



Rwanda National Human Development Report 2018

Policy Innovations and Human Development

Rwanda's home grown solutions

November, 2020



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Foreword

The Rwanda National Human Development Report (NHDR) 2018, Policy Innovations and Human Development: The case of Rwanda's home-grown solutions, is a major contribution to the policy discourse on Rwanda's transformation journey. By examining the contribution of innovative policies and sustainable human development, the Report identifies critical policy lessons learned that could be used to enhance outcomes in human development, improve resilience of households and achieve transformative changes in the lives of Rwandans. The Report acknowledges Rwanda's rapid economic growth and improvement in human development over the past two decades. It also highlights the opportunities that can be harnessed for enhanced and resilient human development.

Rwanda's recovery from the 1994 Genocide against the Tutsi and its rapid economic growth, about 8 per cent on average over the last 15 years, continue to be an inspiration to developing countries around the world. The more useful lessons learned for human development consist in a set of locally engineered policy innovations, the home-grown solutions (HGSs). These innovations have helped Rwanda overcome the trauma of genocide and its disastrous aftermath and set the country on a path of growth and development in less than a quarter of a century.

The Report analyses the contribution of five selected HGSs to human development progress, namely the Girinka Program (one cow per family), the Vision 2020 Umurenge Program (VUP), community-based health insurance (CBHI), Imihigo (performance contracts) and Umuganda (community work). The Report shows how and to what extent these innovations have contributed to inclusive human development, reduced vulnerability, fostered social cohesion, and perhaps more importantly, enhanced participatory and accountable governance. It should be emphasized that the latter is a fundamental factor for sustainable human development.

The Report reinforces the point that Rwanda has made general progress in human development, but challenges remain, and that there are variations in achievement across provinces and districts. This is illustrated by the results of the National Human Development Report Index (NHDI) that provides the status of human development at local level and that was calculated for Rwanda for the first time by this Report. The NHDI results indicate that Rwanda should sustain the gains, further improve human development outcomes and address inequalities. To ensure human development for all, the Report asserts that it is important to improve the alignment of the HGSs with the transformation agenda and further enhance their effectiveness. Indeed, there is significant scope to harness the potential of HGSs for synergetic impact, particularly when the interventions target the same vulnerable groups.

The Report also explores aspects of resilient human development such as human dignity, gender equality, social cohesion, citizens' participation and environmental sustainability. Building on the available literature and research provided by government bodies such as the Rwanda Governance Board, the Report highlights the contribution of HGSs in building an inclusive and environmentally sustainable economy as well as a just and cohesive society in which all citizens have the opportunity to lead productive and satisfying lives. Considering the increased vulnerability of Rwanda to climate change effects, enhancing HGSs' responsiveness to climate change effects will be critical going forward.

The implementation of the National Strategy for Transformation (NST 1 2017-2024) provides an opportunity to tackle the country's challenges while maintaining the pace of sustained growth and achieving structural transformation. In order to achieve this, significant efforts need to be focused on improving standards of living, expanding access to and the quality of education, sustaining and enhancing health service delivery, and addressing the effects of climate change. Continued policy innovation combined with efforts to integrate existing policies to foster effectiveness and efficiency will be key drivers of transformation. The Report strongly argues that HGSs have a central place in the transformation agenda, particularly in ensuring social transformation by guaranteeing that no one is left behind. They can contribute meaningfully to the achievement of Agenda 2030 and the 17 Sustainable Development Goals (SDGs).

In recognition of the enormous potential of HGSs for human development, the Report proposes several general and HGS-specific policy actions to spur more transformative innovation and achieve greater, more equitable and sustainable progress in human development. These actions include aligning HGSs to respond to the transformative agenda by ensuring appropriate scope, scale, targeting, and enhancing their implementation, etc. The Report also contributes to policy design, monitoring and knowledge management by putting into context the results management framework, including indicators and reporting systems on HGSs, and highlighting key data and information gaps.

Finally, we strongly call on policymakers and development practitioners across the development spectrum in and beyond Rwanda to read and use the experiences and recommendations from this Report. We are positive that it will provide a useful tool to spur and guide policy debate on local innovations for developing sustainable economies and inclusive societies in which human choices and freedoms are continually and sustainably expanded, without leaving anyone behind.

Stephen A. Rodriques

Resident Representative
United Nations Development Programme

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The Report was prepared under the overall guidance of Stephen A. Rodriques, the UNDP Resident Representative for Rwanda. The entire process leading to the production of this Report was commissioned, facilitated and coordinated by the UNDP Policy and Strategy Unit led by Yemesrach Workie, Senior Economic Advisor for UNDP Rwanda and Uganda. We are grateful for her steadfast leadership, critical analysis and relentless technical support and guidance right from the conceptual design through stakeholder consultations, analytical work and final reporting. We are equally indebted to Alessandro Ramella Pezza, Economist at UNDP Rwanda, for his technical inputs on the methodology and the drafts of the report as well as on the overall coordination of the production of the report and the mobilization of the relevant stakeholders. The support of Barbara Hall, consultant editor, and Evard Havugimana and Claudine Uwizeza, Program Assistants, are also gratefully acknowledged. The lead author, Charles Twesigye-Bakwatsa, provided the overall content, synthesis and narrative of the Report.

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Executive summary

The Rwanda National Human Development Report (NHDR) 2018 was inspired by the impressive progress that Rwanda has made over 15 years in the spheres of good governance, economic growth and human development, particularly considering the post-genocide challenges. HGSs have served as a catalyst towards achieving this progress. Hence, this Report, *Policy Innovations and Human Development: Rwanda's home-grown solutions* aims to analyse and document the contribution of HGSs to human development progress.

This Report analyses the contribution of home-grown solutions (HGSs), which are locally designed or adapted policy innovations to the progress made by Rwanda in human development. The Report is based on three fundamental premises: innovative policies contribute to achieving rapid economic growth and improvement in human development outcomes; citizens need to participate effectively to economic transformation to positively affect human development; and interventions must be tailored to citizens' specific needs, aspirations and socio-cultural circumstances for citizens to effectively participate in and own these development processes. Finally, HGSs, which are developed and refined locally, can effectively ensure economic transformation is inclusive, sustainable and benefits human development.

Progress in Rwanda's human development – trends, patterns and underlying factors

The Report notes that between 1990 and 2017, Rwanda's Human Development Index (HDI) value more than doubled, from 0.250 to 0.524, recording the highest average annual HDI growth in the world. The progress in HDI reflects positive developments in all human development dimensions, but mostly in the health sector. Per capita gross national income (GNI) increased from US\$1,424 in 2011 to US\$1,811 in 2017, due to sustained high economic growth rates averaging about 8 per cent. Life expectancy increased from 49 years in 2000 to 67 years in 2018. This is largely a result of increased access to healthcare, from 31 per cent in 2003 to 83 per cent in 2016. The average expected years of schooling increased from 7.2 in 2000 to 11.2 in 2017. However, actual educational attainment (mean years of schooling) increased modestly, from 2.3 in 2000 to 4.1 in 2017. It is this dimension of Rwanda's human development that has contributed the least. However, quality of education remains the priority of the government of Rwanda.

The Report shows that the trend in human development, which led to a significant improvement in the National Human Development Index (NHDI) value, slightly declined in 2016/17, partly due to a drop in household income as a result of climate change-related shocks, such as droughts, flooding and landslides that affected the country during the survey year. Kigali sustained improvement in human development over time and has the highest NHDI value. In the Northern Province, NHDI improved between 2010/11 and 2013/14, yet remained at the same level in 2016/17. However, in Eastern, Southern, and Western Provinces, NHDI values improved from 2010/11 to 2013/14, but slightly declined in 2016/17. It is important to highlight that there are notable differences in human development among provinces. While over time the Northern Province made significant progress, from being ranked fifth in terms of NHDI value in 2010/11 and 2013/14, to third in 2016/17, the Eastern Province declined, from being ranked second in 2010/11 and 2013/14, to fifth in 2016/17.

The gap in human development between provinces narrowed between 2010/11 to 2013/14, but after this period, it has widened, indicating the need for the government to effectively address these disparities by deepening its understanding of the underlying cause and design effective measures. For example, it may be due to one province been affected more than others by climate change-related shocks that affect its progress than others.

The Report observes that the Multidimensional Poverty Index (MPI), which reflects deprivations in key areas of health, education and standard of living, declined from 0.461 in 2005 to 0.266 in 2017. This was largely due to improvements in the health dimension. More than half of the MPI value is due to deprivation in standard of living, underscoring the need for increased interventions to improve livelihoods. The Gender Development Index (GDI) increased from 0.922 in 2005 to 0.941 in 2017, while the Gender Inequality Index (GII) decreased significantly from 0.487 in 2005 to 0.381 in 2017.

This Report observes that, although income inequality improved over time, it remains a challenge, despite efforts to reduce it. The Gini coefficient declined from 52.2 in 2005/06 to 42.9 per cent in 2016/17, yet income inequalities persist and generally translate into gender and geographical disparities, with women's per capita GNI being 24 per cent lower than that of men. Once adjusted by inequality, Rwanda's HDI value was reduced by 36.4 per cent in 2017.

The contribution of home-grown solutions and human development

HGSs are a unique and innovative response to the daunting challenge that Rwanda faced after the Genocide against the Tutsi. Most of the HGSs were developed locally and have been institutionalized and scaled up at the national level since 2006, after the most pressing needs in the aftermath of the genocide. Five HGSs, – the Girinka Program (one cow per family), Vision 2020 Umurenge Program (VUP), Community-based Health Insurance (CBHI), Imihigo (performance contracts) and Umuganda (Community work) – were selected to be analysed in this Report. The choice was based on two reasons: their policy objectives were deemed the most relevant and impactful on the human development outcomes; and they showed a strong innovative potential, having undergone several adaptations during their implementation over the last decade, and increased their capacity to deliver on their objectives.

Through the analysis of data and qualitative information, the Report reveals that HGSs positively impacted human development progress. The Report establishes a positive association between HGSs across all three dimensions of human development – a long and healthy life, access to knowledge and a decent standard of living. In addition, evidence is found showing a positive association between HGSs and the NHDH. HGSs are also associated with reduced gender and geographical inequalities, as shown by the significant geographical expansion of high-consumption levels from Kigali City to other provinces and specifically an increase in consumption among female HGSs beneficiaries. Using qualitative assessment tools, it was possible to ascertain that HGSs have positively contributed to social cohesion and resilient human development by creating a conducive enabling environment for enhanced human development. However, there are observable variations between districts in terms of the spatial distribution of the HGSs and of scores in the human development indicators.

Lessons and key messages from the home-grown solutions – human development linkages

The Report identifies several critical success factors, *inter alia*, explaining why HGSs have worked in Rwanda, as follows:

A combination of supportive political and institutional environment enabled the design and implementation of HGSs. Political will and commitment by the Government that ensured targeting of the poorest people with scarce public resources have contributed significantly to the success of the HGSs. HGSs have been designed and implemented with a clear focus on results, which enhanced downward accountability by implementing actors. A robust institutional mechanism, which partially comprised a dense network of local government institutions with a large cadre of motivated volunteers across the country, was instrumental in translating the policy statements and action plans into results on the ground.

HGSs are effective due to their strong grounding in local, socio-cultural values and socio-economic realities of the population. The Report observes that the strong anchoring of HGSs on cultural and national values enabled people to relate to them and their objectives, and to participate in them effectively with less need for external mobilization efforts or incentives. Ordinary people across the country, for example, considered *Girinka* as a Program to restore wealth and resuscitate cultural practices that promoted social cohesion. *Umuganda* also fosters greater ownership and collaboration between citizens and the Government, while *Imihigo* invokes historical associations with human dignity and self-worth to promote excellence, hard work and accountability in service delivery.

Continuous learning and adaptation that underscores the development of HGSs is a critical factor for their success. HGSs implementation has worked largely because the Government has continuously integrated lessons at all stages of implementation, thereby enhancing the HGSs' performance. For instance, the guidelines for the *Girinka* Program have been reviewed more than three times in less than five years to keep the Program focused and address the challenges reflected in feedback reports as implementation proceeds. Also, CBHI has now embraced the digital platforms in mobilization, subscription payments and service delivery, while VUP has been redesigned and expanded to respond to the specific needs of the beneficiaries, widen its coverage and enhance sustainable graduation from extreme poverty.

The Report reveals that policy convergence and consolidation deliver more effective results: Considering the overlapping nature of deprivations that the poor face, populations who had benefited from more than one HGSs at the same time (e.g. VUP, *Girinka* Program and/or CBHI) were likely to have better outcomes with respect to access to knowledge, healthcare utilization, improvement of standards of living and sustainable graduation from poverty (e.g. through the accumulation of assets and savings) than those who had benefited only from a single HGSs. This suggests that accelerated and sustainable graduation from poverty and increased progress in human development will require increased integration and coherence in HGSs interventions. Greater co-ordination and collaborative efforts will be critical to achieve this.

Design considerations and results-focused implementation: Most HGSs were conceptualized and designed to provide responses to clearly identified issues with a clear vision and to address the needs of the population. The design and implementation of HGSs have been continuously reviewed to ensure that challenges are identified and addressed, and the scope and implementation approach adapted to achieve the results. All the five HGSs analysed have been associated with positive and citizen-centred reforms leading to increased citizen participation, more impact on the

wellbeing of poor people, equity and the establishment of systems for sustainability. HGSs have been associated with the approaches and tendencies of yielding more cost-effective results, notably *Imihigo*. A clear example of efficient implementation is in CBHI, where 82 per cent of the expenditure is earmarked for the core function of healthcare delivery and only 18 per cent on overhead.

Major challenges and opportunities for accelerating and sustaining human development through home-grown innovations

The Report highlights a number of strategic challenges that undermine human development in Rwanda. Key challenges that must be addressed include the following:

- Despite best efforts at reducing the high levels of poverty, **many Rwandans continue to experience multiple deprivations**. Geographical and gender divides reflect existing inequalities.
- In addition, **Rwandans throughout the country face multiple vulnerabilities** that constrain the ability to improve human development. The Report observes that economic and social vulnerabilities are exacerbated by resource scarcity, demographic characteristics, and limited knowledge and technological capacity among the population to explore alternative livelihood sources, as well as the growing threat of climate change.
- **The most critical challenge may be inadequate capacity at the local government level** to drive the policy process, especially the ability to effectively deal with complex development challenges, including an effective implementation of innovative policies under HGSs. These capacity gaps are manifested or result in inadequate coordination, insufficient systems for information and knowledge management, as well as inefficiencies in implementation leading to sub-optimal outcomes from the HGSs.

Conclusion and recommendations

To address these challenges and accelerate sustainable human development, the Report proposes policy actions, in particular:

- *Consolidate gains and document lessons learned from HGSs in all dimensions of human development and build resilience to sustain the gains*. Increase investment to scale up and improve the quality of HGSs interventions so as to improve efficacy and impact on the most vulnerable population.
- *Enhance synergies by leveraging the inherent interlinkages between HGSs* in order to more efficiently optimize the outcomes from HGSs implementation.
- *Develop new incentives to spur greater innovation*, taking into consideration the changing demographics, institutional capacities and socio-economic aspirations. *Umuganda* and *Imihigo* must certainly be anchored on new incentives.
- *Enhance the implementation of a comprehensive national social protection and transformation framework* that consolidates interventions and improves coordination and the targeting of beneficiaries. Strengthen monitoring of the graduation and post-graduation out of poverty to enable the poorest people to exit from vulnerability.
- *Strengthen the capacity of sub-national actors, particularly local authorities, to coordinate and facilitate local innovation in HGSs*. Capacity enhancement is particularly and urgently needed to improve the quality of design, implementation and reporting on *Imihigo*, the innovation and leadership of *Umuganda*, as well as effective support to VUP and *Girinka* beneficiaries, beyond simple operational activities.

- *Expand the space and incentives for active youth engagement.* An entire range of incentives and opportunities for enhanced, active youth participation and influence should be explored and appropriate investments made. For instance, youth should be facilitated to lead and transform *Umuganda* into community development platforms of the digital era. Similarly, public and private investments that increase productivity and promote value addition to Girinka-related products should be promoted to widen opportunities for youth.
- *Address climate change and related risks* in order to enhance sustainable graduation from poverty and deprivation, and strengthen the resilience and ability of the local communities and the economy. Integrating climate change adaptation actions in all VUP, *Imihigo*, *Umuganda* and *Girinka* activities would increase the efficacy and sustainability of outcomes.
- *Leverage technology and knowledge to address the barriers of information gaps and resource scarcity and enhance labour productivity.* Most of the HGSs will greatly benefit from the enhanced incorporation of technology.

For specific HGSs, the Report recommends the following:

- *Imihigo*, especially at the local government level, should identify and promote transformational results that could effectively address the challenges that ordinary citizens face. Inter-governmental relations and stakeholder coordination need to improve in order to make the concept of joint planning and delivery work. Furthermore, implementation of innovative mechanisms and incentives to enhance private sector participation in the planning, financing, implementation and post-implementation maintenance and scale-up of *Imihigo* projects and associated impacts are key for enhanced impact.
- *Umuganda* could significantly contribute to human development with strengthened community capacity to identify and implement innovative interventions that are consistent with their unique needs. This should include relevant national and sub-national institutions to provide appropriate leadership and coordination of *Umuganda* activities. In line with the new *Umuganda* policy, it is necessary to create a platform or a framework for community input to better adapt *Umuganda* to the new urbanization and demographic trends.
- VUP has significant potential to address vulnerability. However, it requires further alignment to reach all eligible extremely poor Households including female headed households. In particular, based on the ongoing review of the Ubudehe¹ categorization, the focus of VUP-Direct Support (DS), which is to reach the extreme poor including eligible and female-headed households, should be strengthened. In further harnessing the full potential of VUP-Public Works (PW), it is essential to increase resources to allow for an increased number of days allotted to every beneficiary, in addition to streamlining the payment methods. VUP-PW links to climate change adaptation activities must be strengthened to address vulnerabilities that arise from climate change shocks.
- Similarly, VUP-Financial Services (FS) could benefit from enhanced targeting of the most vulnerable through the FS loan scheme and provide affordable preferential interest rates and other terms to enhance access and uptake by the target beneficiaries, with a focus on rural and urban poor women, and out-of-school youth.
- The Girinka Program should be strongly supported with high technical expertise to reap its enormous potential for improving nutrition, food security, productivity and standard of living; there should be a strong capacity-building element to harness this potential. A strong policy link should be established with the private sector with a focus on value addition on milk and milk products, involving the growing youth population at all levels of the value chain.
- CBHI should continue to expand its coverage while ensuring appropriate risk sharing approaches. The Government and its partners should push for a last mile effort to ensure that all segments of the population who are uninsured are included in the scheme, including individuals within extremely poor households.

Acronyms and abbreviations

CBHI	Community-Based Health Insurance
CHW	Community Health Worker
EDPRS	Economic Development and Poverty Reduction Strategy
FAO	Food and Agriculture Organization of the United Nations
FGD	Focus Group Discussion
FSVNA	Food Security Vulnerability and Nutrition Analysis
GDI	Gender Development Index
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
GoR	Government of Rwanda
HDI	Human Development Index
HDRO	Human Development Report Office
HGSs	Home-Grown Solutions
ICT	Information and Communication Technology
IGA	Income-Generating Activity
IHDI	Inequality-Adjusted Human Development Index
LODA	Local Administrative Entities Development Agency
M&E	Monitoring and Evaluation
MINAGRI	Ministry of Agriculture and Animal Resources
MINALOC	Ministry of Local Government
MINECOFIN	Ministry of Finance and Economic Planning
MINEDUC	Ministry of Education
MoH	Ministry of Health
MPI	Multidimensional Poverty Index
NCD	Non-Communication Disease
NER	Net Enrolment Rate
NGO	Non-Governmental Organization
NHDI	National Human Development Index
NHDR	National Human Development Report
NISR	National Institute of Statistics of Rwanda
NST	National Strategy for Transformation
OPHI	Oxford Poverty and Human Development Initiative

PRSP	Poverty and Reduction Strategy Paper
PSNP	Productive Safety Net Programme
RAB	Rwanda Agricultural Board
RGB	Rwanda Governance Board
RSSB	Rwanda Social Security Board
SACCO	Savings and Credit Cooperative
SDG	Sustainable Development Goal
TVET	Technical and Vocational Education and Training
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children’s Fund
VUP	Vision 2020 <i>Umurenge</i> Program
VUP-DS	Vision 2020 <i>Umurenge</i> Program – Direct Support
VUP-PW	Vision 2020 <i>Umurenge</i> Program – Public Works
VUP-FS	Vision 2020 <i>Umurenge</i> Program – Financial Services
12YBE	Twelve-Year Basic Education





1

Introduction

1.

Introduction

1.1 The concept of human development: An overview

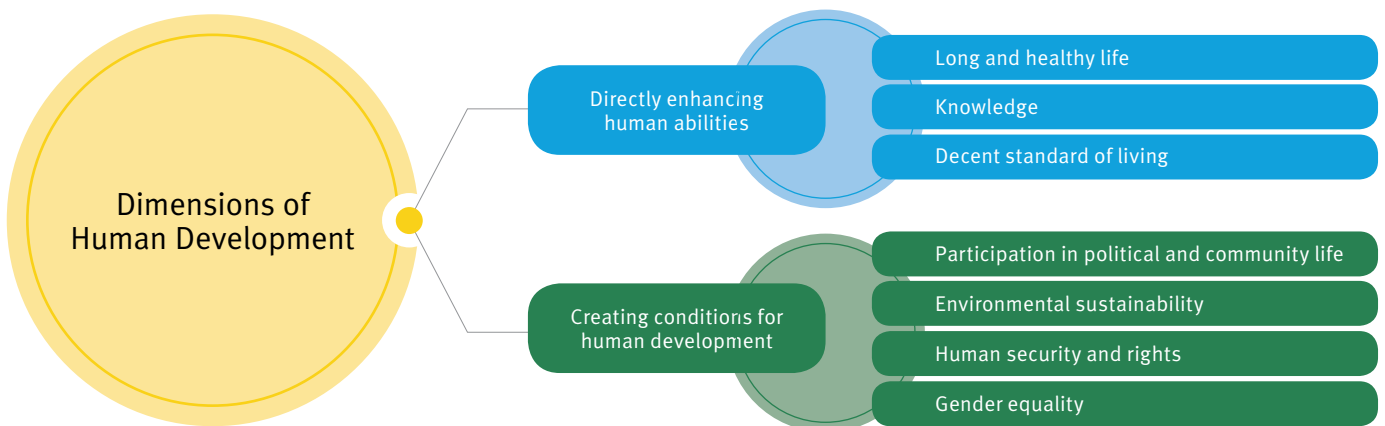
When he first introduced the concept of ‘human development’, economist Mahbub ul Haq (UNDP, 1990) defined it as the process of expanding people’s freedoms and opportunities, and improving their well-being. Human development concerns the freedom people have in deciding who to be, what to do, and how to live. The concept of choice is thus a very critical aspect of human development because it is what defines freedoms. People have more choices when they live long and healthy lives, exercise freedom to acquire and impart or share knowledge, and have the capability to meet their material and other needs.² Following up on ul Haq’s concept and his work with the United Nations Development Programme (UNDP), Amartya Sen (1999) and Martha

Nussbaum (2000) broadened the definition of human development, suggesting that it also includes the building of human capabilities and freedoms (information, knowledge and skills). This perspective, referred to as the ‘capability approach’, defines human development from an individualistic point of view, i.e. what a person can be or do.

In incorporating this approach into the current human development concept, UNDP stressed how human capabilities and choices are influenced by several factors, including the social and institutional environment.³ The quality of social institutions is critical in developing the character of individuals and influences the choices they make. Both the social and institutional environments impact on the quality and quantity of interactions with other human beings, which influence the development of capabilities and the choices people make, as

FIGURE 1.1

Hierarchical illustration of the dimensions of human development



Source: UNDP, 2015f.

well as their level of knowledge and access to healthcare. These social institutions include the family or local community, and at a wider scale, social norms that may include market and state institutions.

In sum, therefore, human development encompasses: the basic elements that enhance people's capabilities; the processes that create the enabling conditions for these capabilities to evolve and increase; and people's ability to make choices based on their capacities. This process is illustrated in Figure 1.1.

The indirect aspects of human development (Figure 1.1, green) as well as the direct aspects (Figure 1.1, orange) are increasingly attracting attention, largely because of the need to ensure that the progress in human development is shared across the entire society and sustained over time. This would also help make the process of realizing core human development outcomes more cost-effective. To this end, improvements in standard of living, access to knowledge, and health need to be protected from the risks of climate change and environmental degradation. These improvements would need to be safeguarded by widening opportunities for civic participation and by providing equal opportunities to men and women, youth and the elderly, persons with disabilities, and other demographic and socio-cultural groups. This can be achieved through urgent initiatives to remove barriers that perpetuate gender inequality, deprivation and other forms of social, political and economic exclusion.

1.1.1 Beyond the direct human development dimensions

The methodology underlying the human development assessment is therefore continuously evolving to provide a deeper and sounder analysis of progress made in human development by every country. Although the core dimensions of human development provide an overview of the status of human development in each country, they do not consider many other aspects. To fill this void, subsequent Human Development Reports (HDRs) and National Human

Development Reports (NHDRs) have explored new ways of broadening the assessment. One way is outlined in the global HDR 2016, which extends the focus to the areas of human rights, human security, non-discrimination, dignity and self-determination. This is indeed a more comprehensive assessment, but also more complex because the set of assessment indicators have yet to be defined. Some recent NHDRs explore these new aspects in some countries, for example, the Human Security Index (Benin and Nigeria), the Local Self-Governance Capacity Index (Kyrgyzstan) and the Community Well-being Index (Somalia).⁴

1.1.2 Resilient human development

In recent years, increasing attention has been paid to the need for securing the gains made in human development. A country's continuous improvements are neither sustainable nor meaningful if a shock of any kind can eliminate them, and there is a very wide and diverse array of shocks to which countries are prone today. For example, climate change induces natural disasters, famines and droughts; and economic shocks put a strain on the capacity of households and communities to take care of the weak, which is exacerbated by rising inequalities.

