.0	392
Western Province	0.8	3.6	45.2	7.8	19.2	40.7	0.8	1.1	3.9	398
Northern Province	1.3	5.2	23.8	7.3	36.5	44.1	0.8	1.5	3.0	273
Eastern Province	1.0	3.8	16.5	9.3	18.2	69.3	1.3	2.1	7.8	427
Urban	1.9	13.1	17.5	7.4	8.3	66.7	2.3	0.8	2.5	237
Rural	0.9	3.8	28.6	7.7	21.5	54.7	1.0	1.6	4.9	1422

Base: All households currently with a loan. Source: EICV3.

EICV2	% of HHs with credit from...												Total no. of HHs with a loan (000s)
	State bank	Private bank	Popular bank	COOPEC	Agri-cultural society	Co-operative	Employer	Other modern institution	Lender	Relative/friend	Tontine (community)	Other traditional institution	
All Rwanda	0.9	1.4	5.8	4.8	6.0	12.2	0.5	2.2	1.3	68.9	6.2	2.3	1094
Kigali City	1.6	7.1	8.7	14.7	1.8	12.7	4.2	2.2	2.2	49.1	3.7	3.2	76
Southern Province	0.8	0.6	5.3	4.2	7.4	10.1	0.3	2.1	.6	73.0	5.1	2.8	320
Western Province	1.3	1.6	5.7	4.6	3.4	12.4	0.1	2.2	2.5	72.5	5.9	1.3	266
Northern Province	0.7	.9	5.9	2.5	7.8	13.8	0.3	2.0	0.9	66.0	6.7	2.4	181
Eastern Province	0.6	1.1	5.6	4.4	7.1	13.3	0.2	2.5	0.7	67.7	8.2	2.2	251
Urban	1.6	5.7	10.5	12.2	1.9	13.0	2.8	1.6	2.0	52.9	2.6	2.2	140
Rural	0.8	0.8	5.1	3.7	6.6	12.1	0.2	2.3	1.2	71.2	6.7	2.3	954

Base: All households currently with a loan. Source: EICV2.

**Table 7.4 Purpose of loans**

EICV3	Percentage of loans used for..											Total no. of loans (000s)
	Agricultural equipment	Agricultural inputs	Business expansion	Home improvement	Education	Medical treatment	Ceremonial	Household items	Livestock	Others		
All Rwanda	6.8	3.2	15.3	8.3	4.8	6	3.6	30.7	2.4	18.9	3,598	
Kigali City	1.5	0.1	15	8.8	4.5	3.8	1.3	21.2	0.9	43	448	
Southern Province	6.2	2.5	12.7	5.5	4.2	5.6	3.3	35.9	3.2	20.9	797	
Western Province	9.4	4.3	16.5	7.6	6	6.2	5.1	33	2.7	9.2	838	
Northern Province	7.8	3.4	19.8	9	6.3	7.2	5.1	23.6	3.7	14.1	557	
Eastern Province	7.1	4.3	14.4	10.4	3.5	6.5	2.8	32.7	1.6	16.7	959	
Urban	2.7	0.5	16.7	8.5	5.3	4.3	2	27.6	0.9	31.6	560	
Rural	7.6	3.7	15.1	8.2	4.7	6.3	3.8	31.2	2.7	16.6	3,037	

Base: Allloans. Source: EICV3.

EICV2	Percentage of loans used for..											Total no. of loans (000s)
	Agricultural equipment	Agricultural inputs	Business expansion	Home improvement	Education	Medical treatment	Ceremonial	Household items	Livestock	Others		
All Rwanda	13.3	0.5	10	6.2	5.9	10.8	3.5	37.7	3	8.9	1,538	
Kigali City	4.4	0	19.3	14.7	6.6	6.7	3	28.7	2.7	13.9	94	
Southern Province	11.1	0.1	7.5	4.4	5	11.1	2.8	47.7	3.2	7	445	
Western Province	15.4	1.6	9.3	7	6.2	9.6	4.2	35.5	2.8	8.2	394	
Northern Province	18.9	0.3	11.4	6.4	5.5	10.6	5.1	28.7	3.5	9.7	237	
Eastern Province	12.5	0.2	10.4	5.4	6.8	13.1	2.8	36	2.7	10.2	367	
Urban	4.4	0	20.7	14.2	6.8	7.9	1.5	29	1.8	13.6	174	
Rural	14.5	0.6	8.6	5.2	5.8	11.2	3.8	38.8	3.1	8.3	1,364	

Base: Allloans. Source: EICV2.