In such a risk-prone environment, human development gains are constantly at risk of a setback. Is it possible to assess the resiliency of human development in a country, i.e. its capacity to survive shocks without losing what was gained in the previous years? This is the current frontier of the evolution of human development assessment. It is important to understand the diverse types of risk that the most vulnerable face and the likelihood of their being translated into reduced human development, which depends on people's ability to adjust and cope. Thus, the vulnerability of households can be reduced by preventing shocks or by building individual or community resilience.

A country's continuous improvements are neither sustainable nor meaningful if a shock of any kind can eliminate them, and there is a very wide and diverse array of shocks to which countries are prone today.

The principal aim of the NHDR is not to produce a score that ranks a country against others, important as it is especially in inspiring countries or societies to compare and learn from cross-country comparisons.

1.1.3 The Human Development Reports: Global, regional and national

The HDRs were inspired by recognizing that human development is defined by people's capacity and freedom to choose, and the need for evidence-based policy advocacy to place human beings at the centre of every country's development. Since 1990, the global HDRs have covered a wide range of issues with global significance, providing a significant amount of information that enables comparison across the world and regions. The global HDR and its assessment process have since the 1990s been performed at the national, and more recently, the regional levels. This is because development is localized, and the most critical decisions that promote or undermine it are made locally, with a focus on the national level.

Although this is important, especially for inspiring countries or societies to learn from cross-country comparisons, the principal aim of the NHDR is not to produce a score that ranks one country against others. The HDR is, rather, a framework that aims to stimulate policy dialogue at all levels of citizenry to encourage and, as appropriate, compel decision makers to implement development policies that improve the quality of life for all people. It allows for a compelling argument to be flagged that, as society advances in terms of economic growth, political stability and social progress, all citizens should benefit from such advancement. This growth should improve the quality of life as measured by citizens' ability to work and earn an income, live long, healthy and productive lives, access knowledge and be able to share it, and live in harmony with others.

Thus, the NHDR should generate information to guide policy dialogue, programming and decision-making on human development. It should also encourage facts-based public dialogue while providing an opportunity to build an in-country knowledge and skills base for an in-depth, evidence-based and participatory analysis of national development policies.

1.1.4 Policy innovations

Striving to further human development in all its aspects is a central tenet underpinning the 2030 Agenda for Sustainable Development. The principles and underlying concepts of human development provide a framework to accelerate progress on implementation of the Sustainable Development Goals (SDGs). In order to achieve the SDGs, however, a transformative change is required so as to tackle the complex challenges that countries are facing, including poverty, inequality, demographic changes, violence and environmental degradation and climate change, among others.

Transformative change combined with improved human development will result in:

*visible and measurable economic and political empowerment of disadvantaged and vulnerable groups; greater gender equality in all spheres; more equal redistribution of income and wealth; [and] active citizenship with greater agency of civil society organizations and social movements...*⁵

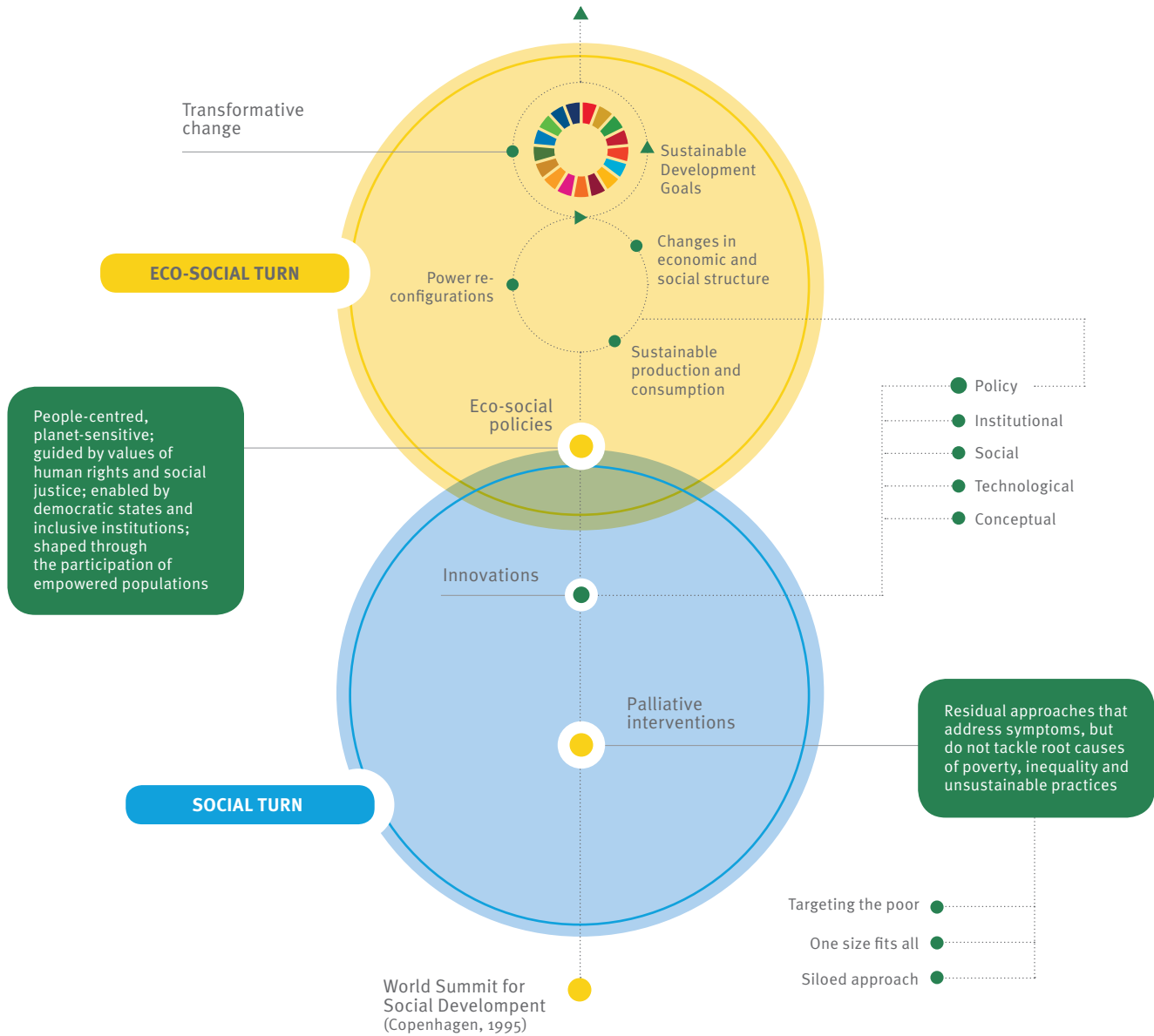
Thus, transformative change is a long-term process, which requires individual agency and collective action by societies.

Innovations are taking place in many different areas such as policy, institutions and technology (Figure 1.2). Policy innovations are among the drivers for transformative change by identifying and promoting new approaches based on evidence, including examining their impact in terms of social and economic returns. Furthermore, in characterizing policy innovations, the United Nations Research Institute for Social Development (UNRISD) in their 2016 Flagship Report indicates that innovative policies are those that overcome palliative and silo approaches, and promote an 'eco-social' turn in development thinking and practice.

According to the report, policy innovation combined with institutional innovation were used to bring lasting change to the lives of the most vulnerable people in many countries. Specifically, innovations in policy were widely adapted in the area

FIGURE 1.2

Policy innovations and transformative change



Source: UNRISD 2016 Flagship Report.

of social policy. While there is a broader understanding of social policy innovation, few studies provide a clear-cut definition for social policy innovation. According to the London School of Economics, “*social policy innovations are about developing new ideas, services and models to help address the challenges to welfare systems for delivering better social and economic outcomes*”.

Countries in the global South use social policy innovations to foster human development, such as Brazil and India, which expanded and extended the scope and coverage of social services through such policies.⁶ The European Commission applied the concept of policy innovations within the framework of the Social Investment Package (SIP) to boost investments that provide social and economic returns, social protection systems, and social service delivery through innovative systemic reforms. For example, Eastern European countries adopted social policy innovation when facing the need to re-engineer their welfare systems in order to provide adequate support to citizens while being financially sustainable in ways that effectively cope with demographic and other social challenges.⁷ Experience from other countries that proactively used policy innovations to foster sustainable developments indicates that for greater success, the involvement of the public authorities is key in addition to promoting broader partnerships with the private sector, civil society organizations and stakeholders.

Rwanda is among many countries that opted to adopt innovative social policies to bring lasting change in the welfare of its population. According to Chika (2017),⁸ innovation in social policy in Rwanda was built on the history and culture of the population. Rwanda’s approach to anchor its social policy innovation on indigenous knowledge is premised on the belief that it is cost-effective and will bring about the desired positive impact at the grassroots level. These innovative social policies are largely categorized as home-grown solutions (HGSs). Subsequent chapters in this Report will closely assess the contribution of HGSs to human development in Rwanda.

Rwanda hit its lowest HDI level in 1994, during the Genocide against the Tutsi, whose impact was devastating for the country and its citizens.

1.2 Human development and policy innovation in Rwanda

Human development in Rwanda

Rwanda has made considerable progress in human development over the last several decades. From 1990 to 2017, it was among the countries that improved their Human Development Index (HDI) most significantly, from 0.250 to 0.524, or a 109.6 per cent increase. This brought Rwanda from the lowest HDI ranking among its East African Community peers to the third best ranking, as illustrated in section 2.2.1. Rwanda’s current HDI value of 0.524 is above the average of 0.504 for countries in the low human development group and below the average of 0.537 for countries in sub-Saharan Africa.

Rwanda hit its lowest HDI level in 1994, during the Genocide against the Tutsi, whose impact was devastating for the country and its citizens. The event triggered a deep reflection on the root causes of such evil. One reason was found in the progressive erosion of the social and cultural value system that predated colonial rule and that promoted work, protected the weak, embraced diversity and placed humanity at the centre of leadership and social development. Abandoned under colonial rule, these values were reinstated during independence but progressively eroded in the decades before the genocide.

Post-genocide Rwanda sought to revive and build on these traditional values to promote the dignity, security and welfare of citizens, harmonizing these values with modern principles of pluralistic democracy, human rights and equality. Following the 1998-1999 Urugwiro Consultations, these values were enshrined in Vision 2020.⁹ This would mark a return to a society where every individual’s right to exist was acknowledged and upheld, and diversity perceived as a strength and exploited to promote shared prosperity, where everyone’s needs were met, and everyone’s dignity protected. Rwanda adopted a policy innovation approach in order to restore this value system and ultimately its recent path towards an

ever-improving human development within a framework of cultural restoration.

Policy innovation in the post-genocide context

Governments can make policies that are effective in increasing and sustaining high economic growth rates. They can also pursue strategies that ensure that the benefits of economic growth are shared across geographic and socio-demographic strata, result in better human development outcomes, and take into consideration the needs of future generations.

The Government needed to find effective, unique solutions to the extraordinary challenges that the country was facing after the 1994 Genocide against the Tutsi to embrace home-grown and innovative policies. They understood early on that the challenges were essentially Rwandan and for Rwandans to solve. These complex challenges were daunting, such as to restore security across the entire territory, resettle displaced citizens and refugees, deliver justice to genocide victims, reconcile and reunite citizens, establish an effective government machinery, and fast-track recovery of the economy and socio-economic fabric; they could not be addressed by business-as-usual interventions. Rwandan leaders at all levels (political, civic, religious, etc.) realized that they had to be innovative and to work together within a long-term perspective.

As a result, the collective term ‘home-grown solutions’ (HGSs) was crafted, and their implementation streamlined through specific policy and legislative instruments (Table 1.1). The Rwanda Governance Board (RGB) is the institution mandated to “preserve, protect and promote the use of home-grown solutions in Rwanda and devise strategies meant for applying them efficiently”.¹⁰ The RGB is further mandated to “give pre-authorization and follow up studies and research carried out in Rwanda on governance and home-grown solutions whether by Rwandan or foreigner”.¹¹ The RGB defines HGSs as development or governance innovations that provide unconventional responses to societal challenges that are based on

national heritage and historical consciousness, and that strive for self-reliance.¹²

This definition is in line with the growing literature on the subject. For instance, Agupusi (2016) considers a home-grown development framework as one that is initiated, crafted and implemented by a country with a focus on unique local imperatives such as socio-economic structures, history and characteristics.

Agupusi (2016) further identifies four features of home-grown development: economic diversification and attention to local imperatives; emphasis on social development rather than a narrow focus on gross domestic product (GDP); attention to human capacity and institutions; and broad stakeholder consultation and participation. The fact that these elements are also central to human development suggests that HGSs may be strongly linked to progress in human development.

Rwanda’s HGSs had been established as informal, community-based, often localized initiatives during and immediately after the genocide transitional period (1994–2003). The success of these initiatives naturally led to the scale-up and institutionalization of some of the initiatives, such as *Abunzi* (mediation), *Ubudehe* (‘people’s collective efforts in the fight against poverty’), Community-based Health Insurance (CBHI), *Umuganda* (Community work), the Vision 2020 *Umurenge* Program (VUP) and more recently, the *Girinka* Program. At the beginning of the second economic development and poverty reduction strategy (EDPRS 2, 2013–2018), these HGSs became major components of sectoral and national policies.

There are several reasons to believe that Rwanda’s HGSs have helped the country to deal with its historical and post-genocide challenges in the governance, poverty reduction and socio-economic transformation domains, including reintegration, reconciliation and resettlement, and subsequently citizens’ post-emergency mobilization to engage in productivity and nation building.¹³

The Rwanda Governance Board (RGB) is the institution mandated to “preserve, protect and promote the use of home-grown solutions in Rwanda and devise strategies meant for applying them efficiently”.

TABLE 1.1

Institutionalized home-grown solutions and the main areas of policy contribution

Home-grown solutions	Relevant policy areas			
	Peace-building and social cohesion	Inclusive development	Government effectiveness and accountability	Community empowerment and civic participation
<i>Imihigo</i> (performance contracts)	✓	✓	✓	✓
<i>Umuganda</i> (community work)	✓	✓	✓	✓
<i>Girinka Program</i> (one cow per family)	✓	✓		✓
Vision 2020 <i>Umurenge</i> (VUP)	✓	✓	✓	✓
Community-based Health Insurance (CBHI)		✓	✓	✓
<i>Ubudehe</i> ('people's collective efforts in the fight against poverty')	✓	✓	✓	✓
<i>Inkiko Gacaca</i> (traditional justice)	✓		✓	✓
<i>Abunzi</i> (mediation)	✓	✓	✓	✓
12-Year Basic Education (12YBE)		✓	✓	✓
Community health workers		✓	✓	✓
<i>Itorero</i>	✓	✓	✓	✓
Umushyikirano (National Dialogue Council)	✓	✓	✓	✓

Sources: Various, including the Rwanda Governance Board and MINALOC.

1.3 Rationale and scope of the Rwanda NHDR 2018

Rationale of the Report

NHDRs provide a platform and appropriate tools for policy advocacy on the use of national resources to expand people's opportunities to live longer, healthier, more productive and fulfilling lives. NHDRs are based on the narrative that development is and should ultimately be about people, hence the need to ensure that as national (and global) wealth expands, so should the opportunities for all people to live decent and fulfilling lives.

The Rwanda NHDR 2018 was commissioned to analyse the contribution of HGSs to human development in the country. It aims to demonstrate and promote local

innovation in development policy by highlighting areas where and how it has shaped or provided alternative paths to development policy in ways that improve human development outcomes. It could thus serve as an effective tool for raising awareness on and promoting people-centred development through a critical analysis of the human development outcomes of existing policies and recommending appropriate actions. Therefore, the Rwanda NHDR 2018 aims to answer the following questions:

1. What is the status of Rwanda in terms of human development?
2. What progress has Rwanda made in human development, especially since transiting from the post-genocide humanitarian phase?

NHDRs provide a platform and appropriate tools for policy advocacy on the use of national resources to expand people's opportunities to live longer, healthier, more productive and fulfilling lives.

3. In which aspects of human development did Rwanda make the greatest improvements (i.e. human development dimensions and indicators)?
4. In what ways have HGSs contributed to human development?
5. Why have HGSs worked, and where are the opportunities for further improvement to enhance their contribution to human development?

This Report is expected to incentivize greater innovation to scale up the human development outcomes of the HGSs. In addition, it provides guidance for the integration or the evolution of these HGSs into more effective human-centred development policies or models as Rwanda transforms into an upper middle-income country by 2035.

Scope of the Report

Since the thematic focus of the Report is on development policy innovation, the period under consideration starts in 2006, when the bulk of the HGSs were institutionalized, and ends in 2018. The scope of the Rwanda NHDR 2018 was restricted to the following five HGSs, given their focus on the dimensions that are directly relevant to human development:

1. *Imibigo* (performance contracts), which were introduced in 2006 after the territorial reorganization and as part of the innovations to make decentralization work for accountable governance, effective citizen-centred service delivery and enhanced performance.
2. *Umuganda* (community work), which is based on the power of collective action that had traditionally been used to build community infrastructure, maintain common assets, protect the environment and strengthen social cohesion.
3. *Mituweli* (community-based health insurance, CBHI), an innovation to address healthcare financing and achieve universal access to healthcare through affordable risk-pooling through community efforts.
4. *Girinka Program* ('one cow per family'), which is based on the socio-cultural importance of the cow as a symbol of

wealth from an economic and social and cultural perspective. The importance of *Girinka Munyarwanda* has been brought to the fore since the 1999 participatory poverty assessment, in which ordinary citizens identified livestock as a remedy to food insecurity and income poverty caused or worsened by declining soil fertility and landholding. Beneficiaries are identified according to their wealth ranking, starting with those considered worse-off than others (in Ubudehe categories 1 and 2).

5. *Vision 2020 Umurenge Program (VUP)*, which has three components targeting different strata of the poor. The **Safety Net component** includes the Direct Support (VUP-DS) component provided monthly to a poor household in which no member is able to work; the Public Works (VUP-PW) program that provides short-term employment to a very large number of people to carry out a public/community infrastructure project; and nutrition-sensitive direct support. The **Livelihood Enhancement component** includes financial services (VUP-DS), skills training and asset transfers. The third component, **Sensitization and Community Mobilization**, focuses on ensuring the availability of proximity advisory services, awareness raising and communications.

This Report presents insightful information about the relationship between HGSs and human development generated by a combination of qualitative and quantitative analyses. However, the findings of the quantitative analysis should not be overinterpreted and the caveats explained throughout the Report should be considered.

This Report is expected to incentivize greater innovation to scale up the human development outcomes of the HGSs.

1.4 Methodology

Analytical approach

The analytical approach to the NHDR 2018, described in Figure 1.2, aims at providing evidence that the five selected HGSs, as part of a wider array of development policies implemented by the Government of Rwanda, contribute to human development in Rwanda. Human development is described as one of broader development policy outcomes.

The grey arrow in Figure 1.3 shows how the HGSs are a part of Rwanda's wider set of development policies, structured around the Government's long- and medium-term development strategies, and hence designed to achieve its development policy outcomes. Hence, the HGSs are not considered to be acting in isolation, and interact and influence one another. *Imihigo* is represented by an arrow since it is designed to foster the performance of the other policies toward the achievement of the overall development outcomes.

The NHDR 2018 explored this complex interplay between policies through a phased approach. It provides the latest human development trends for Rwanda based on a thorough and comprehensive assessment of the available material and of new evidence produced through a combination of qualitative and quantitative analyses. In particular, the NHDR 2018 developed a National Human Development Index (NHDI) for Rwanda based on the country's own surveys and administrative data. The following sections provide details on the NHDR 2018 methodology.

Documentary review and design of the methodology

The first stage involved an extensive document review and mapping of the available qualitative and quantitative evidence and data on the HGSs covered by the Report. This served as the basis for defining the scope of the analysis, designing the research tools, and finalizing the data collection methodology.

Quantitative analysis

The second stage entailed a quantitative analysis of existing data using statistical

techniques and a presentation of preliminary findings from the review of the available quantitative data. The quantitative analysis of the direct contribution of three of the five HGSs (VUP, the *Girinka* Program and CBHI) was carried out along the lines illustrated in Figure 1.3, based on the available survey and administrative data. The systemic effect of the two remaining HGSs, i.e. *Umuganda* and *Imihigo*, was assessed using available administrative data. The quantitative assessment was structured to measure how each HGSs achieved its objectives and thereby contributed to the relevant dimension(s) of human development. Finally, efforts were made to connect the HGSs (VUP, the *Girinka* Program and CBHI) to human development using the NHDI constructed for this study.

The main secondary data sources used were the statistical surveys by the National Institute of Statistics Rwanda (NISR): the Integrated Household Living Conditions Survey (EICV 3, 4 and 5) VUP panel dataset and the Demographic Health Survey (DHS 2011 and 2015). Other secondary data were acquired from reports by public institutions, including the Ministry of Finance and Economic Planning (MINECOFIN), the RGB, the Ministry of Local Governments (MINALOC) and the Rwanda Agriculture Board (RAB).

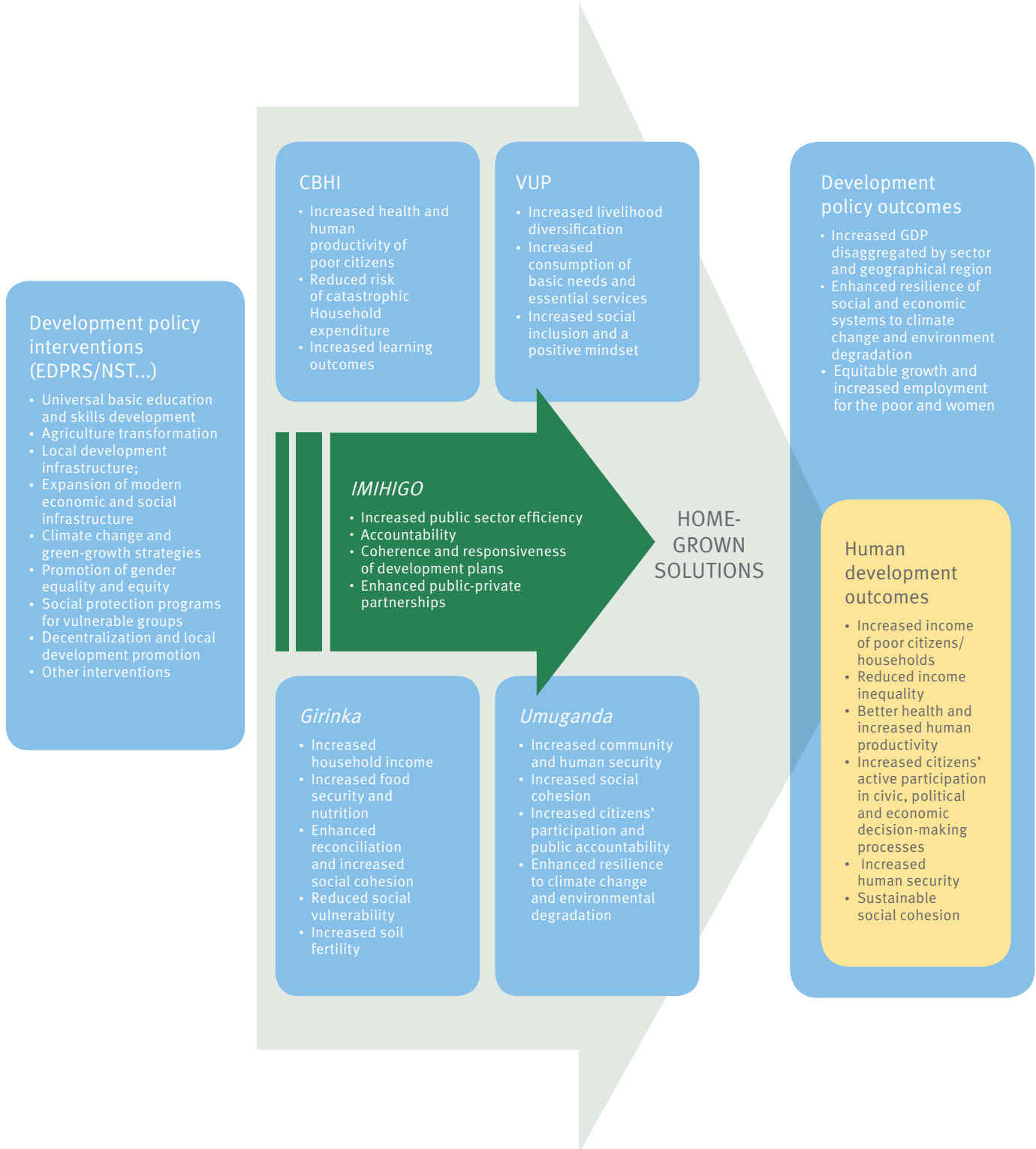
The pooled data from the household surveys compiled by the NISR in 2010, 2014 and 2016 were used for household-level correlative statistics and econometric analysis. It should be noted that while the analytical framework outlined above sets out the aim for in-depth analysis, the Report relied heavily on the available information. Thus, the pooled data only enable an assessment of the impact of different policies and programs on a limited spectrum of socio-economic indicators.

The systematic review of available data revealed several important data gaps that limited the analyses performed in this study. (Results of the data gaps assessment are presented in Annex 3). These data gaps, which were a major constraint, are further discussed in other government reports, particularly with regard to VUP.¹⁴ Data gaps and

The pooled data from the household surveys compiled by NISR in 2010, 2014 and 2016 were used for household-level correlative statistics and econometric analysis.

FIGURE 1.3

Links between the selected HGSs and human development in Rwanda



Note: The figure is based on the content of various policy documents on HGSs consulted to draft the report, as listed in the references.

constraints suggest the need for caution in approaching the results, which should not be overinterpreted.

Qualitative analysis

During the third stage, quantitative analysis results were complemented by results produced by a qualitative analysis, focusing on the grey areas that quantitative approaches could not assess or whose results were not meaningful. The data collection period spanned from 8 May to 22 June 2018.

The consultants visited 18 sectors and nine districts,¹⁵ covering all four provinces as well as Kigali City. Multiple criteria consistent with the overall theme of the NHDR were used to purposively select districts, localities and individuals/groups for the primary data collection. They included districts' poverty status, performance in *Imihigo*, geographical location (regional representation) and socio-demographics (population, urban/rural divide). The districts were selected in agreement with the Technical Committee to ensure adequate representation. Sectors were selected purposefully based on the implementation of the HGSs.

The consultants carried out focus group discussions (FGDs) and interviews with beneficiary in each district and conducted a meeting with sector officials in every sector. Sector-level meetings were attended by at least one cell executive secretary or Socio-economic Development Officers (SEDOs) from cells of the sector and one Primary School Head. Other participants included community health workers (CHWs) and sub-village leaders, local security personnel, and leaders of women and youth groups (often informal associations).

Qualitative data were collected primarily for two purposes: (i) to provide explanatory information/data for the quantitative findings and conclusions; and (ii) to provide additional information and to fill the gap in the quantitative findings. Qualitative data were organized and categorized based on thematic issues, respondents and localities, and then coded. Findings from the qualitative analysis were documented to provide a coherent narrative of the issues and justifications for

the conclusions. Case studies and specific respondent quotes, photos and text boxes are included as part of the qualitative reporting. Explanations for unique views of respondents (outliers) were sought through further interviews and triangulation with key informants or other reliable sources.

The main techniques of the qualitative analysis were as follows:

1. *A deductive approach* was used to generate a further explanation of, or justification for, the findings from the quantitative analysis as well as to validate facts and opinions from secondary information. Some of the case studies from audio-visual documentation were used to support this analysis.
2. *A grounded theory* was used to analyse case study information from beneficiaries and other field observations. The possible conclusions were obtained by identifying experiences or statements providing common experiences. Observed features and circumstances were used to explain divergences among the case studies and interview respondents and groups (FGDs).
3. *Key guides for qualitative analysis included:* observing and documenting the chronology of events and phenomena (typically for *Girinka* and VUP beneficiaries); understanding and linking the expressed views/information with the settings, e.g. sites and location of beneficiaries/intervention outcomes; and observing the behaviour and perception of people (as individuals or groups, gender, and other features). An analysis of the intervention processes (e.g. selection of beneficiaries, handling of *Girinka/VUP* assets or benefits and post-support developments) as well as changes associated with them were critical aspects of the qualitative analysis.

Quality assurance

Quality assurance for the drafting of this Report was provided by the Technical Committee comprising experts from UNDP, selected government ministries and bodies, and independent researchers from the

Qualitative data were collected primarily for two purposes: (i) to provide explanatory information/data for the quantitative findings and conclusions; and (ii) to provide additional information and to fill the gap in the quantitative findings.

University of Rwanda. The represented government bodies were the Ministry of Finance and Economic Planning, the Ministry of Health, the Ministry of Local Government, the National Institute of Statistics, the RAB, and the Rwanda Governance Board. Several presentations were made and feedback meetings held with the Technical Committee. A Steering Committee was also established at the senior level to provide oversight and strategic guidance to the production of the Report. The Steering Committee comprises UNDP, the Ministry of Finance and Economic Planning (MINECOFIN) and the RGB.

1.5 Structure of the Report

The Report is organized in five chapters. Chapter 1 introduces the concept of human development and explores its evolution and the results from compiling information and data from global, national and regional analyses of human development in the HDR. It then discusses understanding human development in the Rwandan context, and its deep linkages with its traumatic recent history and its drive towards policy innovation. The chapter then reviews the HGSs, their connection with human development and their centrality to the Rwanda NHDR 2018. The scope, rationale and expectations of the Report as well as its analytical framework and methodology are then described.

Chapter 2 describes Rwanda's recent socio-economic development as well as human development trends, discussing the evolution of the main human development-related indexes (HDI, GDI and MPI) and other indicators. The chapter then discusses Rwanda's main human development challenges and how they are tackled by the different selected HGSs.

Chapter 3 introduces the selected HGSs, describing their evolution and implementation to date. Subsequently, the HGSs outcomes are linked to the core human development dimensions – standard of living, access to knowledge, and a long and healthy life. This is followed by an extensive

discussion on the potential contribution of HGSs to the other dimensions of human development as well as a synthesis of the key success factors of the HGSs.

Chapter 4 discusses the potential innovations for socio-economic transformation linked to the HGSs and lessons learned from their implementation. In Chapter 5, the Report identifies and analyses the strategic challenges and opportunities for advancing human development through HGSs, placing them in the context of Rwanda's medium- and long-term aspirations under the National Strategy for Transformation, 2017–2024 (NST 1) and Vision 2050. The linkages between HGSs and the opportunity for harnessing synergies and to generate and sustain higher human development outcomes are discussed.

Since the NHDR presents the key policy analysis and messages, a great deal of detailed technical analysis is condensed to highlight the main messages and underlying factors; readers will find detailed tables and other useful materials in the Annexes.

Quality assurance for the drafting of this Report was provided by the Technical Committee comprising experts from UNDP, selected government ministries and bodies, and independent researchers from the University of Rwanda.





2

**Recent
socio-economic
developments
in Rwanda**

2.

Recent socio-economic developments in Rwanda

2.1 From recovery to sustainable, socio-economic transformation

Rwanda's post-genocide development process can be broadly categorized into the emergency, recovery and development phases (Figure 2.1). During the emergency phase, the Government focused on establishing security measures, resuscitating government functions and resettling citizens mostly in temporary structures. It faced serious challenges including financing, institutional and human resource capacities, and social cohesion issues. This triggered the need to respond with innovative policies, rooted in Rwanda's own culture, heritage and understanding of human development, the HGSs.

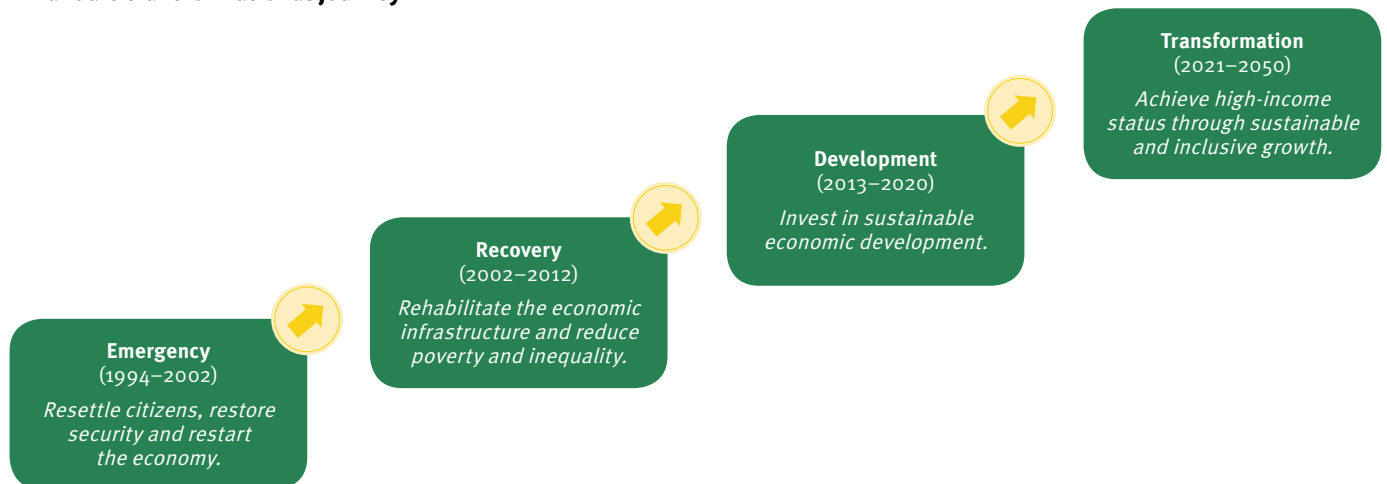
During the 1998- 1999 period, Rwandan leaders and citizens convened in a series of national consultations in the *Urugwiro*

(the official seat of the president) to find the underlying reasons, why and how, for Rwanda's situation and the efforts it needed to make towards a better future for all of its citizens. A key feature of the HGS is the effort to understand the problems that Rwanda is facing and their causes from an internal perspective.

During the first participatory poverty assessment in 1999-2000, *Ubudehe mu kurwanya ubukene* ("People's collective efforts in the fight against poverty") were used to stratify the poor and the different levels of deprivation, diagnose the causes, identify the coping measures and the most critical assets of the poor, and understand their thoughts on the appropriate pathways out of poverty. *Ubudehe* underscored and demonstrated the need for better targeting of citizens so that solutions could be administered according to specific needs,

FIGURE 2.1

Rwanda's transformational journey



Source: Authors' description based on government documents.¹⁶

challenges, strengths and opportunities, as well as experiences. *Ubudehe* provided at least three important lessons that are critical in making development policy work for human development:

- 1) It is important to clearly understand the unique circumstances of individuals, households, communities or even localities in order to identify who is deprived, why and how.
- 2) Poor people understand their situations, and their desire and often have the potential to lift themselves out of poverty and deprivation if appropriately supported in a timely manner.
- 3) Poverty reduction interventions should be based or anchored on the deprived people's own perceptions as the most appropriate pathways out of poverty, notwithstanding their seemingly low level of knowledge.

Poverty and its drivers were thus identified as a threat to Rwanda's security and social cohesion. As a result, the Government placed poverty reduction and a revival of economic activities, including agricultural production, on top of the public investment priorities during the recovery phase.

The different phases described above were underpinned by solid development planning and accountability frameworks that guided the country: a long-term vision; medium-term successive strategies such as the Poverty Reduction Strategy Paper (PRSP I, 2002-2006); and the Economic Development and Poverty Reduction Strategies (EDPRS I (2008-2012) and EDPRS II (2013-2018)). Medium- and long-term strategies are implemented yearly through the annual budgets, action plans and *imihigo*.

Vision 2020 was adopted in 2000 with the aim of lifting Rwanda from a low-income, agricultural-based economy to a middle-income, knowledge-based economy by 2020. Vision 2020 targets include: increasing per capita income from \$220 to \$1,240; increasing life expectancy from 49 to 66 years; and reducing poverty from 60.4 to 20 per cent, ensuring that no citizen remain extremely poor.

To date, the country has successfully implemented three medium-term strategies, each

building on and providing important lessons for improving the management of successive strategies.

The first development strategy, PRSP 1, 2002–2006, identified rural development and agricultural transformation as priorities. The Government considered it prudent to invest in agriculture because it fed the nation and employed nine out of every ten Rwandans,¹⁷ and because many macro- and micro-economic factors, such as inflation, foreign exchange rates, balance of trade and balance of payments, depend at least partially on local agricultural production. Areas of strategic public investment included, *inter alia*, land productivity, the expansion of rural infrastructure, credit and rural energy. Labour-intensive public works programs were implemented to provide off-farm employment opportunities for targeted vulnerable groups. The second priority of PRSP I was human development. The key areas of investment under human development were: healthcare, including access to family planning services; access to clean water and sanitation; education with a focus on access to basic education and skills; and social security.

The following strategy, EDPRS 1 (2008–2012), was structured around three flagship initiatives: (i) Growth for Jobs and Exports; (ii) Governance; and (iii) VUP, specifically tackling poverty, inequalities and the need to improve human development. These initiatives were also divided into economic, governance and social clusters in line with the National Development Plan. Also, while EDPRS 1 was aligned to the Millennium Development Goals (MDGs), National Strategy for Transformation 2017–2024 (NST I) has integrated the SDGs. PRSP and EDPRS I correspond to the recovery phase of Rwanda's transformational journey.

EDPRS 2 (2013–2018), the medium-term planning framework used during the development phase going beyond recovery, aimed at accelerating progress towards middle-income status and a better quality of life for all through four thematic areas:

- 1) **Economic transformation from an agrarian to a knowledge-based, service-oriented economy.** This was to

The first development strategy, PRSP 1, 2002–2006, identified rural development and agricultural transformation as priorities.

be achieved by attaining a sustained annual growth rate of 11.5 per cent and restructuring of the economy towards more services and industry. The main targets relate to strategic infrastructure investment for exports, increased private sector financing for increased exports coverage of imports, urbanization and the green economy approach for sustainability.

- 2) **Rural development.** This was to be achieved by investing in agricultural transformation, expanding rural infrastructure and social protection to reduce poverty levels to below 30 per cent.
- 3) **Increased productivity and youth employment.** The aim here was to generate 200, 000 off-farm jobs annually and increasing labour productivity. This entails greater investment in productive skills, an attitude change and an enabling institutional environment, including incentives for job creation.
- 4) **Accountable governance:** This will be achieved by applying the EDPRS 2 model of accountability, which focuses on outcomes such as raising the level of service delivery to at least 80 per cent and ensuring an increased and active participation of citizens.

The EDPRS 2 placed a special emphasis on youth empowerment both in terms of knowledge and skills, as well as in expanding opportunities for employment and livelihoods. Public spending on the key social sectors of education, health and social protection has remained considerable over the implementation period of all the strategies (2001–2017), despite directing more public investment expenditure towards expanding the transport and other economic infrastructure to boost economic growth.

Towards the end of Vision 2020, Rwanda successfully developed another long-term vision, Vision 2050, which was presented in 2016 at the National Umushyikirano Council. To implement the long-term vision, a successive medium-term plan was developed, the National Strategy for Transformation (NST 1). These policy frameworks will guide the transformation

phase of the country. Vision 2050 aspires to lead Rwanda not only towards becoming a high-income country, but also one with a high standard of living by the middle of the century. Its income targets are to attain upper middle-income country status by 2035 and high-income status by 2050, with the aim of providing high quality livelihoods and standards of living to Rwanda citizens by the middle of the century. Vision 2050 focuses on five priorities, which underpin the design, policies and actions of NST 1: (i) High quality of life and standards of living; (ii) Developing Modern Infrastructure and Livelihoods; (iii) Transformation for Prosperity (development of high-value and competitive jobs and sectors); (iv) Values for Vision 2050; and (v) International Cooperation and Positioning.

2.1.1 Taking stock of Rwanda's economic development: Sustained economic growth

Human development is closely linked to national wealth creation. As noted by Rodrik (2007), “historically, nothing has worked more than economic growth in enabling societies to improve the life chances of their members, including those at the very bottom”. Boozer et al. (2003) and Murkherjee and Chakraborty (2010) have all concluded, from multi-country studies, that economic development is strongly linked to human development, often in a mutually reinforcing way. Increased economic growth expands the capacity of the state to invest in improving human development, which in turn facilitates increased economic growth, especially as the quality of human capital increases. However, positive economic growth does not always translate into positive human development, because human development goes beyond the mere dimension of income. Taking stock of a country's economic growth is, nevertheless, a good starting point to understand its human development progress, challenges and prospects.

Rwanda's economy has expanded greatly since emerging from the post-genocide recovery period. Real GDP growth averaged around 8.2 per cent during the 2000–2010 period. The growth momentum was maintained in the 2010–2016 period as GDP

Human development is closely linked to national wealth creation.

growth averaged 7.3 per cent annually. To achieve the objectives set in NST 1, growth should average 9.1 per cent over the 2017–2024 period. After a brief slowdown in 2016 and 2017, when the economy grew at 6.1 per cent, Rwanda showed signs of a robust recovery in 2018, with an economic growth of 8.6 per cent,¹⁸ closer to the desired NST 1 target of 9.1 per cent. Reports by international organizations continue to project a positive economic outlook for Rwanda over the coming years. According to the World Bank¹⁹ and the International Monetary Fund (IMF), Rwanda’s economy should grow at an estimated 7.8 per cent in 2019 and 8 per cent in 2020.²⁰

Sustained economic growth has translated into a steady but slower GDP per capita growth (Figure 2.2) due to consistently high growth rates of the population, at an average of 2.55 per cent over the 2006–2017 period (Figure 2.2).²¹

Notwithstanding Rwanda’s rapid economic growth, its productive base has remained narrow. Rwanda’s economy is undergoing a structural shift, mostly towards the service sector (Figure 2.3) and to a certain extent towards manufacturing, owing to government initiatives such as ‘Made in Rwanda’, which was launched in 2016. However, this shift towards increasing economic productivity is yet to be realized. The limited level of industrialization (Figure 2.3) is constraining the country’s ability to create higher-value and

competitive products. This shift would also help generate adequate off-farm employment opportunities for Rwanda’s youth population. The competitiveness of the country’s industrial exports continues to be constrained by its narrow domestic market, its landlocked position and its distance to seaports, leading to high transportation and other logistical costs. Thus, most of the population continue to rely on the low productive agricultural sector for their livelihoods.

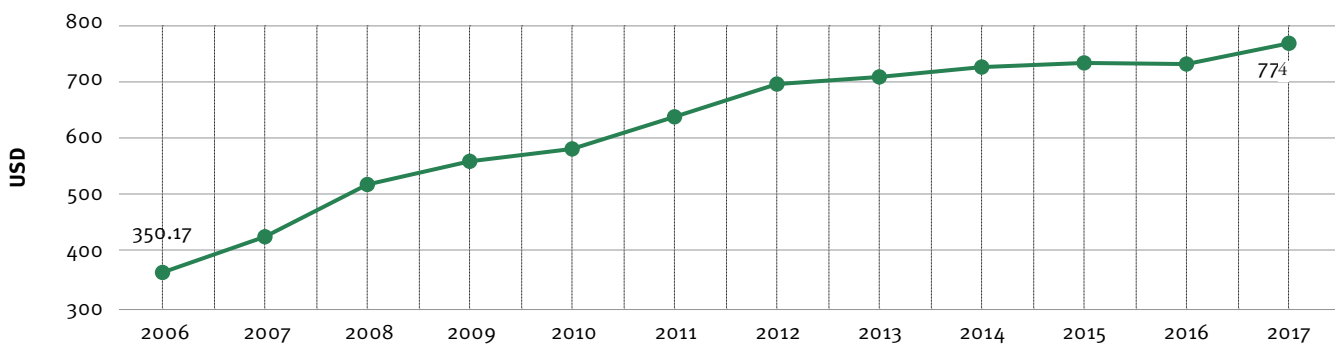
In 2018, agriculture continued to employ the largest segment of the population, accounting for 42.3 per cent,²² compared to manufacturing, which only accounted for 6.2 per cent.²³ Over 50 per cent of the population outside the labour force were engaged in subsistence agriculture. According to the latest labour survey of 2018,²⁴ the labour force participation rate and the unemployment rate were 54.2 per cent and 15.1 per cent, respectively.

Unemployment rates in Rwanda are higher among youth and the female population, at 19.3 per cent and 17 per cent, respectively. This trend is similar throughout sub-Saharan Africa, but Rwanda’s rates are consistently higher, and not only for youth and the female population, but also for the male population; hence, the higher overall unemployment rate shown in Figure 2.4. Among the different social groups, youth are experiencing the highest level of unemployment, strongly linked to a high population growth, the

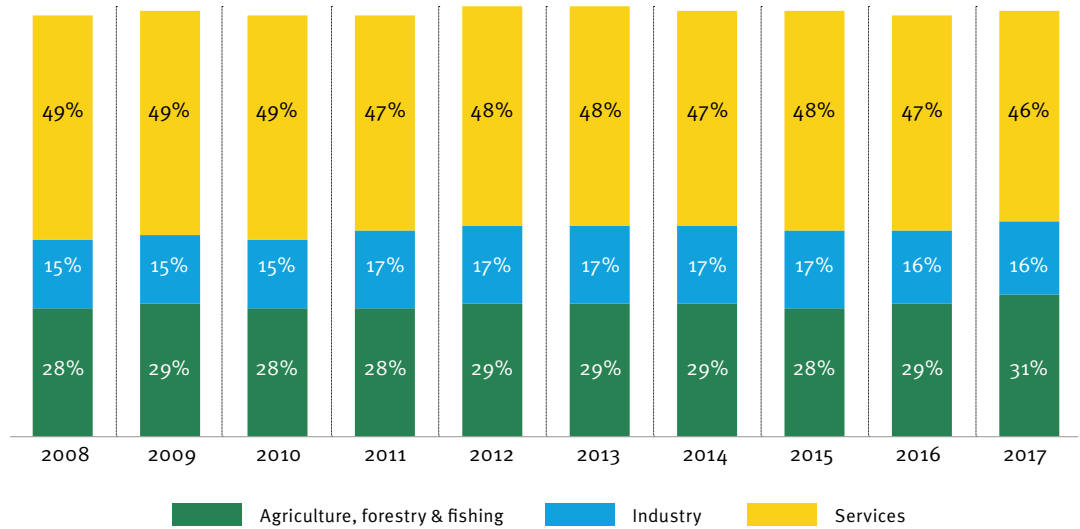
Unemployment rates in Rwanda are higher among youth and the female population, at 19.3 per cent and 17 per cent, respectively.

FIGURE 2.2

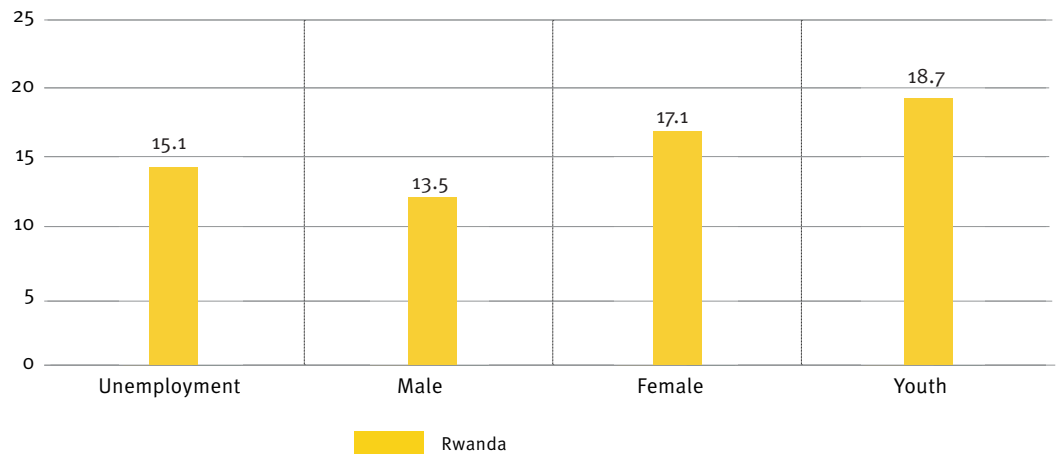
Rwanda’s GDP per capita growth, 2006–2017



Source: NISR, 2017b, 2018c; Authors’ tabulation.

FIGURE 2.3**Sectoral contribution to GDP in Rwanda, 2008–2017**

Source: National Institute of Statistics, National Accounts, various years, 2018. Authors' tabulation.

FIGURE 2.4**Unemployment in Rwanda and sub-Saharan Africa by population groups (%), 2018**

Source: for Rwanda NISR, 2018d; for sub-Saharan Africa (SSA) World Bank, Open Data Portal, 2018.

skills mismatch, and a job creation rate that lags behind that of new entries into the labour market. The working-age population is growing rapidly, and over 77 per cent²⁵ of Rwanda's population under 35 years old; creating enough quality jobs for them has become a defining challenge for the economy. The current annual job creation rate of

approximately 206,190 is slightly lower than the NST 1's target of 214,000.

Although education has improved in the past decade, the latest data for the 2016/2017 school year show that only 34.1 per cent of the youth population aged 13–18 is enrolled in secondary schools despite improving transition rates from primary to

secondary school (from 71.1 per cent in 2015/16 to 74.5 per cent in 2016/17). The number of students enrolled in technical and vocational education and training (TVET) declined, from 94,373 in 2015 to 90,015 in 2017,²⁶ and marketable technical and vocational skills are lacking, as acknowledged by the Ministry of Education’s TVET Policy (2015).²⁷ Furthermore, in 2018, employment in the modern wage sector occupied a mere 6 per cent of the working-age population, whereas 91 per cent of the employed are in the informal sector. Hence, the importance of ongoing extension of the social safety nets and pension schemes programs.²⁸ Insufficient decent jobs²⁹ (Figure 2.5) and prolonged joblessness can also increase youth disenfranchisement, which, in turn, may lead to social unrest, political instability and crime. In this challenging scenario, support to innovation and youth entrepreneurship will be critical for unlocking opportunities for job creation and livelihoods.

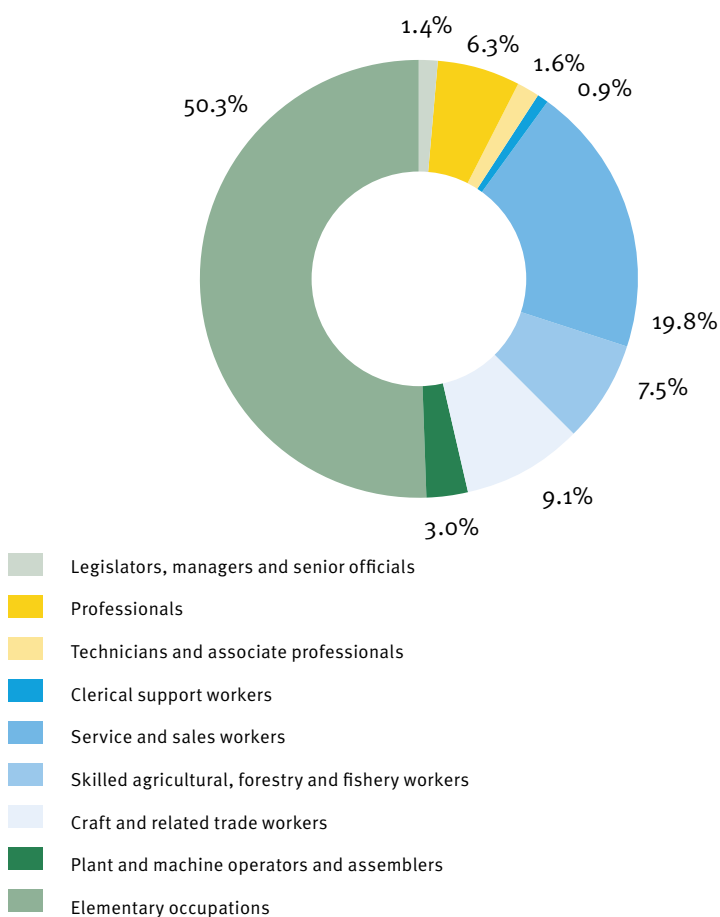
2.1.2 Towards inclusive and sustainable socioeconomic transformation

In 2017, Rwanda developed the fourth medium-term development strategy, the National Strategy for Transformation (2017–2024), NST 1. The Strategy is structured around three pillars; economic transformation, social transformation and transformational governance. NST 1 aims to be the bridge between the current Vision 2020 and the new Vision 2050. The latter aims at achieving the upper middle-income country by 2035 and a high-income country by 2050.