Turning to savings (Table 7.5), 21% of households have a savings account in EICV3, up from 9% in EICV2. Furthermore, savings rates are much bigger in Kigali than elsewhere and are bigger in higher quintiles compared to lower ones.

**Table 7.5 Percentage of individuals 18+ with access to saving facilities by province, urban/rural and sex**

EICV3	% of individuals 18+ with a savings account	Total population 18+ (000s)
All Rwanda	20.6	5,395
Kigali City	37.3	593
Southern Province	17.7	1,284
Western Province	17.3	1,267
Northern Province	19.8	987
Eastern Province	19.6	1,264
Urban	33.2	869
Rural	18.2	4,526
Male	28.7	2,443
Female	13.9	2,952
Q1	9.6	894
Q2	12.9	978
Q3	15.8	1,046
Q4	20.7	1,154
Q5	37.4	1,323

Source: EICV3.

EICV2	% of individuals 18+ with a savings account	Total population 18+ (000s)
All Rwanda	9.2	4,612
Kigali City	21.9	486
Southern Province	7.1	1,213
Western Province	8.4	1,074
Northern Province	7.1	830
Eastern Province	8.1	1,009
Urban	20.3	816
Rural	6.8	3,796
Male	14.1	2,091
Female	5.1	2,521
Q1	1.7	770
Q2	2.7	857
Q3	4.7	887
Q4	8.1	961
Q5	23.5	1,137

Source: EICV2.

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## References

NISR (2012). The Evolution of Poverty in Rwanda from 2000 to 2011: Results from the Household Surveys (EICV)

NISR (2012). The Third Integrated Household Living Conditions Survey (EICV3): Main Indicators Report.

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## Annex A Selected additional tables and province and quintile disaggregations

**Table A.1 Percentage of households that obtained some income from various income sources, EICV2**

	EICV2			Total no.of HHs(000s)
	Wage income	Independent farming	Own business	
All Rwanda	27.5%	89.7%	9.9%	1,892
Kigali City	67.7%	41.0%	21.4%	177
Southern Province	25.4%	94.1%	9.2%	499
Western Province	24.0%	93.5%	7.8%	448
Northern Province	22.6%	94.9%	6.1%	347
Eastern Province	20.9%	96.4%	11.4%	421
Q1	16.9%	95.2%	5.2%	329
Q2	22.9%	95.5%	5.5%	353
Q3	20.9%	96.2%	8.0%	368
Q4	26.0%	93.1%	9.8%	398
Q5	45.9%	72.4%	18.7%	444

Base: All households. Source: EICV2.

**Table A.2 Mean per adult equivalent income and income components, EICV3 (RWF)**

	EICV3						Total income	No. of HHs (000s)
	Agriculture	Wage	Business	Public transfer	Private transfer	Rents		
All Rwanda	74,848	109,046	59,199	7,302	19,076	19,867	289,338	2,253
Kigali City	30,039	499,583	263,648	12,444	76,360	68,267	950,342	223
Southern Province	72,874	52,935	28,675	5,105	11,223	13,839	184,651	549
Western Province	68,077	58,993	57,738	7,783	12,976	12,306	217,873	528
Northern Province	97,306	89,650	15,102	12,659	15,308	17,590	247,613	411
Eastern Province	84,887	68,224	40,662	2,878	12,199	15,093	223,945	542
Q1	36,543	25,348	3,940	6,534	4,204	5,120	81,689	381
Q2	58,016	27,536	10,165	4,199	6,484	7,726	114,127	415
Q3	74,607	32,618	16,927	4,932	8,438	9,959	147,480	448
Q4	95,717	48,142	36,953	8,109	12,837	14,869	216,628	490
Q5	96,953	359,004	196,398	11,628	55,120	53,655	772,758	519

Base: All households, January 2011 values. Source: EICV3.

**Table A.3 Mean per adult equivalent income and income component, EICV2 (RWF)**

	Agriculture	Wage	Business	EICV2		Rents	Total income	No. of HHs (000s)
				Public transfer	Private transfer			
All Rwanda	61,006	37,664	8,474	1,037	6,187	13,159	126,872	1,892
Kigali City	24,678	223,527	7,972	5,500	16,434	39,979	317,232	177
Southern Province	53,793	21,900	6,901	514	5,195	10,699	98,424	499
Western Province	64,168	16,013	9,445	520	4,878	10,527	104,790	448
Northern Province	68,929	16,029	5,584	185	5,923	10,526	106,944	347
Eastern Province	74,951	19,001	11,898	1,032	4,662	9,757	120,404	421
Q1	20,144	2,034	469	78	1,696	4,366	28,776	329
Q2	38,570	3,151	1,275	129	2,668	6,447	52,117	353
Q3	56,220	3,751	1,472	134	3,766	7,961	73,132	368
Q4	74,731	9,012	4,465	497	5,322	10,936	104,731	398
Q5	100,821	145,316	29,528	3,703	15,098	31,315	323,447	444

Base: All households, January 2011 values. Source: EICV2.

**Table A.4 Agriculture: mean values of agricultural income and sub-components, per adult equivalent, EICV3 (RWF)**

	Revenue				Costs					Total agricultural income	No. of HHs (000s)
	Sales of crops	Sales of processed products	Own consumption	Sales of small livestock/products	Crop inputs	Inputs processing products	Cost of renting land	Expend on livestock	Depreciation of agricultural equipment		
All Rwanda	20,621	9,182	89,042	1,852	6,415	1,438	1,205	1,667	319	109,652	1,088
Kigali City	19,973	34,654	86,652	3,451	6,418	2,324	676	3,008	324	131,979	24
Southern Province	18,443	8,609	77,212	2,160	5,629	1,084	1,125	1,515	278	96,794	300
Western Province	17,680	8,706	85,145	1,761	6,389	1,286	1,312	1,953	321	102,031	241
Northern Province	20,357	10,082	110,096	1,893	6,817	2,707	1,002	1,166	366	130,370	215
Eastern Province	25,278	7,527	89,125	1,473	6,923	950	1,382	1,839	324	111,985	308
Q1	5,295	1,767	44,679	462	1,848	521	553	329	153	48,800	189
Q2	10,315	3,981	63,557	904	3,104	696	857	664	226	73,210	245
Q3	17,281	6,564	81,229	1,351	5,258	1,253	1,155	1,336	281	97,142	259
Q4	27,490	10,956	108,110	2,327	8,692	1,398	1,675	2,422	396	134,299	259
Q5	53,607	30,361	174,747	5,528	16,547	4,468	1,935	4,514	639	236,140	137

Base: Agricultural households, January 2011 values. Source: EICV3.

**Table A.5 Agriculture: mean values of agricultural income and sub-components, per adult equivalent, EICV2 (RWF)**

	Revenue				Costs					Total agricultural income	No. of HHs (000s)
	Sales of crops	Sales of processed products	Own consumption	Sales of small livestock/products	Crop inputs	Inputs processing products	Cost of renting land	Expend on livestock	Depreciation of agricultural equipment		
All Rwanda	11,163	5,753	64,112	753	3,603	653	641	1,154	489	75,643	1,401
Kigali City	9,558	7,385	71,362	2,219	3,494	473	459	3,452	6,180	77,699	45
Southern Province	8,256	5,039	54,607	673	2,993	660	619	895	288	63,343	388
Western Province	9,592	5,640	68,490	451	3,605	587	927	984	230	78,373	336
Northern Province	11,009	6,333	67,027	695	3,656	640	382	662	311	79,381	278
Eastern Province	16,176	5,978	67,163	983	4,242	741	621	1,691	365	83,348	353
Q1	2,839	1,306	21,583	95	1,011	126	336	85	138	24,117	257
Q2	5,063	2,879	38,555	258	1,843	465	481	321	195	43,513	294
Q3	10,106	4,908	52,937	366	2,774	530	650	510	255	63,743	308
Q4	12,248	6,402	75,430	848	4,007	750	725	929	312	88,285	314
Q5	28,389	14,744	144,730	2,526	9,369	1,522	1,066	4,619	1,826	174,080	228

Base: agricultural households, January 2011 values. Source: EICV3.