A cornerstone of the country’s capacity to meet the ambitious objectives of the NST 1 and Vision 2050 is linked to investing in human capital, expressed in terms of better education and access to skills, better healthcare and access to decent jobs and employment conditions. Hence, investment in human development would continue to drive economic growth. Vision 2050 also integrates the objectives of the different supranational and international agendas that Rwanda ratified, namely Agenda 2030, the African Union’s

FIGURE 2.5

Rwanda's labour profile per type of occupation, 2018



Source: National Institute of Statistics, Labour Survey August 2018.

Agenda 2063, the East African Community Vision 2050 and the Paris Agreement on Climate Change. Rwanda’s journey towards Vision 2050 is ambitious: to achieve its targets, growth needs to average more than 9.1% over the period of 2017-2024 (NST1), 12% over 2025-2035 period and above 9% over the period of 2036-2050. The Government has made estimates of projected resource needs to finance the necessary investments, guide planning and resource mobilization, and facilitate prudent allocation. Figure 2.6 illustrates the projected resource needs in percentage of GDP and their source, private or public. Critical aspects will be the capacity to raise the ratio

A cornerstone of the country’s capacity to meet the ambitious objectives of the NST 1 and Vision 2050 is linked to investing in human capital, expressed in terms of better education and access to skills, better healthcare and access to decent jobs and employment condition.

The concept of inclusive growth typically refers to equity with growth or to broadly shared prosperity resulting from economic growth.

of domestic savings to GDP from 12.1 per cent in 2017 to 23.9 per cent in 2024, and an increase in public and private investment from the current 22.6 per cent to 31.1 per cent of GDP.

However, the growth targets of NST 1 are not only quantitatively, but also qualitatively ambitious. Indeed, some critical considerations guided the formulation of NST 1 and support its drive towards accelerated transformation. In particular, there was need to

ensure the sustainability and inclusiveness of this transformation induced by the NST 1. Economic growth in particular is defined throughout the Report as inclusive (Box 2.1).

The concept of inclusive growth typically refers to equity with growth or to broadly shared prosperity resulting from economic growth.³¹ It assumes that inequality can negatively affect the growth potential of a country. There is increasing evidence that a strong focus on inclusive growth contributes

BOX 2.1

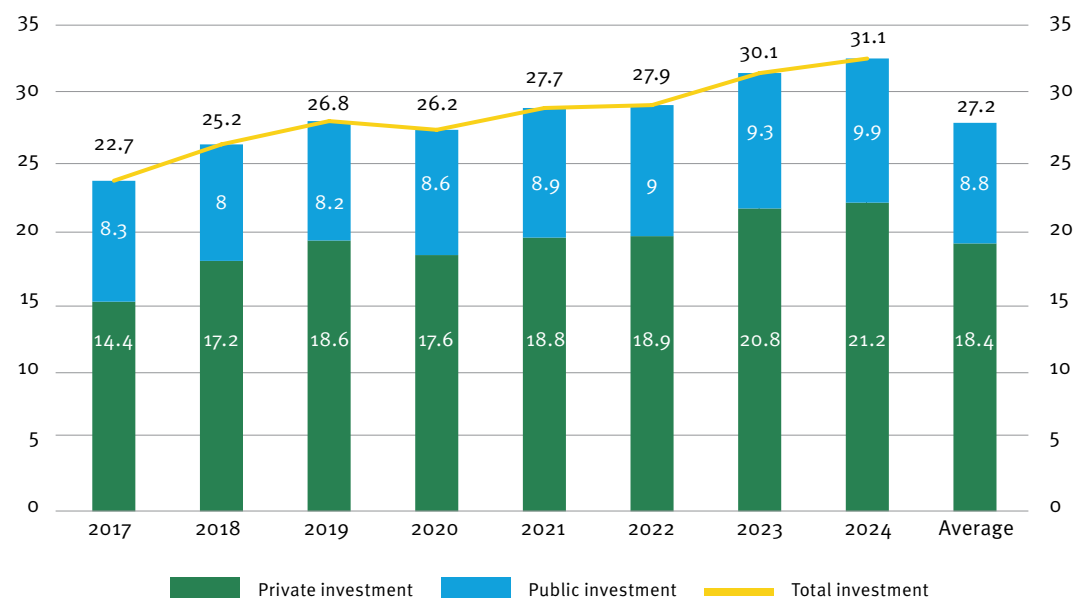
Achieving transformation: Bridging NST 1 and Vision 2050

- Structural transformation to off-farm activities in high-value sectors with high value/productive jobs, leading to productivity gains
- Increased urban dividend to gain from agglomeration by more population living in well-developed urban areas
- Inclusive growth based on a high level of human capital development and employment
- Matching of the growing workforce with skills to harness the demographic dividend
- Education reforms to address quality of learning
- Productivity improvements in the agricultural sector
- Increased land efficiency and innovative capacity
- Enhanced labour productivity (output per worker).

Source: Ministry of Finance and Economic Planning (2018b).

FIGURE 2.6

Investments as a percentage of GDP over the NST 1 period



Source: Ministry of Finance and Economic Planning (2018b).

to sustained (and sustainable) long-term economic growth. Inclusive growth broadens the discourse on growth beyond simplistic focuses on macroeconomic dimensions such as GDP, because improvements in this measure can hide the deterioration of other equally fundamental measures of wellbeing of the population, such as those captured by human development.³² In particular, the concept stresses how a reduction in inequalities has benefits for the long-term sustainability of economic growth; thus, sustainability and inequality go hand in hand, which the NST 1 recognizes.

Therefore, when addressing the challenge of poverty, NST 1 offers a holistic approach:

[The] eradication of poverty will require multiple interventions across different sectors that offer incomes, decent jobs and savings (covered under the Economic Transformation Pillar) as well as pro-poor and inclusive social protection (core and complementary) programs that offer support and allow asset accumulation to promote resilience to shocks, which are entailed under the Social Transformation Pillar. Specifically, the NST 1 targets the eradication of extreme poverty by 2024.

NST 1 aims at achieving not simply sustainable and inclusive growth, but also structural transformation, transforming the Rwandan economy from a low value-added agrarian one to a high-value added, knowledge-based modern economy, with highly developed services and manufacturing sectors.

2.2 Human development trends in Rwanda

Since emerging from the 1994 Genocide against the Tutsi, Rwanda has registered considerable progress in human development. The exponential growth in human development between 1990 and 2010 was accounted for by heavy investments in the recovery process, during which Rwanda restored its economy and people's livelihoods, expanded basic education and

rolled out universal access to healthcare. This section of the Report discusses how Rwanda progressed in the core dimensions of human development and then considers the environmental and socio-economic sustainability of the achieved results. It further summarizes the ongoing human development challenges that Rwanda is still facing, notwithstanding its significant progress in human development.

2.2.1 The Human Development Index and the Inequality-adjusted Human Development Index

This section of the Report uses the global Human Development Index (HDI) and the Inequality-adjusted Index (IHDI) to assess progress. Over the last two decades, Rwanda has achieved tremendous progress. Between 1990 and 2017, its HDI value increased from 0.250 to 0.524, or 109.6 per cent, scoring the highest average annual HDI growth ever registered by any country in the world over the period, at 2.78 per cent (Figure 2.7).

Rwanda's HDI of 0.524 is above the average of 0.504 for countries in the low human development group and below the average of 0.537 for countries in sub-Saharan Africa. Rwanda's remarkable progress in terms of human development compares favourably with its neighbours and members of the regional intergovernmental organization in which it belongs, namely the East African Community, as shown in Figure 2.8.

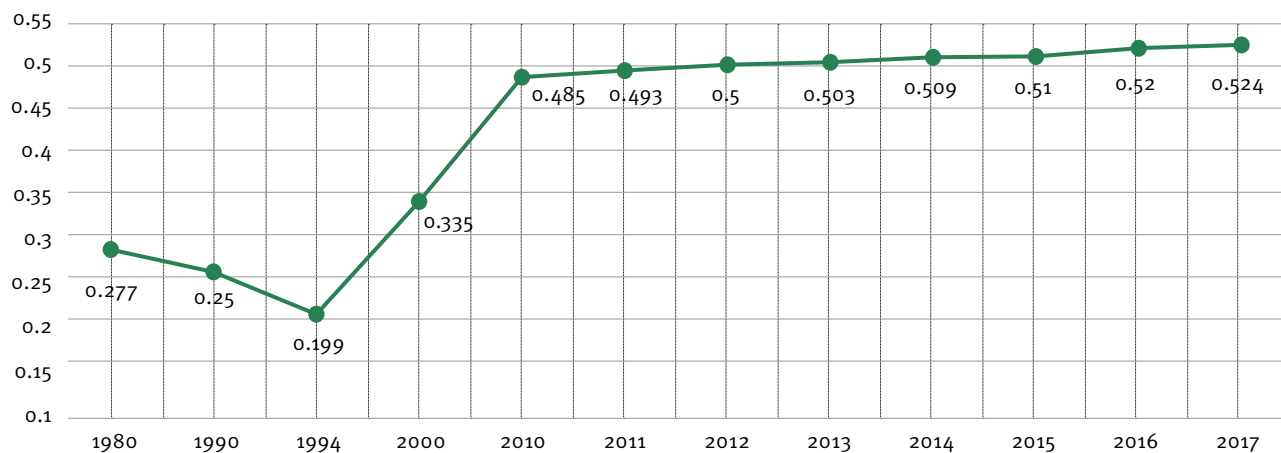
Living standards

Over the 1990-2017 period, there was impressive overall human development progress despite the sharp decline from 1990 to 1994, including in the standard of living. Gross national income (GNI per capita at 2011 US\$ purchasing power parity) increased from \$1,133 in 2011 to \$1,811 in 2017. However, when adjusted for inequality, Rwanda's HDI value falls from 0.524 to 0.367, a loss of 36.4 per cent; this adjusted value is referred to as the IHDI. Rwanda occupies the 15th highest position globally and the 9th highest in Africa in 2017 in terms of IHDI ranking. Income inequalities remain a major challenge to balanced human development,

Over the 1990–2017 period, there was an impressive overall human development progress, including a remarkable performance in the standard of living dimension.

FIGURE 2.7

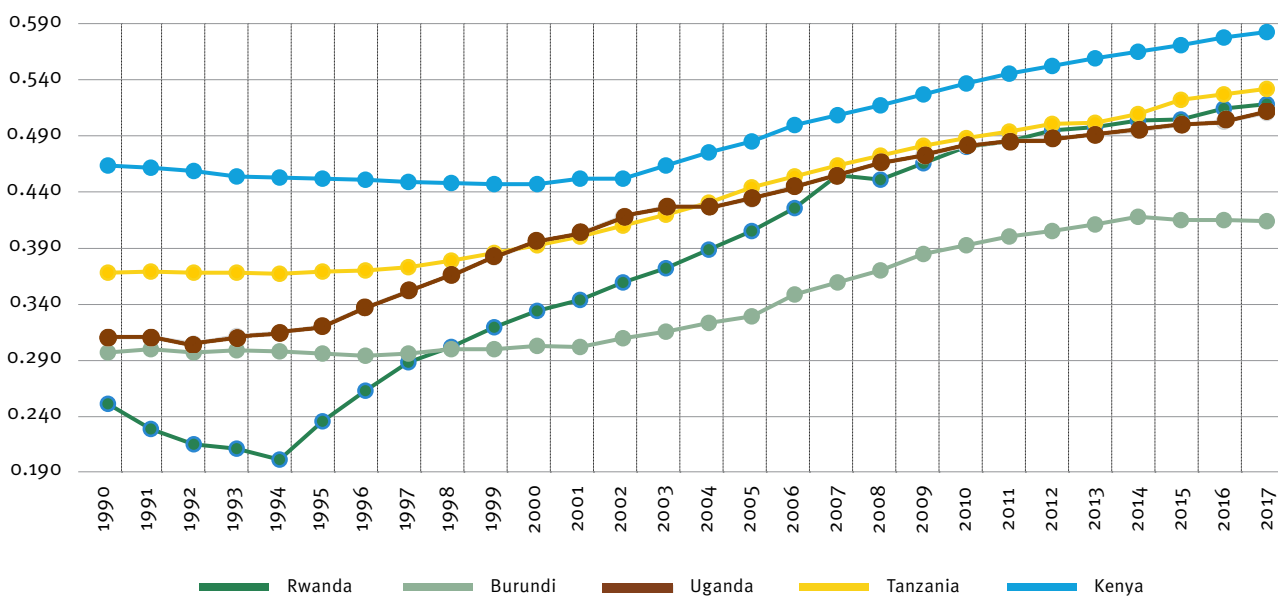
Rwanda's Human Development Index, 1980–2017



Source: UNDP, 2018b, Human Development Report Update, 2018.

FIGURE 2.8

East African Community HDI values, 1990–2017



Source: UNDP, Human Development Statistical Update, 2018. Authors' tabulation.

even more so in low-income countries including Rwanda. Income inequalities tend to manifest across gender and geographical regions. In Rwanda, for instance, women's per capita GNI is 24 per cent lower than that of men, despite similar labour force participation rates (UNDP, 2018).

Life expectancy at birth and health outcomes

Life expectancy in Rwanda increased from 49 years in 2000 to 66.6 years creased from 49 years in 2000 to 67 years (NISR, 2018b) in 2017. This progress is a result of improvements in key health outcomes, notably general mortality, and an especially significant reduction in maternal, infant and child mortality, as shown in Table 2.1. Several factors have facilitated this, such as the expansion of health facilities, ensured quality healthcare services, and service delivery innovations including performance-based financing (PBF), community health workers (CHWs) and (CBHI).

In addition, widespread distribution and increased use of insecticide-treated mosquito nets (ITNs), increased coverage of immunization against killer diseases, near universal access to medical insurance, increased coverage of clean drinking water and improved hygiene practices enhanced preventive

healthcare. For instance, access to improved drinking water sources increased from 72.9 per cent in 2014 to 78.5 per cent in 2017 (RMIS, 2017). However, there are significant disparities in access between rural and urban populations. While access to an improved water source in urban areas increased from 90.9 to 94.6 per cent, it increased for rural areas, from 69.2 to 74.4 per cent over the same period. In terms of access to improved sanitation, according to DHS 2015- rural areas have higher access than urban populations (57 per cent in rural areas compared to 42 per cent in urban areas).

Rwanda has made significant progress in the dimension of living long and healthy lives. Maternal mortality declined from 1,071 in 2000, to 210 mothers per 100,000 in 2015. Most of the key maternal and child health indicators show constant improvement since 2000, as shown in Table 2.1.

Child mortality indicators improved over time. These improvements are, however, unequally spread through the wealth quintiles. Figure 2.9 shows that the gap in under-five mortality between the poorest and the wealthiest quintiles declined from 89 deaths per 1,000 live births in 2005, to 44 live births per 1,000 in 2015. However, it is

Rwanda has made significant progress in the dimension of living long healthy lives.

TABLE 2.1

Progress on key maternal and child health indicators

Indicator	2000	2005	2010	2015
Neonatal mortality rate (per 1,000 live births)	44	37	27	20
Infant mortality (per 1,000 live births)	107	86	50	32
Under-five mortality (per 1,000 live births)	196	152	76	50
Percentage (%) of children aged 12–23 months fully vaccinated	75	80	90	93
Maternal mortality ratio (per 100,000)	1 071	750	476	210
Percentage(%) of births attended by skilled health personnel	27	28	69	91
Percentage (%) of antenatal care coverage (at least 1 visit)	92	94	98	98
Percentage (%) of women aged 15-49 years using a modern contraceptive method	6	10	46	48
Percentage (%) of unmet need for family planning (among currently married women aged 15-49)	36	39	21	19

Sources: UNICEF, Annual Report 2017 and National Institute of Statistics, RDHS 2000, 2005, 2010, 2015, and RIDHS 2007–2008 reports.

Key malnutrition indicators for children under-five have also improved over the 2000–2015 period, but remain high, particularly chronic malnutrition.

still high given that twice as many children in the poorest quintile (84 per 1,000 live births) die before their fifth birthday compared to those in the richest quintile (40 per 1,000 live births).

Key malnutrition indicators for children under five years of age have also improved over the 2000–2015 period but remain high, particularly chronic malnutrition (stunting). Malnutrition-related conditions such as anaemia heighten the risk of maternal mortality. Malnutrition or undernourishment among pregnant and lactating women can also result in birth complications and problems with breastfeeding, which can present health risks to newborns.^{33,34} Demographic and Health Survey (DHS) 2015 data show that stunting

affects 38 per cent of under-five children, as shown in Table 2.2.

Other indicators that improved are those related to the fight against malaria, which is an issue targeted by the Government and partners (the Global Fund and United States Agency for International Development). Eighty-four per cent of Rwandan households are covered insecticide-treated nets (ITNs). This coverage, however, varies among socio-economic groups and geographical location. Among the highest quintile, 86 per cent of households have at least one ITN, while 75 per cent of households in the lowest quintile have at least one ITN. Rising incidences of malaria is an issue of concern, despite high coverage of prevention such as awareness

TABLE 2.2

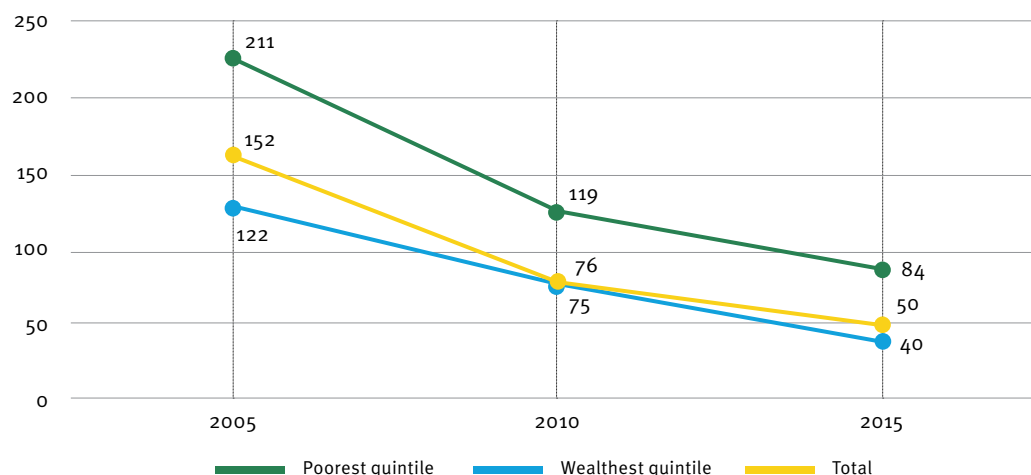
Progress on selected malnutrition-related indicators

Health indicator	2000	2005	2010	2015
Neonatal mortality rate (per 1,000 live births)	43	51	44	38
Infant mortality (per 1,000 live births)		5	3	2
Percentage (%) of unmet need for family planning (among currently married women aged 15-49)		18	11	9

Source: UNICEF, Annual Report 2017 and National Institute of Statistics, RDHS 2000, 2005, 2010 and 2015.

FIGURE 2.9

Trends in under-five mortality, by wealth quintile



Source: UNICEF, Annual Report 2017 and National Institute of Statistics, RDHS 2000, 2005, 2010 and 2015.

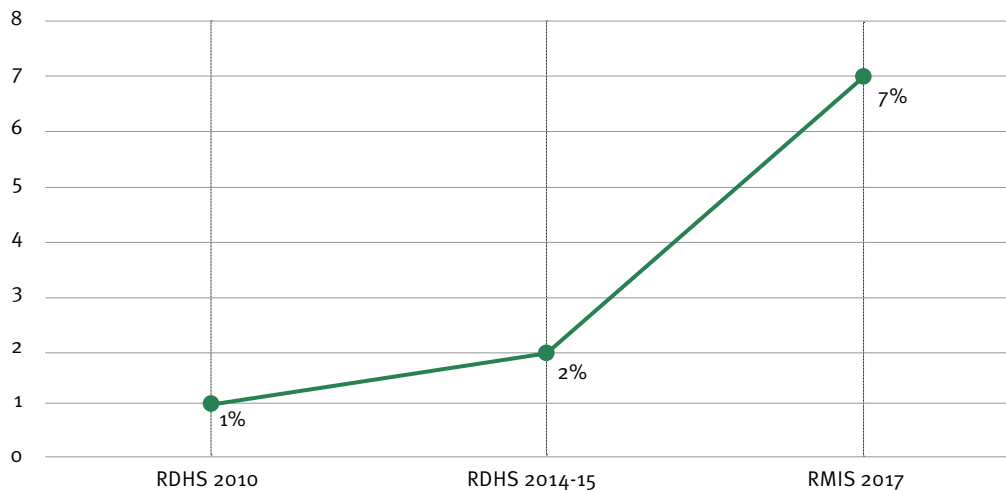
(8 per cent). National malaria prevalence among children under five increased from 1 per cent in 2010 to 7 per cent in 2017 (Figure 2.10). Malaria prevalence is highest in the Eastern Province (18 per cent) and lowest in the Northern Province (1 per cent). It also affects rural areas (8 per cent) much more than urban areas (2 per cent).

Access to knowledge

Primary school enrolment increased by 16 per cent from 2,190,270 pupils in 2008 (of whom 50.9 per cent were girls) to 2,540,374 pupils in 2017 (of whom 49.9 per cent were girls). The numbers tabulated in Figure 2.11 show an absolute increase in the number of pupils over the 2008–2017 period. Based on these gains, the World Bank ranks Rwanda as among the second best performing group of

FIGURE 2.10

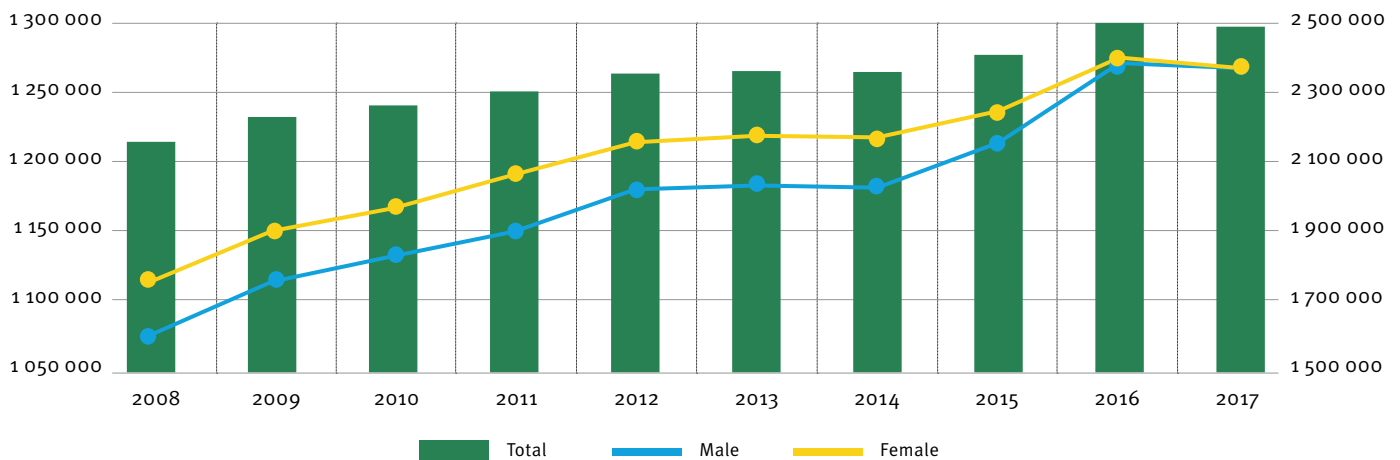
Percentage of children aged 6–59 months who tested positive for malaria by microscopy



Source: Rwanda Malaria Indicator Survey (RMIS) 2017.

FIGURE 2.11

Total primary school enrolment by gender, 2008–2017



Source: MINEDUC (2016a). Education Statistical Yearbook.

At the secondary school level, enrolment levels in 2017 more than doubled since 2008, from 288,036 students, of whom 137,815 (47.8 per cent) were girls, to 592,501, of whom 316,064 (53.4 per cent) were girls.

sub-Saharan African countries³⁵ in terms of increased access to education.

As often occurs in countries that witness a rapid expansion of primary school coverage, gross enrolment rates (GERs)³⁶ are high for both girls and boys, although slightly higher for boys (at 140 per cent compared to 138 per cent for girls). Higher than 100 per cent GER implies that many children are attending school grades lower than their age. Repetition of classes and late enrolment in school are the most commonly cited reasons for such performance.³⁷ As part of early childhood development strategy, the Government is currently expanding pre-primary education to ensure that all children have a foundational base and are able to enter and complete school at the right age.

Owing to the massive expansion in education, net enrolment rates (NERs)³⁸ reached a high level (98 per cent in of 2017). However, there are significant disparities between lower and higher grades in the primary cycle. As Figure 2.12 shows, only 67 per cent of pupils completed the last grade of primary school.³⁹

The inter-grade enrolment disparities in the primary cycle is accounted for by repetition of classes and dropouts. This may be further exacerbated by the high numbers of overage children (as reflected in high GERs of 139–140 per cent), and may affect outcomes, notably completion, pass rate and transition to higher cycles.