**Table A.6 Wage income: income shares sub-components, EICV2**

EICV2	Wages		Provision of house	Provision of other benefits	No. of HHs (000s)
	Cash	In kind			
All Rwanda	91.3%	1.7%	3.9%	3.1%	1,892
Kigali City	87.1%	2.0%	5.8%	5.2%	177
Southern Province	92.8%	1.7%	3.0%	2.4%	499
Western Province	91.7%	1.3%	3.9%	3.1%	448
Northern Province	94.1%	1.1%	3.3%	1.5%	347
Eastern Province	92.0%	2.2%	3.0%	2.8%	421
Q1	97.6%	0.6%	1.4%	0.4%	329
Q2	95.5%	0.6%	2.3%	1.7%	353
Q3	96.4%	0.5%	1.4%	1.7%	368
Q4	94.9%	1.4%	2.0%	1.8%	398
Q5	84.3%	3.1%	7.1%	5.6%	444

Source: EICV2.

**Table A.7 Wage Income: Mean values of sub-components, EICV2 (RWF)**

EICV2	Wages		Provision of house	Provision of other benefits	Total wage income	No. of HHs (000s)
	Cash	In kind				
All Rwanda	30,303	1,682	2,935	2,745	37,664	1,892
Kigali City	175,295	8,736	20,706	18,790	223,527	177
Southern Province	18,148	1,295	1,232	1,225	21,900	499
Western Province	12,166	1,133	1,502	1,212	16,013	448
Northern Province	14,149	429	793	658	16,029	347
Eastern Province	16,302	790	764	1,145	19,001	421
Q1	1,983	13	19	19	2,034	329
Q2	2,933	29	90	98	3,151	353
Q3	3,444	48	103	156	3,751	368
Q4	8,442	164	243	164	9,012	398
Q5	114,919	6,949	12,117	11,331	145,316	444

Real values, January 2011 values. Source: EICV2.

**Table A.8 Business Income: Mean values, EICV3 (RWF)**

	Revenue	Costs	Total business income	No. of HHs (000s)
All Rwanda	219,593	160,394	59,199	2,253
Kigali City	649,156	385,507	263,648	223
Southern Province	119,441	90,766	28,675	549
Western Province	253,805	196,067	57,738	528
Northern Province	171,698	156,596	15,102	411
Eastern Province	146,927	106,265	40,662	542
Q1	15,604	11,664	3,940	381
Q2	33,804	23,640	10,165	415
Q3	64,505	47,578	16,927	448
Q4	130,361	93,408	36,953	490
Q5	735,768	539,369	196,398	519

Real values, January 2011 values. Source: EICV3.

**Table A.9 Business Income: Mean values, EICV2 (RWF)**

	Revenue	Costs	Total business income	No. of HHs
All Rwanda	75,587	67,114	8,474	1,892
Kigali City	353,973	346,001	7,972	177
Southern Province	31,423	24,522	6,901	499
Western Province	76,040	66,595	9,445	448
Northern Province	29,607	24,023	5,584	347
Eastern Province	48,231	36,333	11,898	421
Q1	2,045	1,575	469	329
Q2	4,728	3,452	1,275	353
Q3	7,520	6,048	1,472	368
Q4	20,851	16,385	4,465	398
Q5	291,936	262,407	29,528	444

Real values, January 2011 values. Source: EICV2.

**Table A.10 Real rental income: mean values, EICV3 (RWF)**

	Rent of land sharecropping and agricultural equipment	Imputed rent of owner-occupied dwelling	Total rental income	No.of HHs (000s)
All Rwanda	669	19,197	19,867	2,253
Kigali City	427	67,840	68,267	223
Southern Province	493	13,347	13,839	549
Western Province	801	11,505	12,306	528
Northern Province	621	16,969	17,590	411
Eastern Province	857	14,236	15,093	542
Q1	239	4,881	5,120	381
Q2	402	7,324	7,726	415
Q3	449	9,511	9,959	448
Q4	759	14,110	14,869	490
Q5	1,305	52,350	53,655	519

Real values, January 2011 values.Source: EICV3.