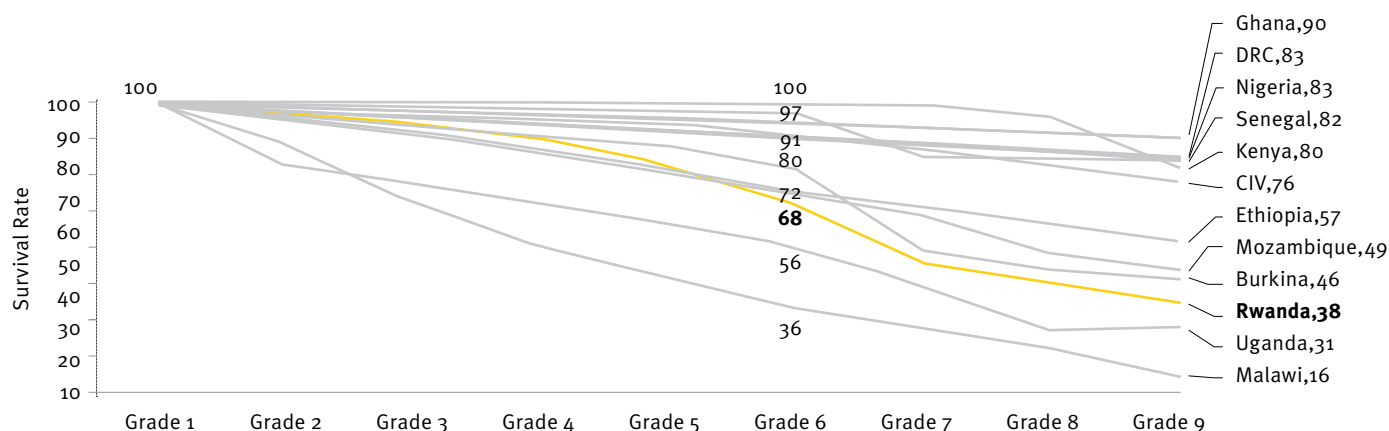
At the secondary school level (Figure 2.13), enrolment levels in 2017 more than doubled since 2008, from 288,036 students, of whom 137,815 (47.8 per cent) were girls, to 592,501, of whom 316,064 (53.4 per cent) were girls. The secondary school NER increased from 14 per cent in 2008 to 34.1 per cent in 2017. The NER for girls has been consistently higher than for boys since 2010. The NER increased considerably from 2010, soon after access to secondary-level schooling was increased with the introduction of the 12-Year Basic Education (12YBE) policy, which made schooling compulsory up to upper secondary level.

Nevertheless, both the GER and NER levels, however, are much lower than desired.⁴⁰ Part of the explanation for low NER is that many secondary school-age children enrol late and are therefore still in primary school, and that there are high dropout and repetition rates in secondary schools, at 4.4 per cent and 5.2 per cent, respectively, in 2017.

Despite the challenges highlighted above, following the successive reforms of the education sector (9YBE and 12YBE), children born today can expect to attain 11.2 years of education.⁴¹ This is a considerable improvement from 7.2 in 2000, a result that comes closer to Rwanda's EAC peers, as shown in Figure 2.14.

FIGURE 2.12

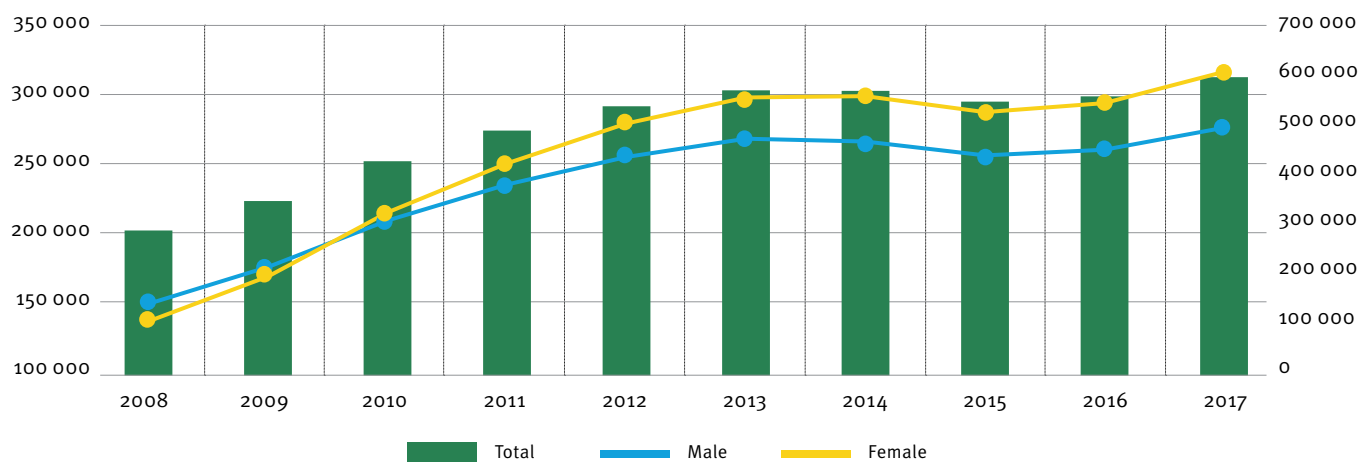
School survival rates in Rwanda and other sub-Saharan African countries



Source: World Bank and Agence and française de développement, 2018

FIGURE 2.13

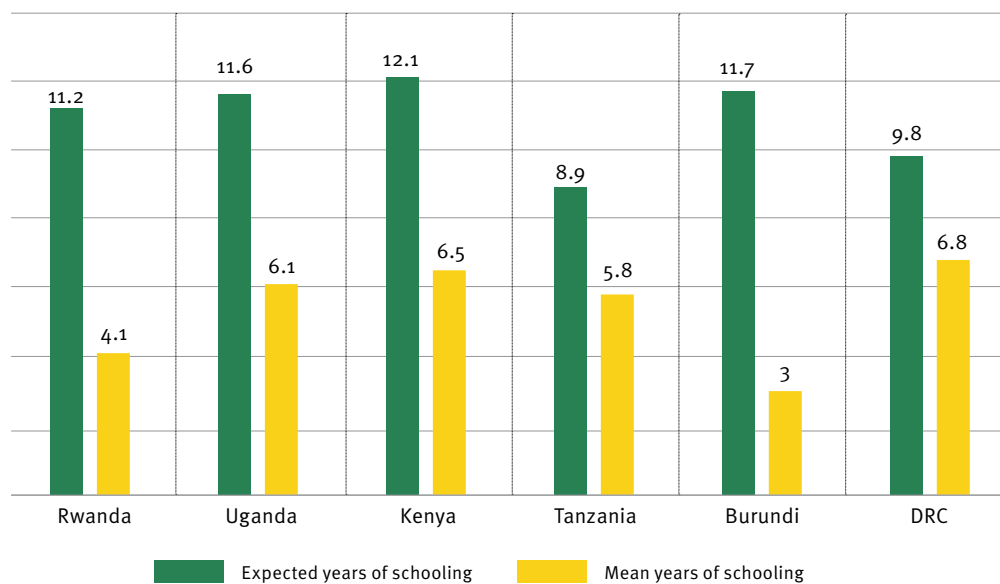
Enrolment rates and gender parity in secondary education



Source: MINEDUC (2016a). Education Statistical Yearbook.

FIGURE 2.14

Expected and mean years of schooling in Rwanda and neighbouring countries (%), 2017



Source: UNDP Human Development statistical Update, 2018

Quality education is one of 17 SDGs that make up the 2030 Agenda for Sustainable Development.

Actual educational attainment as measured by the mean years of schooling has, however, increased modestly, from 2.3 in 2000, to 4.1 in 2017. This may be due to delays in joining school at appropriate age and high dropout rate in the earlier years of 2000s which may be related among others to low income levels.

Quality of education

Quality education is one of the 17 SDGs that make up the 2030 Agenda for Sustainable Development. The creation of a skilled and knowledgeable young population through quality education is the foundation upon which Rwanda will achieve its ambition of becoming a knowledge-based economy. Providing inclusive and quality education as stated in the SDGs entails ensuring that all girls and boys complete free primary and secondary schooling by 2030. It also aims to provide equal access to affordable vocational training and to eliminate gender and wealth disparities in order to achieve universal access to a quality higher education.

While Rwanda has successfully expanded access to education services, it faces challenges to improve the quality of education broadly. ‘Mean years of schooling’ provides only a partial description of the state of education in the country. Rwanda has the lowest number of teachers per pupil in the East African Community (EAC), one for every 58, and close to 90% of the primary school teachers are trained to teach which is slightly lower than the east African countries (Table 2.3). According to a Rwanda

Ministry of Education report (2018),⁴² some progress has been made to improve the overall pupil-to-classroom ratio in Rwanda; the pupils-to-teacher ratio reached 56. The report further indicates that the pupils-qualified teacher ratio improved, from 59 in 2016 to 57 in 2018.

In 2016, the pupil-to-classroom ratio was 33 in secondary school. Yet, the percentage of qualified teachers in secondary school shows a marginal increase over time, from 67.7 per cent in 2012 to 69.2 in 2016, whereas the pupils-to-trained teacher ratio remained at 36 during the 2016–2018 period. While learning outcomes do not solely depend on inputs, critical aspects of them, such as teachers and classrooms play a major role. According to a World Bank report (2018),⁴³ most children in primary school do not acquire age-appropriate literacy and numeracy skills. The 2017 Learning Assessment for Rwandan Schools (LARS) assessment found that only 54 per cent of grade 3 pupils in Kinyarwanda and 59 per cent in mathematics reached expected grade-level benchmarks. The assessment further indicates that information on learning outcomes for higher levels is limited. It is imperative that Rwanda regularly assess the quality of education to ensure that it creates a competitive human capital for its transformational agenda.

2.2.2 The National Human Development Index

Globally, the HDI is constructed using indicators along the three dimensions of human development. However, due to the unavailability of data at the sub-national

TABLE 2.3

Quality of education indicators in the East African Community countries

Human development ranking	Country	Pupil-teacher ratio, primary school (2009–2017)	East African Community (EAC) ranking	Trained primary school teachers (2008–2017)	EAC ranking
142	Kenya	31	1	97	3
154	Tanzania	43	2	99	2
158	Rwanda	58	5	90	4
162	Uganda	43	2	..	
185	Burundi	50	4	100	1

Source: UNDP, Human Development Statistical Update 2018.

level for key indicators such as GDP and life expectancy, it was not possible to establish the status and trend of human development across provinces and districts. The NHDR 2018 sought to provide insights on the levels of human development by district by building a NHDI. It is important to note that the NHDI cannot be directly compared with the global HDI because the two indices do not use similar indicators.

Based on the information available in EICV 3, EICV 4 and EICV 5, as well as waves of the DHS, it was possible to build a NHDI for each of the districts, highlighting the evolution of the three dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. The construction of the NHDI and the details of its computation are described in Annex 4, Technical note on econometric modelling specification.

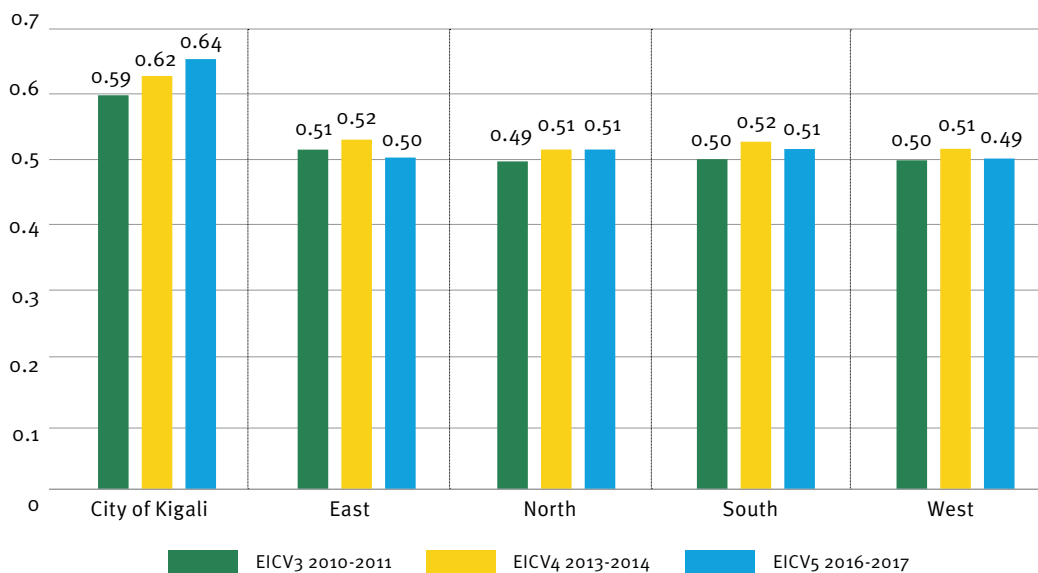
The NHDI improved from 0.5139 in 2010/11 to 0.5306 in 2014/15, but slightly declined to 0.5205 in 2016/17. This is partly due to the standard of living dimension whereby income saw a decline due to the drought that affected the country during

the survey year. At the provincial level, the NHDI increased from 0.5947 in 2010/11 to 0.6238 in 2013/14, and further reached 0.6493 in 2016/17 in Kigali. In the Northern Province, the NHDI improved from 0.4947 in 2010/11 to 0.5127 in 2013/14, and remained at the same level in 2016/17. However, the Eastern, Southern, and Western Provinces saw improvements from 2010/11 to 2013/14, which were partly reversed in 2016/17 (Figure 2.15). The combined reversal in these three provinces has been reflected in the NHDI progress in Rwanda. It is important to note that there are notable differences in human development among provinces. While over time the Northern Province made significant progress from ranking fifth in the NHDI in 2010/11 and 2013/14, to ranking third in 2016/17, the Eastern Province dropped from ranking second in 2010/11 and 2013/14, to ranking fifth in 2016/17. The gap in human development narrowed between 2010/11 and 2013/14, but in recent years, it has widened. Figure 2.15 indicates that Kigali has not only maintained steady progress, but has also

Kigali has not only maintained steady progress, but has also continued to be the leading human development achiever.

FIGURE 2.15

The National Human Development Index (NHDI), by province



Source: EICV 3, EICV 4, EICV 5 and DHS various years data, Authors' calculations.

TABLE 2.4

National HDI values, by district (2010/11, 2013/14 and 2016/17, and trends)

District	EICV3	EICV4	EICV5	Trend
	NHDI	NHDI	NHDI	
Bugesera	0.520	0.536	0.516	
Burera	0.482	0.498	0.501	
Gakenke	0.488	0.511	0.517	
Gasabo	0.590	0.615	0.637	
Gatsibo	0.497	0.513	0.472	
Gicumbi	0.479	0.497	0.511	
Gisagara	0.472	0.483	0.440	
Huye	0.531	0.543	0.521	
Kamonyi	0.531	0.551	0.554	
Karongi	0.509	0.522	0.504	
Kayonza	0.527	0.546	0.501	
Kicukiro	0.609	0.643	0.672	
Kirehe	0.501	0.515	0.485	
Muhanga	0.534	0.555	0.553	
Musanze	0.536	0.551	0.535	
Ngoma	0.497	0.511	0.515	
Ngororero	0.487	0.496	0.468	
Nyabihu	0.501	0.512	0.490	
Nyagatare	0.512	0.521	0.470	
Nyamagabe	0.490	0.511	0.506	
Nyamasheke	0.473	0.483	0.513	
Nyanza	0.509	0.528	0.526	
Nyarugenge	0.585	0.614	0.639	
Nyaruguru	0.480	0.492	0.479	
Rubavu	0.540	0.550	0.524	
Ruhango	0.510	0.533	0.530	
Rulindo	0.490	0.508	0.499	
Rusizi	0.528	0.545	0.530	
Rutsiro	0.477	0.488	0.465	
Rwamagana	0.532	0.551	0.544	

Source: EICV3, EICV 4, EICV5 and DHS 2011 and DHS 2015 data, Authors' calculations.
 Note: The overall values for Rwanda, listed in the last line of 2.3, are slightly different from those calculated by the Human Development Report Office (HDRO) due to differences in the methodology and data sources.

continued to be the leading human development achiever followed by the Southern Province, the Northern Province and the Western Province.

Figure 2.15 confirms that high NHDI values are concentrated in Kigali districts (Gasabo, Kicukiro and Nyarugenge). In 2016/17, Kamonyi, Muhanga, Rwamagana and Musanze were among the districts with the highest NHDI values, whereas Gisagara, Rutsiro, Ngororero, Nyagatare were among the districts with the lowest NHDI values. Interestingly, Nyamasheke has performed strongly in NHDI due to the fact that it has performed relatively well in two of the three components of the HDI, education and health dimensions which outperformed the low level of income in the district.

NHDI values varied at the district level, as mapped in Table 2.4. NHDI increased in nine of the 30 districts from 2010/11 to 2016/17, while NHDI values declined in 21 districts. In addition to the three districts in Kigali, seven other districts, namely Rwamagana in the Eastern Province, Musanze in the Northern Province, Huye, Kamonyi and Muhanga in the Southern Province and Rubavu and Rusizi in the Western Province performed consistently above the national average in all the years considered in this Report.

Table 2.4 clearly shows how, with the highest NHDI value, Kigali is still the best performing province of Rwanda, with the largest percentage change in NHDI values, well above 5 per cent. The three districts are among the five best performing districts in Rwanda, together with Nyamasheke, which registered the highest percentage change of 4 per cent followed by Gakenke and Gicumbi, at an average 3 per cent change; several districts have had over a 2 per cent increase in their NHDI values. However, Nyagatare had a 4 per cent decline in its NHDI value, while Gisagara and Rubavu had a 3 per cent and a 2 per cent decline in NHDI value, respectively, over the same period (2010/11 – 2016/2017). These districts are among the three worst-performing districts - Gisagara (NHDI value of 0.4396), Rutsiro (0.46546) and Ngororero (0.4678). This indicates that these districts have lower levels of human development and that there is a lack of progress in improving their situation.

2.2.3 The Gender Development Index and the Gender Inequality Index

The Gender Development Index (GDI) measures the disparity in human development achieved by men and women as a ratio of female HDI over male HDI; this analysis is based on the global HDI. The 2018 GDI value for Rwanda is 0.941. In terms of unequal opportunities, the 2018 Gender Inequality Index (GII), which reflects gender-based inequalities in reproductive health, empowerment and economic activity, has a value of 0.381, ranking it 85 out of 160 countries.⁴⁴

Table 2.5 shows that Rwanda is far ahead of the region and the continent in closing the gender gap in maternal health and political participation; high representation in the Parliament and participation in the labour force as well as low maternal mortality and adolescent birth rates account for this progress. Despite experiencing similar or comparable socio-cultural or economic conditions as to other societies in East Africa that tend to fuel high adolescent birth rates, in Rwanda, the adolescent birth rate is half that of East Africa (2017).⁴⁵ This is mainly attributed to the multi-sectoral efforts in fighting sexual and gender-based violence (SGBV), increased availability and use of modern contraceptives, as well as social mobilization and awareness raising to create stable family units where girls are nurtured and protected. Strict legislation and its enforcement, universal free primary education and effective social protection helped to enhance prevention of

teenage pregnancies and ultimately lower adolescent birth rates.

Rwanda has made significant strides in closing the gender gap in secondary school attainment. While enrollment for both male and female is low in secondary school; the gap is narrowed significantly to 0.9. The achievement of Rwanda is much higher than East Africa and African countries. This is an indication that the Government's commitment to realize universal basic education is partially yielding result by way of closing the gender gap in both primary and secondary education. To fully close the gap, Rwanda should ensure that girls are transiting from primary to secondary as well as they complete their education.⁴⁶

Over the last two decades, Rwanda has implemented innovative reforms in the political, social and economic spectrum to remove all forms of gender-based discrimination and to promote the advancement of women. Legal reforms in the land tenure system have increased women's land ownership and streamlined their property inheritance. For instance, married couples have an equal share of registered land-related property, and transactions (e.g. sale of land) must be consented to by both parties. Also, boys and girls have equal opportunities to inherit family property, which was not the case before the present land law that came into effect in 2005. These measures, among others, have helped to foster financial inclusion.

The commitment to sustained gender equality in Rwanda can also be witnessed in the institutional set-up and work of the Gender Monitoring Office (GMO), a national institution set up in 2007⁴⁷ with

Over the last two decades, Rwanda has implemented innovative reforms in the political, social and economic spectrum to remove all forms of gender-based discrimination and to promote the advancement of women.

TABLE 2.5

Comparative position of Rwanda on selected gender equality indicators

Region/country	Gender Development Index	Gender Inequality Index	Maternal mortality gap	Adolescent birth rate gap	Female share of seats in parliament	Gender gap in secondary school attainment	Labour force participation gap
Rwanda	0.957	0.4	1.2	0.7	51.2	0.9	1
East Africa	0.886	0.53	1.9	1.4	28.1	0.7	0.8
Africa	0.871	0.55	2.1	1.7	20.8	0.7	0.8

Source: UNDP, Africa Human Development Report 2016 (2016).

Measuring progress in closing the gender gap in critical areas of human development also provides significant insights into the nation's efforts.

the statutory mandate of monitoring how gender equality and equity commitments and targets adopted at the national level are being met. The scope of the mandate is across the public and private sectors. GMO regularly produces a national gender equality status report to Parliament, which is then discussed, and policy directives issued. Other avenues for monitoring the promotion of gender equality include citizens' report cards (CRCs), gender budget statements and sectoral administrative reports where gender-disaggregated information on progress is provided.

Measuring progress in closing the gender gap in critical areas of human development also provides significant insights into the nation's efforts. The latest Global Gender Gaps Report, 2017, published by the World Economic Forum, shows that Rwanda has

made tremendous progress in closing the gender gaps in four critical areas: politics, health, education and the economy. Table 2.6 shows Rwanda's position in relation to neighbouring countries in 2017.

Rwanda has closed its gender gap by 82.2 per cent in the four critical areas measured, closely following the three Nordic countries of Finland (82.3 per cent), Norway (83 per cent) and Iceland (87.8 per cent). In terms of ranking, Rwanda progressed from seventh place in 2014 to fourth place in 2017, and it is the only country in the region that has consistently made positive progress over the last four years. As shown in Figure 2.16, the largest contribution to this score was in health (98 per cent) and educational attainment (95.1 per cent), while the lowest was in political empowerment (54 per cent).

TABLE 2.6

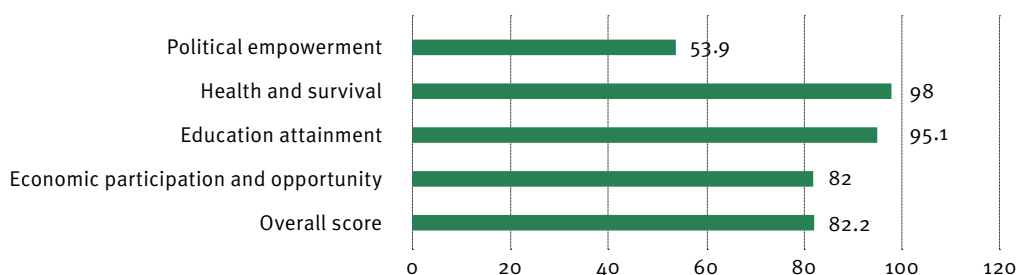
Progress in closing the gender gap (GGI), 2014–2017

	Overall score				Overall global rank			
	2014	2015	2016	2017	2014	2015	2016	2017
Rwanda	0.7854	0.794	0.8	0.822	7	6	5	4
Burundi	0.7565	0.748	0.768	0.755	17	23	12	22
Uganda	0.6821	0.708	0.704	0.721	88	58	61	45
Tanzania	0.7182	0.718	0.716	0.7	47	49	53	68
Kenya	0.7258	0.719	0.702	0.694	37	48	63	76

Source: World Economic Forum, Global Gender Gaps Reports and various years.

FIGURE 2.16

Closing the gender gap by dimension (GGI 2017)



Source: Global Gender Gaps Report, 2017.

2.2.4 The Multidimensional Poverty Index

The Multi-Dimensional Poverty Index (MPI), first published as part of the HDR 2010, looks beyond income to identify how people are progressing or being left behind across three key dimensions: health, education and standard of living. It measures deprivation in such necessities as clean water, sanitation, adequate nutrition and primary education. Those who are deprived in at least a third of the MPI's components are defined as multi-dimensionally poor. Deprivation in social sectors perpetuates the poverty situation and slows down progress in human development.

To date, the MPI for Rwanda is produced both at the global level by UNDP and at the national level by NISR. This Report discusses the global MPI, acknowledging that the National MPI report was launched as recently as December 2018.

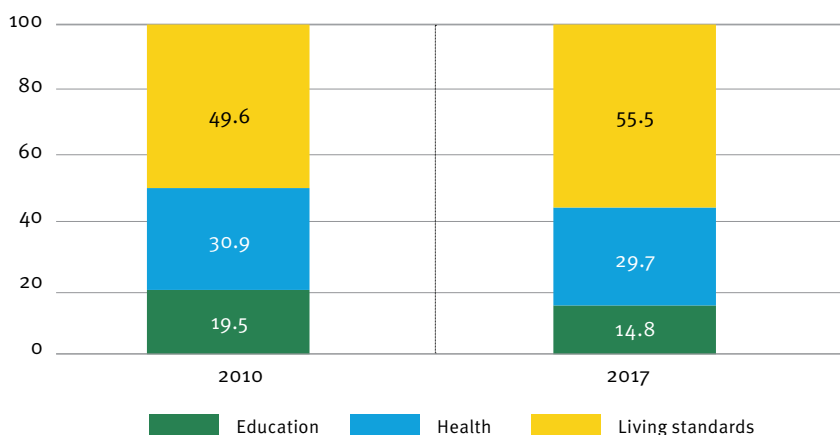
The global MPI value has been steadily decreasing over the past years, from 0.461 in 2005, and 0.350 in 2010, to the current value of 0.266. In 2018, 22.95 per cent of the population experienced severe multidimensional poverty and 24.92 per cent were at risk of falling into multidimensional poverty. These figures also show an improvement compared to 2010, when the percentages were 26.5 and 34.7, respectively.⁴⁸

Since the MPI is calculated over the three dimensions of health, education and standard of living, it is useful to consider the relative contribution of each one to the overall MPI score (Table 2.7). During the 2010–2017 period, for which disaggregated data are available, there was a reduction in the contribution of the health and education dimensions to multi-dimensional poverty and an increase in the contribution of the standard of living dimension (Figure 2.17). Living standards contribute 55.53 per cent to MPI, followed by the education (29.69 per cent) and health (14.78 per cent).

Hence, Rwandans are increasingly less deprived in the health dimension, and more than half of the MPI is due to deprivation in income and other standard of living aspects. Multi-dimensional poverty is more dire in rural than in urban settings (Table 2.7),

FIGURE 2.17

Contribution of the three dimensions to the MPI score (%), 2010–2017



Source: UNDP Human Development Index data (2018).

TABLE 2.7

Rwanda global MPI values by area, 2018

Area	MPI	Incidence	Maternal mortality gap	Adolescent birth rate gap	Female share of seats in parliament	Gender gap in secondary school attainment
National	0.266	55.8%	4.8%	24.9%	22.9%	100.0%
Urban	0.11	24.6%	44.7%	24.2%	7.6%	16.7%
Rural	0.297	62.1%	47.9%	25.1%	26.0%	83.3%

Source: OPHI, MPI Resources, 2018.

although intensity and vulnerability scores are similar. This underscores the need to focus efforts on addressing standard of living, particularly in rural areas where the majority of the poor are living.