**Table A.11 Real rental income: mean values, EICV2 (RWF)**

	Rent of land sharecropping and agricultural equipment	Imputed rent of owner-occupied dwelling	Total rental income	No.of HHs (000s)
All Rwanda	356	12,802	13,159	1,892
Kigali City	360	39,619	39,979	177
Southern Province	307	10,393	10,699	499
Western Province	455	10,072	10,527	448
Northern Province	293	10,233	10,526	347
Eastern Province	362	9,396	9,757	421
Q1	176	4,191	4,366	329
Q2	181	6,266	6,447	353
Q3	261	7,701	7,961	368
Q4	360	10,576	10,936	398
Q5	707	30,608	31,315	444

Real values, January 2011 values.Source: EICV2.

**Table A.12 Real income from transfers: mean values, EICV3 (RWF)**

	Remittances	Other transfers inkind	Other private transfers	Public transfers	Transfers total	No.of HHs (000s)
All Rwanda	4,788	8,059	6,229	7,302	26,379	2,253
Kigali City	20,987	13,885	41,488	12,444	88,804	223
Southern Province	3,128	7,052	1,044	5,105	16,328	549
Western Province	2,733	7,786	2,457	7,783	20,759	528
Northern Province	2,211	8,798	4,299	12,659	27,966	411
Eastern Province	3,743	6,380	2,076	2,878	15,077	542
Q1	655	3,168	380	6,534	10,738	381
Q2	1,039	4,476	970	4,199	10,684	415
Q3	1,693	6,068	677	4,932	13,370	448
Q4	2,984	8,690	1,163	8,109	20,946	490
Q5	15,190	15,634	24,296	11,628	66,748	519

Real values, January 2011 values.Source: EICV3.

**Table A.13 Real income from transfers: mean values, EICV2 (RWF)**

	Remittances	Other transfers inkind	Other private transfers	Public transfers	Transfers total	No.of HHs (000s)
All Rwanda	2,192	3,158	837	1,037	7,225	1,892
Kigali City	10,384	5,224	826	5,500	21,935	177
Southern Province	2,272	2,527	396	514	5,709	499
Western Province	1,000	3,039	839	520	5,398	448
Northern Province	806	3,846	1,272	185	6,108	347
Eastern Province	1,061	2,597	1,004	1,032	5,694	421
Q1	190	1,262	244	78	1,774	329
Q2	421	1,958	289	129	2,797	353
Q3	711	2,368	687	134	3,900	368
Q4	881	3,393	1,048	497	5,819	398
Q5	7,489	5,962	1,647	3,703	18,802	444

Real values, January 2011 values.Source: EICV2.

## Annex B District disaggregation tables for selected indicators, EICV3

**Table B.1 Percentage of households sending money or goods in kind to an absent member of the household or other people during the last 12 months (%)**

	Households sending transfers to:				Number of HHs (000s)
	Rwanda	Africa	Outside Africa	Not specified	
All Rwanda	95.4	3.0	0.2	0.1	2,253
Nyarugenge	88.6	4.2	1.4	0.2	60
Gasabo	90.7	4.8	1.2	0	99
Kicukiro	87.1	6.1	1.3	0	64
Nyanza	95.9	2.0	0	0	67
Gisagara	98.3	8.7	0	0.2	74
Nyaruguru	98.8	2.8	0	0.3	61
Huye	97.1	1.6	0	0	70
Nyamagabe	94.9	0.2	0	0	71
Ruhango	92.4	0.4	0	0	71
Muhanga	98.9	0	0	0.2	63
Kamonyi	90.9	0.2	0	0	72
Karongi	98.0	0.4	0.3	0	77
Rutsiro	97.6	0.8	0	0	69
Rubavu	96.2	10.3	0.2	0.2	82
Nyabihu	99.0	1.5	0.3	0.2	68
Ngororero	98.5	0.2	0.2	0.2	74
Rusizi	95.1	4.5	0	0.2	78
Nyamasheke	98.7	2.1	0	0	80
Rulindo	95.4	0	0	0	63
Gakenke	96.2	0.4	0	0	76
Musanze	97.3	1.4	0	0	87
Burera	97.8	5.1	0	0	71
Gicumbi	93.6	1.5	0	0	113
Rwamagana	93.5	1.6	0.3	0	68
Nyagatare	97.1	7.7	0	0	84
Gatsibo	98.1	3.7	0	0	100
Kayonza	92.9	1.6	0	0.2	70
Kirehe	90.4	6.8	0	0	72
Ngoma	98.3	1.3	0	0	68
Bugesera	94.6	7.2	0.2	0	80

Base: All households. Source: EICV3.

**Table B.2 Frequency of sending transfers (money or in kind, %)**

	Frequency of transfers				Total	No.of HHs (000s)
	Daily	Weekly	Monthly	Annually		
All Rwanda	0.4	0.3	1.1	98.1	100	15,528
Nyarugenge	0	0.2	0.7	99.1	100	287
Gasabo	0.8	2.2	6.1	90.9	100	526
Kicukiro	0	0.5	3.6	95.9	100	268
Nyanza	0.1	0.3	1.2	98.4	100	452
Gisagara	0.1	0.2	1.1	98.5	100	565
Nyaruguru	0.1	0	0.2	99.6	100	487
Huye	0	0.1	0.9	98.9	100	409
Nyamagabe	1.8	0.6	1.0	96.7	100	537
Ruhango	0.7	0.3	0.9	98.2	100	401
Muhanga	0.2	0	0.2	99.6	100	555
Kamonyi	0.1	0.1	0.1	99.7	100	454
Karongi	0	0.1	0.3	99.6	100	573
Rutsiro	0.1	0.1	0.5	99.3	100	538
Rubavu	2.0	0.1	0.9	97.1	100	604
Nyabihu	0	0.4	0.7	98.9	100	589
Ngororero	0	0	1.0	99.0	100	686
Rusizi	0.8	0.6	1.1	97.6	100	481
Nyamasheke	0	0.1	0.2	99.7	100	667
Rulindo	3	0.3	1.3	95.4	100	446
Gakenke	0	0.1	0.1	99.8	100	486
Musanze	0.1	0.4	1	98.5	100	667
Burera	0.4	0.1	0.7	98.8	100	578
Gicumbi	0.4	0.4	1.2	98.0	100	792
Rwamagana	0	2.1	3.1	94.7	100	263
Nyagatare	0	0.1	0.6	99.3	100	664
Gatsibo	0.1	0.6	3.0	96.3	100	768
Kayonza	0.5	0.1	0.4	98.9	100	388
Kirehe	0.2	0.2	0.5	99.2	100	387
Ngoma	1.5	0.4	1.1	97.0	100	399
Bugesera	0.3	0.2	0.7	98.8	100	611

Base: All transfers. Source: EICV3

**Table B.3 Sum of cash per household sent in the last 12 months to an absent member of the household or other people (median)**

Amount of cash sent	Median	No.of HHs (000s)
All Rwanda	4,566	2,155
Nyarugenge	23,387	54
Gasabo	16,208	91
Kicukiro	23,562	57
Nyanza	3,389	64
Gisagara	2,612	73
Nyaruguru	2,708	60
Huye	4,355	68
Nyamagabe	1,870	68
Ruhango	2,588	66
Muhanga	3,919	62
Kamonyi	4,707	65
Karongi	2,557	75
Rutsiro	4,177	67
Rubavu	5,951	79
Nyabihu	5,823	68
Ngororero	3,441	73
Rusizi	5,967	74
Nyamasheke	4,756	79
Rulindo	3,756	60
Gakenke	3,480	74
Musanze	4,763	85
Burera	2,164	70
Gicumbi	4,814	106
Rwamagana	4,176	64
Nyagatare	4,815	82
Gatsibo	3,481	98
Kayonza	4,144	65
Kirehe	4,566	65
Ngoma	3,390	67
Bugesera	4,176	76

Base: All households. Source: EICV3.