Multi-dimensional poverty is better understood when the country-level results are further unpacked to highlight regional disparities. Multi-dimensional poverty incidence is much higher in the rural provinces than in Kigali, but intensity and vulnerability scores are closer to those in Kigali. The Northern Province has the lowest MPI level among the provinces, followed by the Eastern, the Western and the Southern Provinces (Table 2.8).

TABLE 2.8

Rwanda global MPI values by province, 2018

Province	MPI	Incidence (H)	Intensity (A)	Vulnerable	Severe poverty	Population share
Kigali City	0.118	26.2%	45.0%	23.1%	8.1%	11.1%
East	0.286	60.3%	47.4%	23.9%	24.2%	25.3%
North	0.245	53.0%	46.3%	28.5%	18.6%	16.4%
South	0.305	62.3%	49.0%	24.2%	29.3%	24.3%
West	0.29	60.5%	47.9%	25.2%	25.1%	22.9%

Source: OPHI, MPI Resources, 2018.

2.3 The environment, the natural resources, climate change and human development

Rwanda is highly dependent on natural resources. According to Wealth Accounting and the Valuation of Ecosystem Services (WAVES) data, almost 90 per cent of the population depend on the natural resources for their livelihood – land, water, minerals, ecosystems and forests.⁴⁹ The GDP contribution of the natural resources alone is estimated by the WAVES at around 7 per cent of the GDP; however, the agriculture, forestry and fishing sectors accounts for about a third of the GDP.⁵⁰ Over 70 per cent of the population nation-wide depend on agriculture and will continue to do so for the foreseeable future (NISR, Labour Force Survey, 2018).⁵¹ The tourism industry relies on the natural landscape and biodiversity, while other natural resources, including water and forestry, are the basis for rural livelihoods improvement and job creation. Over 79.9 per cent of the population rely on firewood for cooking, leading to high rates of deforestation.

With the growing population of one of the most densely populated countries in Africa,⁵² Rwanda’s environment and natural resources are increasingly being unsustainably used, leading to degradation of soil and land, encroachment into wetlands, and loss of ecosystems and biodiversity. Ecosystem degradation combined with complex and

hilly terrain, and increasingly extreme weather due to climate change raise the risk of disasters such as drought, flood and landslides, especially for the most vulnerable population, such as poor rural farmers and women-headed households.⁵³

Furthermore, climate change is a reality in Rwanda. Between 1970 and 2010, annual average temperature increased by 0.35°C per decade, or 1.4°C.⁵⁴ Further, studies indicate that Rwanda’s average annual temperature may increase by 0.9°C to 2.2°C by the mid-21st century, relative to the 1970 to 1999 period.⁵⁵ Temperature increases are likely to both increase the intensity of the rainfalls and the occurrence of droughts and dry spells.⁵⁶ Such extreme events impact the life of people in several ways and thus are likely to affect human development.

During the preparation of the global HDR 2008, the HDRO commissioned a background paper to explore the impact that climate change has on human development.⁵⁷ It is significant that the paper begins as follows:

Scientific research throughout the past decades has demonstrated how climatic changes have important impacts on the livelihoods of people around the world. For most of developing countries their level of structural and social vulnerability, are a dangerous combination and a formula for impacts of higher magnitude. Therefore, climatic phenomenon such as tropical storms, floods and droughts, more often become tragedies in these countries.

Ecosystem degradation combined with complex and hilly terrain and increasingly extreme weather due to climate change raise the risk of disasters such as drought, flood and landslides, especially for the most vulnerable population.

This is also true for Rwanda, where the Government recognized that the country is highly vulnerable to climate change-related events and the challenge is of such magnitude as to require a fully developed coping strategy. The Baseline Climate Change Vulnerability Index was produced in 2015⁵⁸ “to identify and characterize the sensitivity of human and natural systems to climate change using ‘composite indices’ together with a baseline of information that provide a framework for the ongoing monitoring of Rwanda’s progress on addressing climate change adaptation requirements”.⁵⁹

The baseline exercise assessed the exposure, sensitivity and adaptive capacity to climate change at the household level in Rwanda. The values were measured on a scale from 0 to 1 and were based on a sample of 1,500 households from the 30 districts of the country and a total of 61 indicators (the outcome is summarized in Figure 2.18). It shows that Kigali City has the lowest Climate Change Vulnerability (CCV) Index value (0.355),

followed by the Northern (0.403), Southern (0.421), Western (0.434) and Eastern Province (0.461); the value for Rwanda is 0.428.

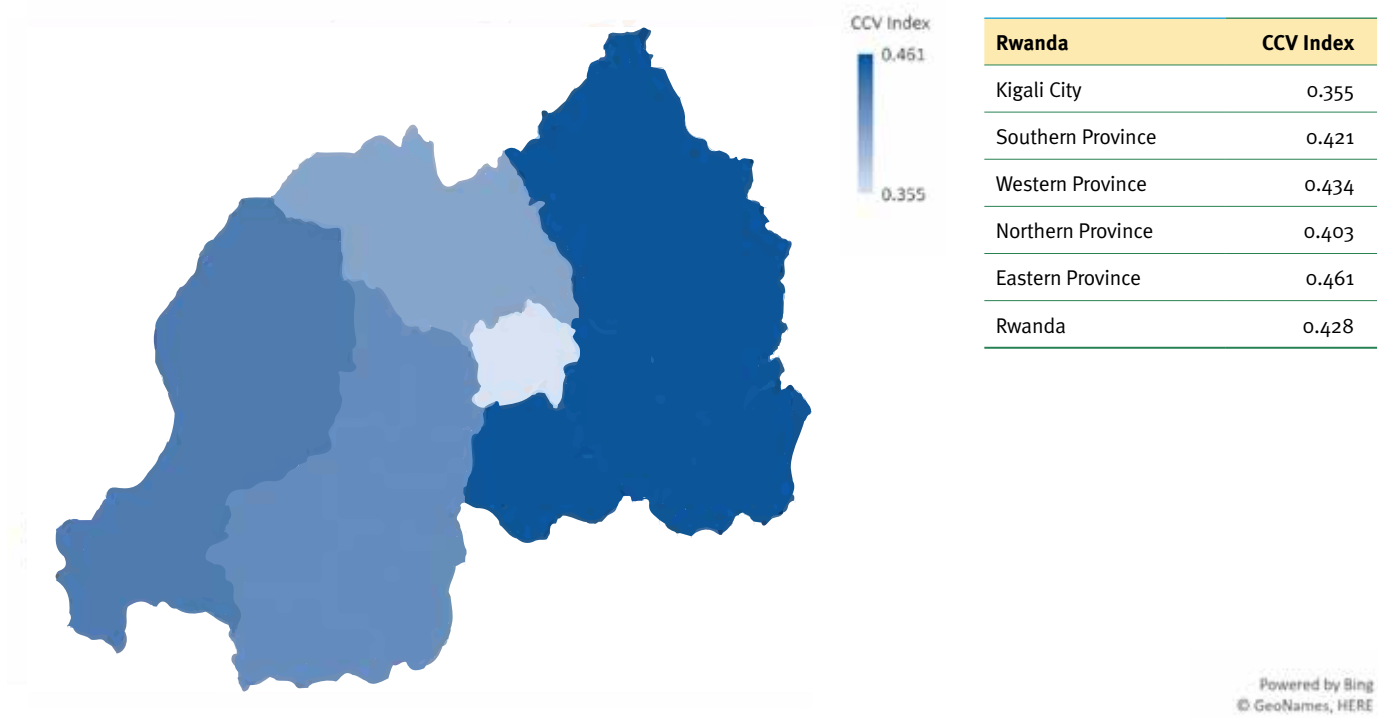
The provinces with the highest levels of vulnerability to climate change are also the most food-insecure (Western Province, parts of the Eastern Province), while the least vulnerable (Kigali City) is also the least food-insecure province.⁶⁰ In the Western Province and parts of the Northern Province, high erratic rains combined with steep terrain result in frequent landslides (on hillsides) and flush floods in the lowlands. These frequently destroy houses, agricultural fields and infrastructure (roads, electricity lines, water supply systems). In the Eastern Province and parts of the Southern Province, climate change effects have mainly been experienced in form of prolonged droughts, which affect both crop and livestock production.

Rural areas are more susceptible to climate change effects than urban areas. This is due, among others, to limited livelihood

The Government recognized that the country is highly vulnerable to climate change-related events, and the challenge is of such magnitude as to require a fully developed coping strategy.

FIGURE 2.18

Rwanda Climate Change Vulnerability (CCV) Index, by province



Source: REMA, 2015

The Government of Rwanda is aware of the challenges that lie ahead in terms of environment, natural resources and climate change management.

diversification, limited access to alternative livelihood opportunities and low levels of knowledge and skills. Moreover, infrastructure coverage (electricity, all-weather roads, clean water supply, etc.) in rural Rwanda is far too low compared to urban areas, which increases the exposure to climate shocks such as prolonged drought, landslides, strong winds and floods, and associated hazards such as outbreaks of epidemics.

The Government's response to environmental and climate change-related challenges

The Government of Rwanda is aware of the challenges that lie ahead in terms of environment, natural resources and climate change management. Therefore, in 2011, it developed a comprehensive strategy to face these challenges, the Green Growth and Climate Resilience Strategy (GGCRS), implemented within the framework of EDPRS 2 and Vision 2020. The GGCRS is jointly implemented by six government bodies: the Ministry of Agriculture, the Ministry of Infrastructure, the Ministry of Trade and Industry, the Rwanda Development Board, the Ministry of Disaster Management and Refugee Affairs, and the Ministry of Environment. Additional financing for green policies is ensured by the activities of the Rwanda Green Fund (FONERWA), which is tasked with mobilizing \$120 million over the entire NST I period.

The GGCRS provides a concrete and holistic response to the challenges that Rwanda faces in the sector and aims to guide the mainstreaming of climate resilience and low carbon development into key sectors of the economy to help the country's transition towards a green economy.⁶¹ To date, the GGCRS has been implemented successfully; it has been successfully mainstreamed into many policies and strategies, including but not limited to the NST I, new priority Sector Strategic Plans, the new Environment & Climate Change Policy,⁶² and the Environment and Climate Change Mainstreaming Strategy (2018).

Under the GGCRS, the Government implemented some interventions to improve agricultural production and address risks

related to climate change. A large proportion of the agricultural sector budget is invested in arable land protection against erosion through terracing. At least 1 million ha of hillside land have been terraced. Large-scale infrastructures for hillside and floodplain irrigation have also been developed in different catchments but protected from erosion (over 73 per cent of total arable land). Afforestation is also progressing; forest cover has registered a growth of 1 per cent per year for the last decade.⁶³ In 2017/18 alone, a total of 3,253.95 ha of forests were planted and an area of 768 ha of degraded forests was rehabilitated.⁶⁴

The Government has also rolled out an ambitious program to relocate all households living in areas considered high risk, including steep slopes and wetlands; households that have been affected by climate-related disasters such as flooding and landslides are considered a priority. This program will reduce the risk of exposure to deprivation and death, thereby contributing to human development. The incentives to relocate from high-risk zones are attractive (e.g. the Integrated Development Project [IDP] model villages) because the relocated households often receive support to establish better housing as well as economic assets such as livestock.

The Government is currently implementing the Sustainable Energy for All (SE4All) Action Agenda, which aims to achieve energy efficiency and deliver renewable energy (biomass, off-grid and power generation from renewable energies).⁶⁵ According to the Agenda, Rwanda will achieve an energy mix with 52 per cent of energy coming from renewable sources by 2024. To this end, the country established the Renewable Energy Fund with an International Development Association (IDA) credit of US\$27.5 million to increase electricity access through off-grid technologies and to facilitate private-sector participation in renewable off-grid electrification.⁶⁶

Furthermore, the Government is cognizant of the role that urban areas play in the fight against climate change and environmental degradation. It embraces the concept of green urbanization, integrating it in its wider urbanization strategy. In 2015, the Ministry

of Infrastructure published the National Roadmap for Green Secondary City Development, which serves as a blueprint to develop Rwanda's six secondary cities,⁶⁷ as identified by the EDPRS 2. The Roadmap guides the process of urbanization and infrastructure development in its aims to achieve green and sustainable growth.⁶⁸

Remaining challenges in addressing sustainability

A high-level policy dialogue on GGCRS in April 2016,⁶⁹ which brought together the six responsible bodies, stressed the need to address the gaps that still remain at the upstream policy level and for more stakeholders to be engaged for downstream implementation. Several policies that were formulated before the GGCRS, specifically the Land Management Policy, the Water Resource Management Policy and the Forest Management Policy, currently under the Ministry of Environment (MoE), do not coherently reflect the green economy concept and need to be reviewed.

Key emerging environmental issues need to be urgently yet intelligently approached, engaging the economic sectors and institutions that are to carry out the regulations in the future. These issues are, notably, the increase in air pollution due to growing transport emissions and the encroachment of wetlands, especially in residential and high economic zones around Kigali City. Air pollution is a growing issue causing increasing asthma and potentially other health issues.

Emissions are estimated to increase by approximately 85 per cent by 2030 compared to 2015 levels, transport being the biggest contributor.⁷⁰ The benefits of potentially reduced healthcare costs and improved productivity must be factored into a comprehensive cost-benefit analysis and carefully compared with the expected costs (e.g. of introducing new regulations and lost revenue from taxes on older vehicles) in order to recommend feasible pathways including new revenue sources. Technical capacity to address these emerging issues is still limited.

Irrigation infrastructure is being developed but remains limited in terms of coverage.

Moreover, the small, fragmented and subsistence nature of most farming units make it difficult for most farmers to afford irrigation technology unless it is heavily subsidized by the State. Innovative approaches to building climate resilience among Rwandan farming households will be required.

2.4 Chapter summary

Over the last two and a half decades, since emerging from the 1994 Genocide against the Tutsi, the Government has transformed the economy, implemented decentralization, expanded education and health opportunities, and significantly reduced poverty and social vulnerability. It has expanded investments in economic infrastructure including in areas of transport, telecommunication and energy in order to further transform the economy. HGSs, innovative policies rooted in the Rwanda's culture and starting in most cases as local-level innovations, have played a major role in the country's post-genocide development efforts.

These elements have all contributed to the strong and steady progress in human development that led Rwanda to become one of the top 20 best performers in terms of improvement in their HDI level. Several challenges remain, however. Poverty, both monetary and multidimensional, has been steadily reduced over the past 20 years. Yet, the rate of progress in human development has slowed down over the last five years. Inequality continues to affect human development in Rwanda, resulting in a loss of 36.4 per cent of its HDI value.

Rwanda continues to face challenges in its path towards structural transformation and the delivery of sustainable economic growth. Due to underemployment and the limited expansion of manufacturing, combined with a youthful population and a persistent skills mismatch, Rwanda must enhance its efforts to improve the quality of its human capital through the provision of quality education. Health outcomes improved steadily, yet lingering issues in nutrition continue to affect children and maternal health outcomes. The private sector continues to be dominated by

Over the last two and a half decades since emerging from the 1994 Genocide against the Tutsi, the Government has transformed the economy, implemented decentralization, expanded education and health opportunities, and significantly reduced poverty and social vulnerability.

micro, small and medium enterprises with low productivity.

In addition, human development levels and progress in the Rwanda are uneven. The main divide separates Kigali's three districts (Kigali City) from the provinces, with human development levels being markedly higher in Kigali City. Provinces are closer together in terms of human development levels, but their progress over the years is also uneven. Going forward, Rwanda should continue to address the human development divide between rural and urban areas.

Climate change and environmental challenges weigh heavily on the capacity of the

country to improve its human development. Agriculture is affected by droughts and erratic rainfalls as well as floods, although their impact varies from one province to the other, adding a layer of complexity to the country's vulnerability assessment and coping strategies. Floods, landslides and soil depletion impact the population further, causing material losses and resettlements.

It is within this complex context that this Report will explore the contribution of HGSs and their potential for human development in Rwanda, with a view to inform their implementation in the transformation era.

A black and white cow is shown in a wooden stall, eating a large bundle of fresh green grass. The stall is constructed from thick wooden posts and beams. In the background, there are windows with light blue frames. The overall scene is set in a rural, agricultural environment.

3

**Policy innovation
home-grown
solutions in Rwanda**



3.

Policy innovation through home-grown solutions



Lifting people out of poverty, ensuring that they have a voice in their governance, and providing opportunity for them to contribute to community and national development were considered priorities of the post-genocide government.

3.1 Home-grown solutions: Development and the implementation process

3.1.1 An overview

This section discusses the evolution of HGSs in Rwanda in terms of three interconnected aspects: (i) who is involved – agencies and other actors involved in the development and implementation process; (ii) what is to be accomplished – desired outcomes; and (iii) progress towards achieving results. This will allow to understand changing contexts and the development, main tenets and anchors of each HGS.

The post-genocide Rwandan Government set out to address poverty and human deprivation with a distinct motive – rebuilding the nation. Lifting people out of poverty, ensuring that they have a voice in their governance, and providing opportunity for them to contribute to community and national development were thus considered priorities of the post-genocide government, which were meaningfully realized after the transition.

In the search for solutions, the Government had to be aware of Rwanda's unique situation, for instance: the need to construct an identity that would emphasize unity in diversity and to restore citizens' trust in the State and Government; the obligation to establish a participatory, democratic governance framework while building social cohesion; and the urgency to eradicate extreme poverty and restore human dignity among resource-poor and disillusioned citizens, with limited state financial capacity. Rwandan leaders realized early on that the challenges were essentially Rwandan and for Rwandans to solve.

The successful pilot of the participatory poverty assessment using *Ubudehe mu kurwanya ubukene* (the collective effort to

fight against poverty) in 1999–2000 helped to enhance the understanding of poverty in Rwanda and its underlying causes. *Ubudehe* inspired further innovation of traditional social and cultural values, because the post-genocide Rwandan Government realized that policy innovations could be drawn from the pre-colonial Rwandan society in order to help eliminate poverty and rebuild social cohesion if favourable conditions were put in place.

Rwanda was conditioned by its recent experiences to experiment with local innovations. It eventually adopted, adapted and/or integrated them into national development policy, mostly building on its rich cultural heritage and social values which worked for its society, albeit with some modifications. The firm underpinning of HGSs on Rwanda's history and culture gave these policies an innovative edge with potential to effectively address complex challenges often encountered while trying to achieve various national development goals. By the time the implementation of the EDPRS 2 begun most of these HGSs had influenced or become major components of sectoral and national policies.

HGSs were pursued in diverse sectors with broader national goals. They have helped the country deal with its historical and post-genocide challenges in governance, poverty reduction and socio-economic transformation, including reintegration, reconciliation and resettlement. Subsequently, HGSs involved post-emergency citizens' mobilization to engage in productivity and nation building. The five HGSs analysed in this Report are briefly described below.

3.1.2 The *Girinka* Program

The term *Girinka* (one cow per family) is a traditional Rwandan greeting, blessing someone with wealth. The concept of *Girinka*

was first introduced by King Mibambwe Gisanura (1602–1660), who decreed that “no Rwandan child was ever to lack daily milk again while others had plenty”. Since then, Rwandans have given cattle to one another, or milk to those in need. Cows were a central pillar in the economy and socio-cultural structure of Rwanda, hence possessing cows meant being wealthy economically, socially and culturally. Cows served and still serve as instruments for building new relationships, restoring broken relationships, getting married (by being able to pay bride price or bridal gifts), and paying homage. In addition, and perhaps more importantly, cows enable households and individuals to access or afford necessities and luxuries.

Given its centrality in the economic and social wellbeing of Rwandan communities, the post-genocide government considered a cow an effective instrument in the efforts to resolve the complex multi-dimensional challenges that Rwanda was confronted with. These revolved around rebuilding social cohesion, promoting good governance, eradicating poverty, improving nutrition and ensuring sustainable transformation.

In post-genocide Rwanda, *Girinka* started as a presidential initiative but quickly became a national program. It was introduced by the President of Republic of Rwanda in 2006 and approved by the cabinet meeting of 12 April 2006 as part of the strategies to fight against rural poverty in Rwanda, malnutrition and food insecurity.⁷¹ The *Girinka* Program is therefore part of the measures of the Vision 2020, the EDPRS, NST 1 and the IDP.⁷² It aims, *inter alia*, to improve the nutrition status of children and mothers, increase crop productivity, increase household incomes by selling milk not consumed by the household, and promote social harmony and cohesion.

The primary targets of *Girinka Munyarwanda* are the poorest households (primarily those in Ubudehe categories 1 and 2). The beneficiaries are nominated by fellow citizens at the village level in the community assembly due to being poor and fulfilling the conditions prescribed by the Ministerial Guidelines, with verification at cell, sector and district levels and approval at the district level.

Institutionally, the *Girinka* Program is co-ordinated by RAB under the policy direction of the Ministry of Agriculture and Animal Resources (MINAGRI). As a decentralized social protection program, however, a sizable proportion of the implementation tasks are carried out by the local authorities under the policy direction of MINALOC.

Girinka experienced some challenges (including giving cows to the non-targeted households and mismanagement by beneficiaries) until the new guidelines of 2016 were issued. The Guidelines were again revised in early 2018 as part of the continuous reforms. They aim to, *inter alia*, streamline the selection of beneficiaries, procurement, allocation and management of the cows under the *Girinka* Program so as to effectively achieve the program objectives, enhance the impact and sustain the outcomes. The Guidelines⁷³ set standards on the quality of cows to be distributed: (i) heifers must be of exotic breed with at least 50 per cent Friesian, Jersey or Brown Swiss; (ii) they must weigh at least 220 kg (for hybrid Jersey) or 250 kg (for hybrid Friesian or Brown Swiss); (iii) they must be 18–36 months old; and (iv) they must be at least four months pregnant).

The new Guidelines streamlined and clarified who the target beneficiaries are and made specific provisions to protect the poor. Previous guidelines, for example, favoured those with assets because they required that beneficiaries have at least .25 ha of land and paved cowsheds, etc., which the poor would certainly not be able to afford.

The community has also been given significant powers in selecting who will be included as the beneficiaries and several committees have been set up to provide program oversight. The list is publicly displayed for at least three days to allow for complaints to be raised and for citizens to confirm that only those who are eligible and are selected by the community are on the final list. The list undergoes a strict verification exercise. *Girinka* Committees, which were established under the 2016 guidelines, coordinate and monitor *Girinka* activities at the village, cell, sector and district levels.

The primary targets of *Girinka Munyarwanda* are the poorest households. The beneficiaries are nominated by fellow citizens at the village level in the community assembly.

The *Girinka* Program is funded largely through pass-on gifts.

At the launch of the program in 2006, the Government of Rwanda established a distribution target of a total of 350,000 cows, i.e. to benefit 350,000 households by 2017. As of end of June 2017, 288,230 households had received a cow (Figure 3.1).

Figure 3.1 shows how 82 per cent of the initial target set in 2006 (when the EDPRS 1 was launched) was achieved. While the program covered all regions of the country, the Eastern Province benefited the most from the *Girinka* Program, followed by the Southern Province. It must be noted that the provinces with the highest levels of poverty are the Western Province (47.1 per cent) and the Northern Province (42.3 per cent), followed by the Southern Province (41.4 per cent) (NISR, 2018a). In terms of districts, notably Gasabo (109 per cent) and Gicumbi (102 per cent) had exceeded their targets.⁷⁴

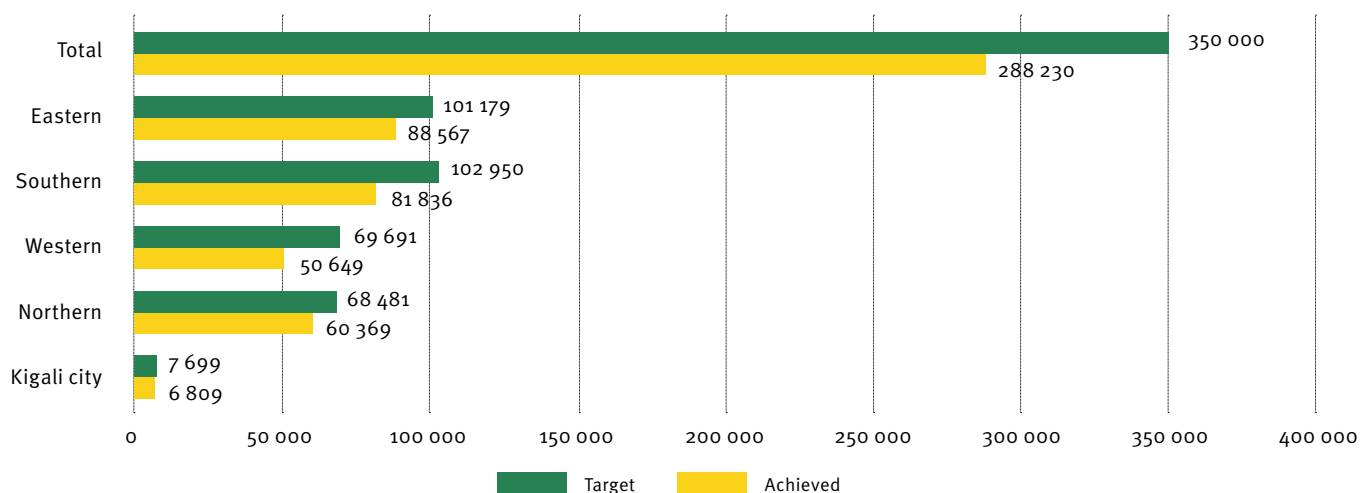
In terms of policy linkages, *Girinka* contributes to the realization of the Vision 2020, implemented through different medium-term plans, including the EDPRS 1 and 2, the Strategic Plan for Agriculture Transformation (PSTA) now in its fourth phase (PSTA 4), and the Integrated Development Programme (IDP). The IDP is a holistic program to transform human settlements with infrastructure and service delivery, through planned model

settlements where citizens are expected to easily access all essential services. Model villages are being piloted across all districts. With the adoption of the new long-term plan, Vision 2050, and the seven-year government program, the National Strategy for Transformation (NST I), *Girinka* is directly contributing to the achievement of the strategic objectives of these frameworks.

The *Girinka* Program is funded largely through *Kwitura* (pass on gifts) (30 per cent) and partners, including the private sector (30 per cent), while the government-earmarked funds account for 29 per cent and other local initiatives, 12 per cent. Significantly, as shown in Figure 3.2, cows distributed by earlier beneficiaries as pass on gifts were the largest source of cows. Hence, the program was already self-propelling a decade after its launch. It is also observed that the local government budget from which the national *Girinka* conditional grant is allocated is no longer the main source of funding for *Girinka*. The Government of Rwanda has succeeded in mobilizing other development actors, especially CSOs and FBOs, to embrace the program. These include individual citizens, NGOs, cooperatives and other private sector organizations/federations, and other corporate entities.

FIGURE 3.1

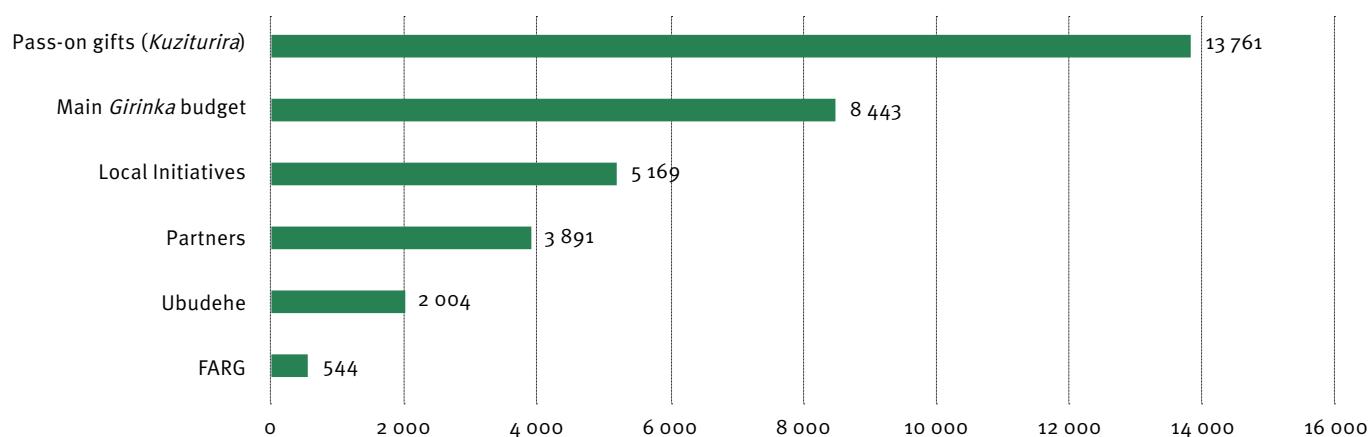
Number of cows distributed under the *Girinka* Program, by province, 2006–2017



Source: MINAGRI, *Girinka* Annual Report, 2017.

FIGURE 3.2

Cows distributed, by source, 2006–2017



Source: RGB, 2018b.

3.1.3 The Vision 2020 Umurenge Program

VUP is a comprehensive social security program with three interlinked and complementary components. The **Safety Net component** includes the Direct Support (VUP-DS) scheme, which is provided monthly to a poor household that has no one able to work; the Public Works (VUP-PW) program, which involves providing short-term employment to a significant number of people to implement a public/ community infrastructure project; and nutrition-sensitive direct support. The **Livelihood Enhancement component** includes financial services (VUP-FS), skills training and asset transfers. The third component, **Sensitization and Community Mobilization**, focuses on ensuring availability of the proximity advisory services, awareness raising and communications. VUP-DS, VUP-PW and VUP-FS are the oldest parts of the program that have been implemented and cover the highest number of households.

VUP was launched as a flagship program under EDPRS I with the aim of eradicating extreme poverty by 2020.⁷⁵ VUP was maintained and scaled up under EDPRS 2 and is an integral part of Rwanda’s social protection policy. It was envisaged to be achieved

through the acceleration of poverty reduction by pursuing the following key objectives:

- Release the productive capacities of people and offer solutions adapted to their needs.
- Improve community livelihood assets (e.g. eco-systems rehabilitation) and ensure their sustainable usage.
- Increase the targeting of social protection to the most vulnerable.

The program components are expected to impact significantly on the standards of living of beneficiary households because VUP provides direct income-earning opportunities (by employing beneficiaries and paying them a decent wage) and regular cash grants to the poor categories of citizens who are unable to work.

More specifically, the VUP-DS scheme aims to provide regular and reliable income support to extremely poor, severely labour-constrained households, and to ensure that they are able to meet their most basic needs and are protected from destitution.⁷⁶

The primary objective of the VUP-PW scheme is to provide short-term employment opportunities for extremely poor households with labour capacity. Depending on household circumstances, PW wages are expected to either support households to meet their

The program components are expected to impact significantly on the standards of living of beneficiary households.

Source: RGB, 2018b.

VUP-FS supports poor and vulnerable households to develop sustainable income-generating activities through: the provision of formal training in financial literacy; technical support to the development of applications for micro-credit; and coaching on micro-enterprise management.

basic needs in times of hardship (such as during seasonal periods of food insecurity) or provide additional income for investment in livelihood development activities. A second objective is to support long-term economic development through community asset creation.⁷⁷

VUP-FS supports poor and vulnerable households (Ubudehe Category 1 and 2) to develop sustainable income-generating activities through: the provision of formal training in financial literacy; technical support to the development of applications for micro-credit; and coaching on micro-enterprise management.⁷⁸

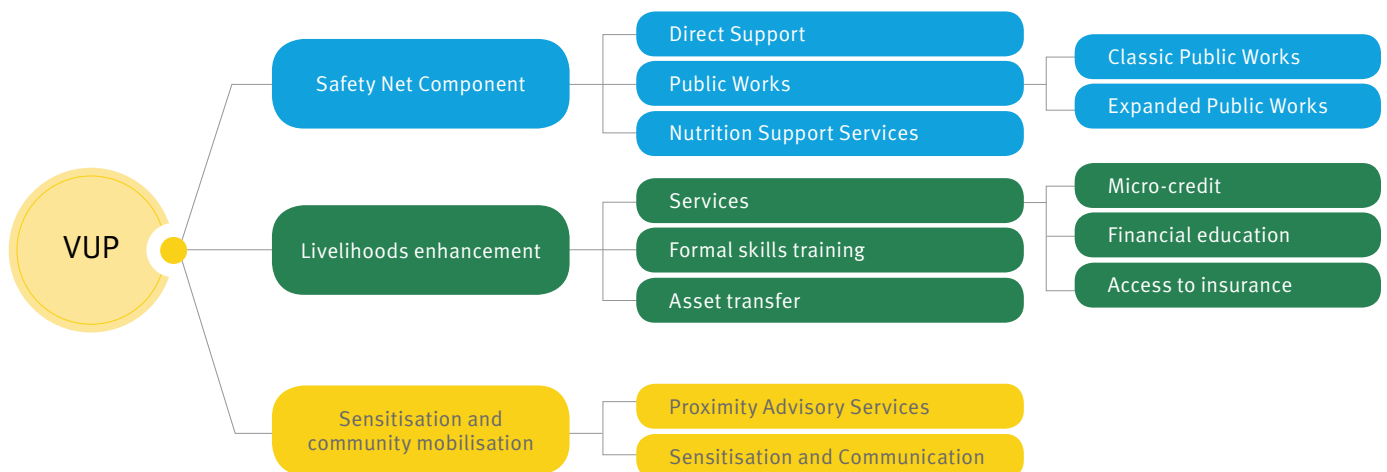
The VUP-PW design is flexible: if one person in a beneficiary household fails to work for reasons such as illness, another member can participate in his or her stead, without any complications. This ensures that a beneficiary household does not miss any day's earnings.

The Government introduced the Expanded Public Works, or ePW⁷⁹ as a part of the PW component of VUP. This new ePW approach targets moderately labour-constrained households (also defined as 'with caring responsibilities') to include more vulnerable households

Another component that was recently rolled out and therefore not captured in this analysis is the Nutrition-sensitive Direct Support for children under three and pregnant women in the poorest households. Figure 3.3 provides an illustration of the current VUP scheme components. Under EDPRS 2, the Government pledged to increase the coverage and targeting of the extreme poor through core social protection programs such as VUP-DS and VUP-PW between 2013 and 2018, within the framework of the Social Protection Strategy (2013). The Government aimed to scale up and double the number of those in extreme poverty receiving direct support and public target works in core social protection programs from 5 to 10 per cent of the population. Over the 2013/14–2017/18 period, VUP-DS was envisaged to reach 240 to 416 sectors and 57,000 to 105,000 households. During the same period, VUP-PW was planned to be scaled up from 180 to 300 sectors and from 100,000 to 160,000 households.⁸⁰ The scaling-up plan also included an increase in the average number of days worked, from 68 to 75. Furthermore, the Government pledged to improve

FIGURE 3.3

Schematic structure of the VUP scheme, by component



Source: LODA, 2016.

social protection programs including VUP in order to take advantage of district poverty headcount data and to strengthen the Ubu-dehe categorization process.⁸¹ Administrative data from the Joint Sector Reviews Reports⁸² show how VUP-DS met its geographical target and is now operational in all 416 sectors of the country, but it only covered 95,005 households instead of the planned 105,000. VUP-PW (classic) was extended to 244 sectors instead of the envisaged 300 and covered 134,703 households instead of the targeted 160,000. A possible reason for not meeting the targets is the introduction of the ePW in 2016/17; this program, not included in the Strategy, is in operation in 80 sectors and benefits 13,142 households. VUP-FS, which is also not included in the Strategy, is operational in 271 sectors and reached 39,971 beneficiaries in 2017/2018.⁸³ Table 3.1 shows the extent of coverage based on administrative data gathered by UNICEF and LODA (2019).

Over time, the trend in the percentage of VUP-DS beneficiaries shows a more balanced distribution over the provinces, while the Eastern and Southern Provinces remain the main beneficiaries (Figure 3.4).

TABLE 3.1

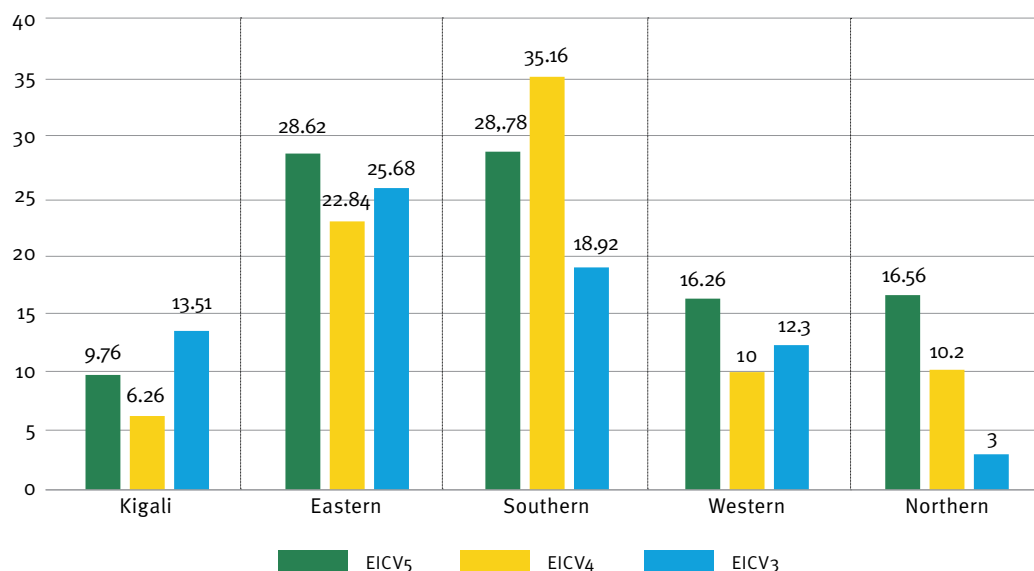
VUP beneficiaries for fiscal year 2017/18

Programs	Geographical coverage	Number beneficiaries (latest year available)
VUP Direct Support	416 sectors	95 004 households
VUP Classic Public Works	244 sectors	134 703 households
VUP Expanded Public Works	80 sectors	13 142 households
VUP Expanded Direct Support	416 sectors	130 000 households in 2019
VUP Nutrition-Sensitive Direct Support	247 sectors	50 000 individuals in 2019
VUP Financial Services		
VUP Asset Grants	271 sectors	39 971 individuals
	89 sectors	5 044 households

Source: Social Protection booklet (UNICEF-LODA, 2019).

FIGURE 3.4

Trend in the percentage of VUP-DS beneficiaries over the 2010/11–2016/17 period



Source: National Institute of Statistics, EICV 5, authors' tabulation.

TABLE 3.2**Percentage of VUP beneficiaries, by age group of household heads and VUP scheme**

Age group of household head	VUP-Direct Support (%)	VUP-Public Works (%)	VUP-Financial Services (%)
Under 18 yrs	0.7	0.3	0
19–64 yrs	36.6	88.7	92.7
65+ yrs	62.7	11	7.3
Total	100.0	100.0	100.0

Source: National Institute of Statistics, EICV 5, authors' tabulation.

TABLE 3.3**Wages rates for the VUP-PW program**

Category of beneficiary	Daily wages (Rwf)
1 Ordinary labourers	1 500
2 Semi-skilled labourers	2 000
3 Technician	3 000
4 Activity coordinator	3 000
5 Supervisors	5 000

Source: LODA (2016).

TABLE 3.4**Grant size for VUP-DS beneficiaries**

Household size	Monthly grant amount (Rwf)
1 person	7 500
2 people	12 000
3 people	15 000
4 people	18 000
5 or more people	21 000

Compilation from the field/LODA (2016).

In terms of age groups, VUP-DS measures predominantly target the over 65 group, whereas the 19–64 group is the largest beneficiary of VUP-PW and VUP-FS (Table 3.2).

By local market standards, VUP offers a competitive and potentially transformative wage (Table 3.3), especially to rural unskilled people who usually depend on seasonal agricultural work and a few construction activities (LODA, 2016). Table 3.4 presents the average wages earned by different categories of beneficiaries of the VUP-PW component. Wage rates vary according to the prevailing market wage rates in a respective sector or district; for instance, the wages of casual labourers range between Rwf1,000 in rural areas and Rwf2,000 in Kigali City.

According to the field findings and LODA (2016), VUP-DS grants are paid every two weeks; it used to be quarterly, but many beneficiaries reported a misuse of resources.⁸⁴

3.1.4 Community-based health insurance

Following the 1994 Genocide against the Tutsi, Rwanda's healthcare systems, like other social and economic infrastructure, had broken down. Human resources were in severe shortage and the health infrastructure was also broken down. Social initiatives such as *mutuelles*, which had been implemented previously, were weakened as the entire population was vulnerable and not socially cohesive. Thus, the Government provided free healthcare with support from humanitarian actors. As this support dwindled, the Government could not sustain free healthcare and introduced user fees. This significantly reduced healthcare utilization, especially among the poorest. Per capita health utilization was 0.3 and dropped further to 0.25.⁸⁵ A mechanism was needed to guarantee access to healthcare for the most vulnerable and promote equity among members. Post-genocide Rwanda started Community-Based Health Insurance (CBHI)⁸⁶ in 1999, with a pilot in three health districts (under the district hospitals) of Kabutare, Byumba and Kabgayi. The pilot involved 52 health centres and three hospitals. Its success led the Government to roll out the scheme across the country, and in 2004, a CBHI policy was formulated.

In 2007, the CBHI policy was reviewed for various reasons including to set a flat premium of Rwf1,000 for all (topped up by the Government with a further Rwf1,000 per member, for a total contribution of Rwf2,000). However, these premiums were not adequate to cover the financial gap. In order to ensure equity, premium rates were redesigned on the basis of poverty stratification using the *Ubudehe* categories. Since July 2010, CBHI subscribers pay their premiums based on a sliding scale. The premium for Category 1 is currently Rwf2,000 and is covered by the Government.⁸⁷ The Category 2 and 3 beneficiaries, who constitute around 82 per cent of subscribers pay Rwf3,000 per person, and Category 4 beneficiaries pay Rwf7,000. Patients pay Rwf200 co-payment per visit and 10 per cent of the total hospital bills at primary healthcare level (health posts and health centres),⁸⁸ except for *Ubudehe* Category 1 patients whose premiums and all hospital bills are covered by the Government.

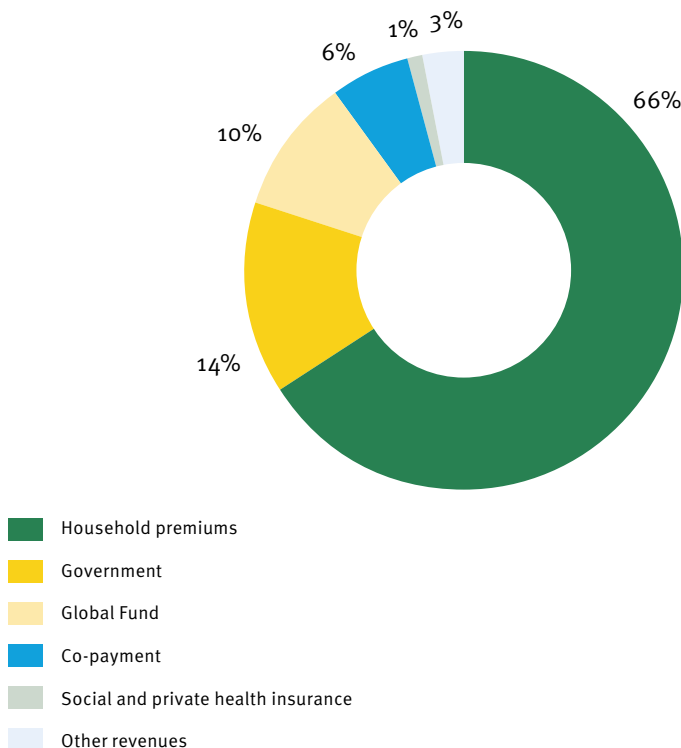
Risk-pooling is made at the household level, and each household is insured as a unit. For anyone to access healthcare, all members of the household must be fully subscribed. This risk-pooling mechanism has enabled substantial amounts to be collected to fund healthcare even with low premiums. As a result, household premiums constitute two-thirds of total funding to CBHI (Figure 3.5).

Table 3.5 shows that the amount paid by household members is defined by *Ubudehe* classification. It is also important to note that most VUP beneficiaries are in *Ubudehe* 1 and 2 categories, i.e. living in abject poverty and very poor.

Due to subsidy and poverty reduction programs, the percentage of extremely poor households insured has increased. This has led to increased access to quality healthcare by all Rwandans irrespective of income levels. As a result, Rwanda has made significant progress in improving the health of women and children and achieved the 4th and 5th Millennium Development Goals (MDGs). According to RGB (2016), HGSs contributed to the achievements of a 70 per cent decline in the children mortality rate and an

FIGURE 3.5

CBHI sources of funding



Source: Kalisa et al., 2015.

TABLE 3.5

CBHI fees based on *Ubudehe*

<i>Ubudehe</i> categories	CBHI categories	Amount (Rwf)
1	1	2 000 (subsidized by the Government)
2	2	3 000
3	3	3 000
4	4	7 000

Source: RSSB (2019).

80 per cent decline in the maternal mortality rate in Rwanda from 2000 to 2015, and other health sector reforms have also made significant contributions.

The decline in enrolment rates between fiscal years 2010/11 and 2013/14 was due to several factors, including the review of the premium structure, which nearly doubled the amounts payable.

Based on administrative data provided by MINALOC, starting from a coverage of 7 per cent in 2003, the scheme reached 91 per cent of the target population by fiscal year 2010/11. CBHI coverage was 83 per cent in the fiscal year 2017/18 and in many areas,⁸⁹ it reached close to 100 per cent of the targeted beneficiaries.

The decline in enrolment rates between fiscal years 2010/11 and 2013/14 was due to several factors, including the review of the premium structure, which nearly doubled the amounts payable. This mostly affected people in category 3 and 4, who are usually supported by partners (such as NGOs and private firms) through the local government authorities. CBHI coverage over the fiscal years 2014/15 and 2017/18 increased and stabilized above 80 per cent (Figure 3.6).

Using EICV data, the CBHI coverage is higher in the Eastern, Northern and Western Provinces and lower in Kigali City and in the Southern Province. The reasons for the lower coverage in Kigali City could be linked to the higher density of wealthier individuals who can afford other insurance schemes (Figure 3.7).

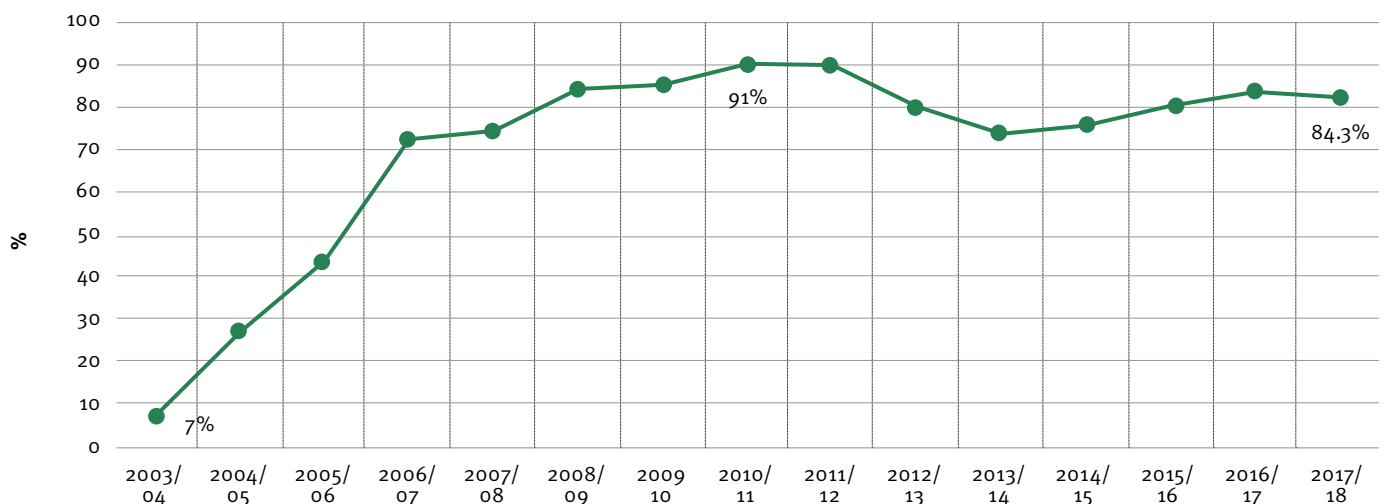
CBHI was managed by the Ministry of Health (MoH) until 2015, when the scheme was handed over to the Rwanda Social

Security Board (RSSB) following reports of challenges largely attributed to mismanagement.⁹⁰ The RSSB has the professional experience and systems to manage the scheme.

The state institutions, notably RSSB, MoH, MINALOC and local governments, have played a critical role in terms of professional management, stakeholder mobilization and service delivery. Indeed, CBHI enrolments have increased significantly due to the mobilization drive of the local authorities. There are CBHI offices based in the health centres at sector level, coordinated at district level by RSSB branches. Mobilization Committees at sector and district level further facilitate easy mobilization of and effective service delivery to CBHI subscribers. A database of households in all villages (numbering more than 14,000) was developed as the basis for CBHI planning. Each household is assessed based on the *Ubudehe* category, which refers to wealth (e.g. possession of a house, property ownership, economic activities, and the number of regular meals of the household). The information is provided by the household and verified by local authorities. These *Ubudehe* categories are reviewed every three years and are the basis for, among others, CBHI premiums.

FIGURE 3.6

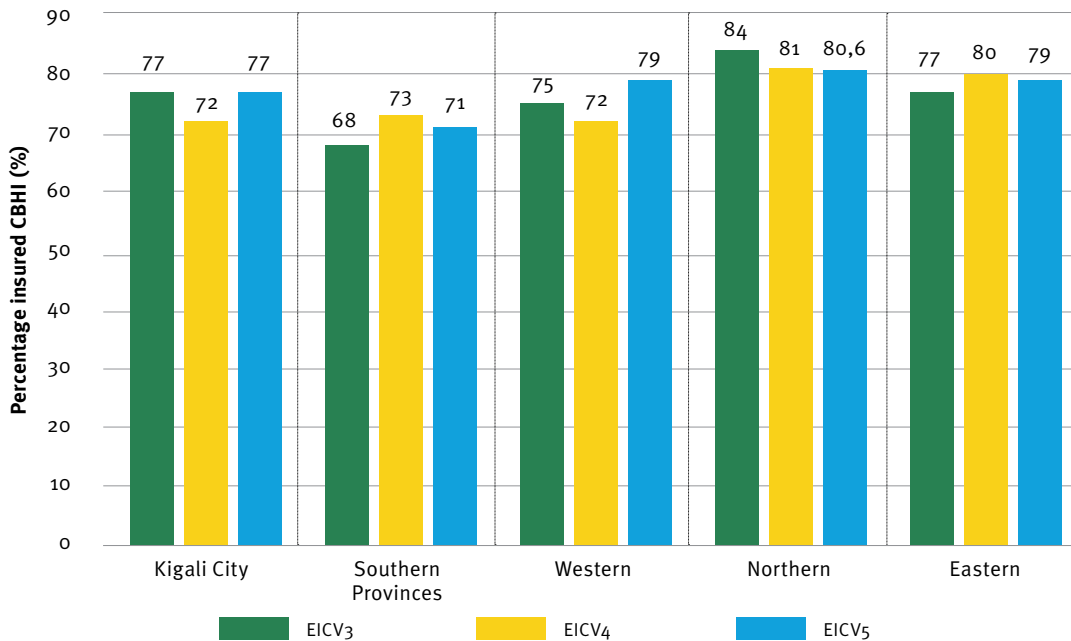
Evolution of CBHI coverage, December 2003 to July 2018



Note: The years from 2011 onwards are fiscal years.

FIGURE 3.7

CBHI coverage for EICV 3, EICV 4 and EICV 5 respondents



3.1.5 Umuganda

Umuganda is a traditional practice deeply rooted in Rwandan culture. It was used as social and economic development mechanism in which community members pulled efforts together to achieve or complete a task. Such tasks were usually considered difficult for an individual, e.g. cultivating a large plot of land in a short time or harvesting and reconstructing a neighbour’s house. In terms of social protection, *Umuganda* was often used to support vulnerable people (the disabled, the sick and the elderly) to cultivate fields and build decent housing for other vulnerable people, such as widows, orphans and those who had faced disasters or other forms of calamities. *Umuganda* was also the main mechanism through which people were mobilized to transport the sick to health centres (Mukarubuga, 2006) since there was no motorized transport.

Umuganda expanded in scope as the country evolved socially, culturally and politically. While the practice was traditionally a social and community development tool,

it was used by post-colonial governments to mobilize the population to solve social and economic problems for mutual benefits. *Umuganda* was made compulsory for every adult (over the age of 18) by Presidential Decree in 1974.

At present, *Umuganda* is considered by the Government of Rwanda as “a mechanism for achieving the rights to education, health, and to a clean environment”.⁹¹ Its mission is to encourage Rwandan communities to address challenges in a collective manner and to achieve sustainable socio-economic development and social cohesion.⁹²

Umuganda is regulated by Law No. 53/2007, the Prime Minister’s Order No. 58/03 and recently the Revised *Umuganda* Policy and Strategy 2017–2022. *Umuganda* is coordinated by the MINALOC. The Revised Strategy specifies that:

...this ministry is expected to ensure that the frameworks establishing relationships with Government and its partners are put in place and that they are substantive in nature. (...) Further, MINALOC is expected to take

Umuganda is considered by the Government of Rwanda as “a mechanism for achieving the rights to education, health, and to a clean environment”.

*the lead in coordinating the interventions of different actors from public, private and civil society spheres as provided for in the legal instruments establishing Umuganda and its functioning, in addition to the actions embedded in this policy.*⁹³

MINALOC is also tasked to ensure cohesiveness among the different actors, to lead in the identification of challenges that can be solved through *Umuganda* and to establish a monitoring and evaluation framework.



Official logo of *Imihigo*

3.1.6 *Imihigo* (performance contracts)

The term *Imihigo* refers to an ancient Rwandan tradition of *vowing to deliver or achieve*. It derives from the term *gubiganwa*, which means competition. Thus, *Imihigo* have three facets: *gubiga*, where an adult man or woman of sound mind pledges or commits to achieving a certain target or accomplish something, and vows to deliver on his/her own promises; *gubiganwa*, where different people, groups or communities or other entities compete among themselves in terms of who delivers best on their vows; and *gubigurira*, where the people or entities that set targets are assessed to establish whether and to what extent they have delivered on what they promised. Those who achieve their targets are praised, sometimes rewarded, and earn respect in the community. When the target is not achieved, the entity or the person needs to assess the reasons for the lower-than-expected performance and determine how to improve in the next period.

Imihigo was introduced by the Government in 2006 as a part of a wave of local government reforms that streamlined territorial administration and sought to position and empower local government entities as the centres of participatory governance, inclusive development and citizen-centred service delivery. The Government aimed to deepen local accountability, establish innovative leadership and promote participatory governance while fast-tracking poverty reduction and local development. The first *Imihigo* was signed on 4 April 2006.

The term *Imihigo* refers to an ancient Rwandan tradition of *vowing to deliver or achieve*.

The concept of *Imihigo* is based on three key elements:

- 1) **Volunteerism:** Leaders pledge or vow to achieve certain results on a voluntary basis. This, however, is subject to national guidance to ensure consistency with national priorities and local needs.
- 2) **Ambition:** Leaders pledge to achieve major transformational results, and not limit themselves to easily achievable ones.
- 3) **Excellence:** *Imihigo* seeks to achieve an outstanding performance worthy of praise. This should be reflected in the quality, efficiency of execution and cost-effectiveness. Key elements of innovation are reflected in the ability to achieve results in the face of the challenges.

In terms of design, the starting point is to understand the existing challenges that citizens identify as impediments to development. It is a bottom-up process in which issues are brought from the village level up to the cell, sector and then district level. The District Mayor then signs the performance contract with the President. Meetings are held to help the different local levels harmonize their *Imihigo*.

The central government also designs its own *Imihigo* where line ministers sign contracts with the President. The line ministers and the CEOs of RDB, RGB and the Rwanda Mines, Petroleum and Gas Board (RMB) in turn sign contracts with the respective leaders of departments or agencies attached or affiliated to their line ministries. Since 2015, the concept of Joint *Imihigo* was introduced for selected cross sectoral areas that have greater impact of the socio-economic transformation of the Country that include agriculture, energy, exports, job creation, service delivery, social protection and urbanization.

The bottom-up process then converges with the high-level national priorities, which are identified as strategic national targets in different development domains. The district authorities then integrate them into their own plans depending on their specific local context. Thus, *Imihigo* now not only serves as a public sector performance management framework, but also increasingly becomes an

TABLE 3.6

The *Imihigo* design process and outputs in decentralized entities

Level	Process	Output
District	District mayors sign <i>Imihigo</i> with the President.	District <i>Imihigo</i>
	The central government team reviews district <i>Imihigo</i> for quality assurance and alignment with national plans and budget.	
	The district authorities integrate national priorities from sector ministries and ensure that the <i>Imihigo</i> are consistent with the National Agenda.	
	District <i>Imihigo</i> priorities are reviewed and approved by the District Council.	
	The district technical team ⁹⁴ integrates the local development priorities into the district development strategies with the bottom-up <i>Imihigo</i> priorities.	
The District Mayor sets up a team headed by the Vice Mayor with portfolio for economic development to define <i>Imihigo</i> .		
Sector	The district authorities review sector <i>Imihigo</i> and the Mayor signs with the Sector Executive Secretary (SES).	Sector <i>Imihigo</i>
	The SES sets up a team, which compiles sector <i>Imihigo</i> from cells and forwards it to the sector council for approval.	
Cell	The Cell Executive Secretary (CES) forwards cell <i>Imihigo</i> for review and verification by sector authorities and then signs with the SES.	Cell <i>Imihigo</i>
	CES and the Cell Development Committee aggregate priorities from the villages, and the Cell Assembly approves the cell <i>Imihigo</i> .	
Village	The village leader documents village-approved <i>Imihigo</i> and signs with the the CES.	Village <i>Imihigo</i>
	The citizens agree at the village assembly through a consultative process of the <i>Inteko z'abaturatione</i> on village <i>Imihigo</i> priorities while other issues are brought up to the cell level.	
	Citizens convene at the village assembly and identify development needs and priorities.	
Household	The household head documents <i>Imihigo</i> targets on cards or in a record book and signs with the Village leader.	Household <i>Imihigo</i>
	Household members agree on priorities.	

Village leaders inform citizens on and mobilize them for individual/household, community and local government *Imihigo* and their roles.

Source: Based on *Imihigo* Guidelines, document reviews and narration from stakeholder interviews.

instrument for policy review and formulation. The process and actors are summarized in Table 3.6.

Initially, local leaders set what they considered their priorities without any national guidance and with limited consultation. Over the last ten years, however, the process has evolved to become more transparent, participatory and accountable. In addition, *Imihigo* have become more focused and aligned with local and national development priorities, a sharp contrast to the initial set of *Imihigo*, which depended on the mayors' own priorities. However, as part of alignment with the national development framework,

Imihigo guidelines were established covering priorities and processes. For instance, in a given year, economic targets constitute 50 percent, social development targets, 30 percent, and governance-related targets, 20 percent. However, these percentages are not the same every year. This encourages a balance of priorities with a focus on increased household income and local economic development consistent with the national development strategies.

Imihigo now start with participatory consultations, with citizens in *Inteko z'abaturatione* (citizens' assemblies) at the village level identifying development challenges and

Girinka was designed to contribute directly to improve the standard of living of the poor.

prioritizing needs. These priorities are categorized into those they can accomplish on their own, which constitute their own *Imihigo*, and those for which they need the intervention of higher authorities. They are then aggregated and re-prioritized at the cell and sector levels all the way up to the district level, where they are approved by the respective councils. The *Imihigo* are then implemented by the respective institutions. Results are assessed across the country and widely shared and discussed.

3.2 The contribution of home-grown solutions to resilient and sustainable human development

3.2.1 Improving standards of living

This Report assesses standard of living based on three key indicators – income and food security (measured by aggregate and food-specific household consumption); asset accumulation; and encouragement of a culture of saving. The contribution of *Girinka*, CBHI and VUP are assessed at the household level, whereas the *Umuganda* and *Imihigo* contribution are examined from the perspective of creating an effective institutional and enabling environment, including infrastructure development for improved standards of living and resilient human development. Before measuring the contribution of each HGS to standard of living indicators, efforts are made to assess the adequacy of the targeting of the program by looking at the extent to which it has reached the bottom 40 per cent of the income group or the three lowest quintiles.

Girinka Program

Targeting

As discussed in the earlier chapter, *Girinka* underwent several reforms aimed at improving the targeting and the effectiveness of the program. These efforts in ensuring that *Girinka* targets the most vulnerable recorded visible success. In the sample of beneficiaries from the three EICV surveys, 7.01 per cent of the bottom 40 per cent of households⁹⁵ received cows through *Girinka*, whereas only

5.07 per cent of non-bottom 40 per cent households received one cow. Overall, 5.76 per cent of the entire EICV 5 sample received cows through *Girinka* (UNDP NHDR background paper, 2018d). Also, data shows that almost 66.2 per cent of *Girinka* beneficiaries are in the three lowest consumption quintiles, notwithstanding the *Girinka* eligibility requirements (e.g. plot size and ability to care for the cow).

Furthermore, a cluster map (see Box 3.1 for an explanation of clustering) was developed to assess the extent of coverage across districts or disparities. As shown in Figure 3.8, high enrolment (red) was initially clustered in the Eastern Province, but in EICV 5, clustering is not evident when the distribution of cows continued to expand across the country. These findings suggest that improvements in targeting were made during 2013/14 and 2016/17 since the same level of clustering of low coverage between 2010/11 and 2013/14 did not persist.

Girinka's contribution to standards of living

Having established that *Girinka* has favoured targeting of the most vulnerable, this section discusses the contribution of the program to the standard of living component of human development.

Although the data available through the EICVs are not designed to assess *Girinka's* program objectives, it was possible to carry out extensive analyses to establish a significant relationship between the program and the standard of living indicators. *Girinka* was designed to contribute directly to improve the standard of living of the poor.⁹⁶ A comparative analysis of findings from household surveys conducted in 2010/11 (EICV 3), 2013/14 (EICV 4) and 2016/17 (EICV5) shows that *Girinka* had a positive impact on the standard of living of the beneficiaries by allowing them to consume their own produce instead of purchased goods to cope with changing climate conditions in the rural areas. This finding is significant because it implies the potential of *Girinka* for further enhancing consumption and income in the face of a declining pace of poverty reduction. As indicated in NISR's EICV 5

BOX 3.1

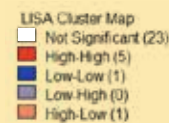
Understanding cluster and significance maps

Univariate (Local Indicator of Spatial Association [LISA])

Standard coverage maps and statistical maps are presented in this Report. For statistical maps, careful interpretation is important because the spatial relationships can easily be misunderstood or overinterpreted.

For the univariate statistic, a variable is compared to its own spatial lag. The spatial lag is essentially an average of the values of the variable for the districts surrounding a given district, based on contiguous neighbouring districts. The first ‘High’ or ‘Low’ is thus the x-axis of the Moran’s I plot, which is the variable, and the second ‘High’ or ‘Low’ is the y-axis, which is its spatial lag. For example, for the univariate local Moran’s I of Girinka enrolment, High-High (dark red) indicates a district of high Girinka enrolment surrounded by districts of

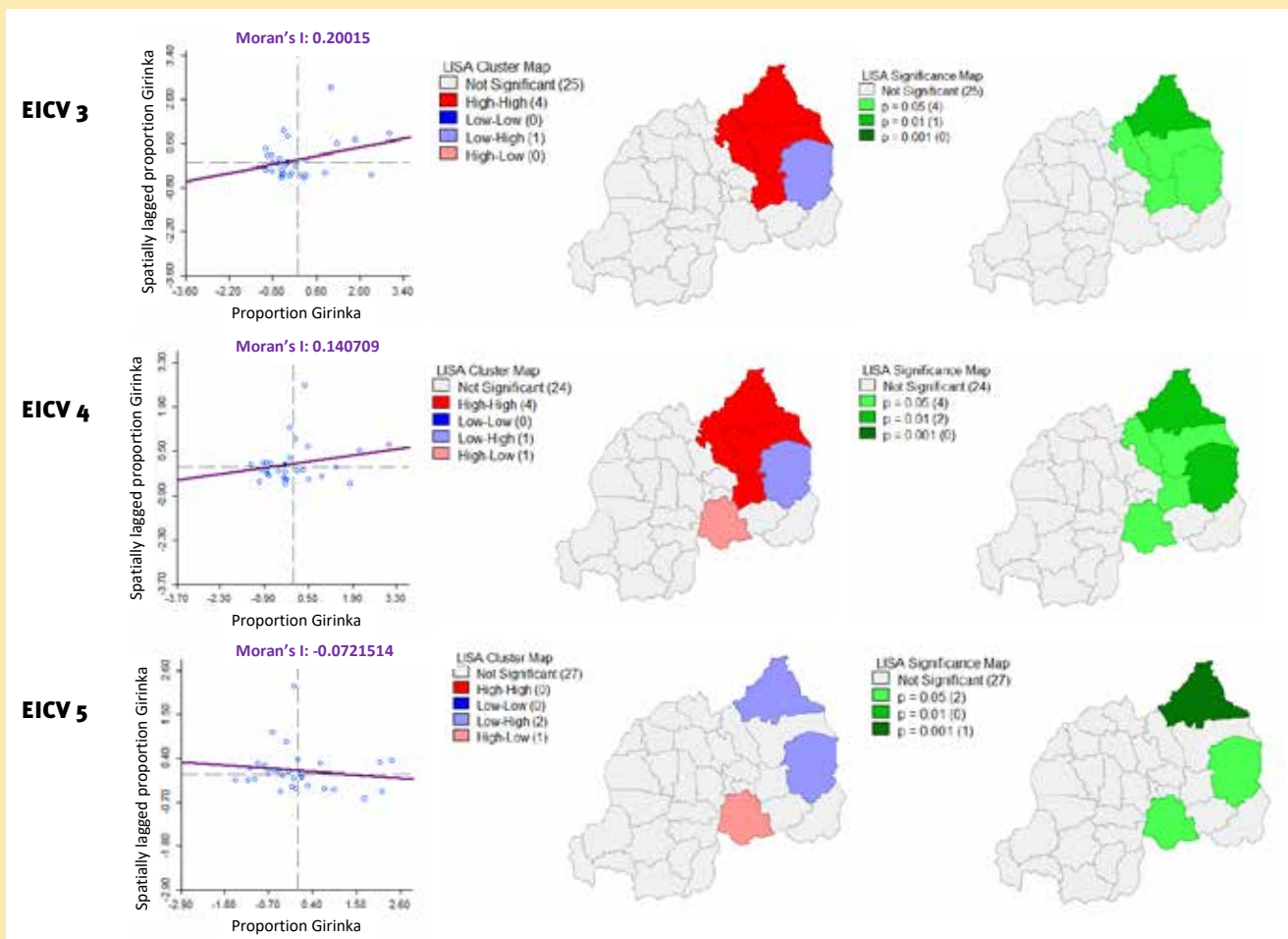
high Girinka enrolment. Low-Low is a district of low Girinka enrolment surrounded by districts of low Girinka enrolment. Low-High is a district of low Girinka enrolment surrounded by districts of high Girinka enrolment. Finally, High-Low is a district of high Girinka enrolment surrounded by districts of low Girinka enrolment. The green significance maps show the level of statistical significance of these clusters based on the statistical significance provided below. Only plots with an overall local univariate Moran’s I statistic (presented above the x-y plot) that are significant at a threshold of 5 per cent were included in this Report.



See Anselin (1988; 2018), Anselin, Syabri, and Smirnov (2002), Anselin, Le Gallo and Jayet (2008), Lee (2001), Lee and Yu (2010) and Fotheringham, Brunsdon and Charlton (2000) for further information on these statistics and their methods.

FIGURE 3.8

Girinka enrolment



Note: Based on a district-level queen contiguity matrix
Source: EICV 3 and 5.

The result for overall households in Rwanda is that consumption of purchased goods increased significantly while consumption of household's own produced food decreased.

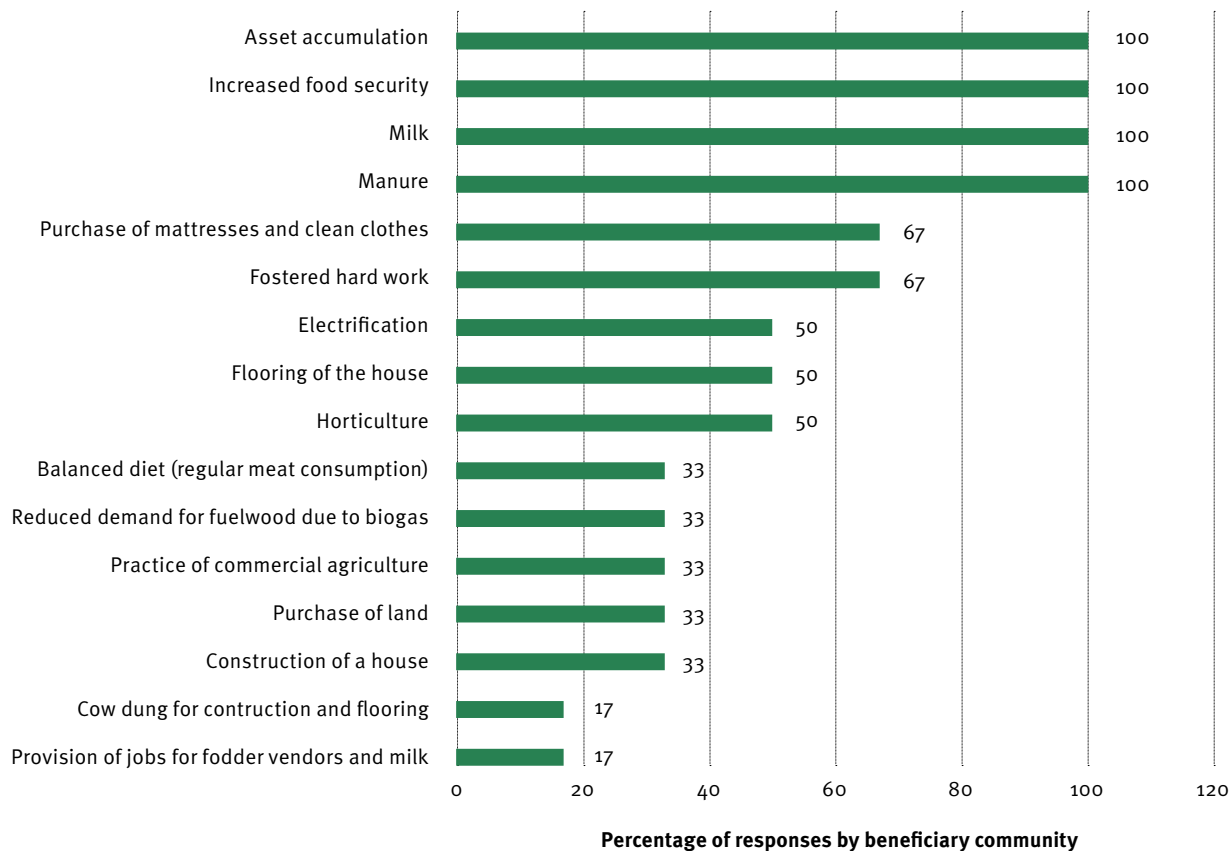
Thematic Report on Poverty,⁹⁷ although the socio-economic conditions improved for all households in Rwanda between the first two survey periods, some stagnation was seen in the period that followed. This is underlined by the statistically insignificant and marginal decline in poverty levels largely due to climate change-related drought.

EICV data analysis shows that the *Girinka* Program is strongly and positively associated with an increase in mean household consumption from own production and a decrease in purchased food. The result is that, overall, households in Rwanda significantly increased their consumption of purchased goods and decreased consumption of their own produced food between EICV 3 and 5. The positive association of the *Girinka* Program with own food consumption is also

confirmed for the bottom 40 per cent of the population. This confirms that the Program's objectives related to increasing consumption of household produce are being met through the program implementation. However, these findings should be interpreted cautiously, because many *Girinka* households had already been engaged in agricultural production and may therefore naturally consume more of their own produced food. The positive household income outcome was further confirmed by RGB's recent report on the *Girinka* Program,⁹⁸ which shows that it contributed to nearly doubling milk production (by 89 per cent), from 372,619 litres in 2010 to 706,030 litres in 2015. The increase in milk production has also helped to reduce malnutrition.

FIGURE 3.9

Most common benefits from the *Girinka* Program, by type of standard of living improvement



Source: Primary data from the field collected by the NHDR consultants team.

Furthermore, a positive association was found between the *Girinka* Program and household possession of durable assets. Specifically, the Program is associated with a 97 per cent increase in the likelihood of a household having a savings account.⁹⁹ This is significant because the program is building household resilience by encouraging households to open saving accounts to set aside savings that could help to cushion the effect of shocks. The same analysis indicates that the *Girinka* Program contributed to a reduction in expenditures on health, which has enabled poor households to save more of their incomes for other household needs that improve their standard of living.

A qualitative analysis of data from the field (nine districts visited by the NHDR consultants team) and recent studies confirmed the finding that the *Girinka* Program contributed to beneficiaries' increased income and improved standard of living.¹⁰⁰ Figure 3.9 shows that multiple benefits have been derived from the Program, contributing to enhanced standards of living of the beneficiaries, largely by boosting consumption from own production as well as significantly enhancing households' ability to accumulate assets. Many beneficiaries, especially those who received cows in earlier phases, have embarked on building new houses or improving existing ones. They start such projects as soon as they are able to obtain a considerable amount of income, usually through selling the cow's offspring.

According to the testimonies from the field, the benefits of the *Girinka* Program are immediate, and beneficiaries need not wait until milk flows as they immediately get manure which is considered a valuable commodity in the small-holder agricultural economy of Rwanda. The soils are so exhausted from over-cultivation and erosion over time that farmers can hardly obtain yields without the use of external fertilizers. Thus, the cows have made significant and almost immediate, positive visible changes in the standard of living of beneficiaries. A woman in an FGD explained:

We used to grow kinini (pyrethrum) because it was the only crop that could grow here in our poor and exhausted soils. That's the major reason why we have had persistent famine and poverty. Now, however, we are growing nutritious crops, and people have food. Every household has got vegetables. We had more than 30 cases of malnutrition a few years ago but now we have one or two cases. Previously, it was worse. Girinka has transformed us.

The *Girinka* Program has created desirable work for men, women and other members of vulnerable households. People who would otherwise be idle and often disillusioned by poverty and lack of livelihood options are reported to be busy taking care of the cows. In the process, the tendency for some rural men to loiter around roadsides and small commercial centres, and engage in illicit alcohol trade was reportedly on the decline where households received cows. The positive outcomes from the *Girinka* Program include reduced domestic and community conflict, and other acts of criminality such as petty theft in rural areas.

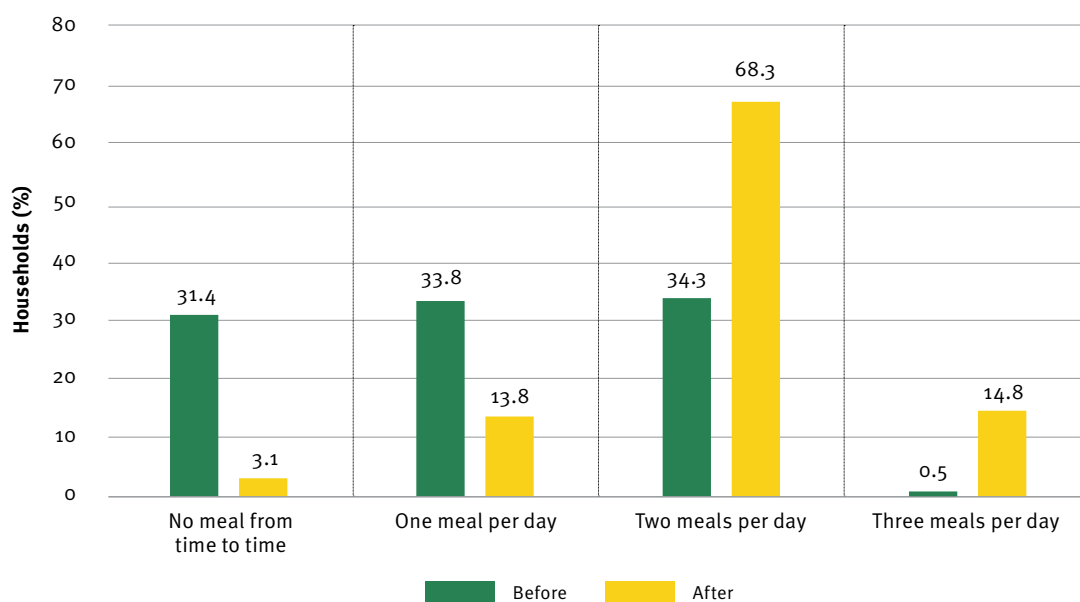
The benefits from the *Girinka* Program shown in Figure 3.9 are consistent with the findings in previous research, for example, Nilsson et al. (2017) and RGB (2014), who found that the standards of living of *Girinka* beneficiaries had increased due to milk, manure, increased food security and asset accumulation.

Increased consumption expenditures from own production among *Girinka* beneficiaries is also reflected in the number of meals that households can afford. Figure 3.10 reveals that the proportion of *Girinka* beneficiary households that can afford two meals doubled to 68.3 per cent, while those that are able to have three meals a day rose from 0.5 per cent to 14.8 per cent. This was attributed to increased food security and incomes among households that benefited from the *Girinka* Program. In addition, the nutritional status of members of beneficiary households increased because they were able to have fairly adequate and balanced food intake including milk and vegetables.

The *Girinka* Program has created desirable work for men, women and other members of vulnerable households.

FIGURE 3.10

Meals by household before and after the *Girinka* Program



Source: RGB (2014).

Private sector actors are being attracted to complementing *Girinka* by the traditional practice known as *Kuragiza* (the practice where beneficiaries rear the cow and return the mother or offspring to the owner later).

In terms of household asset ownership, *Girinka* beneficiaries have increased their capacity to acquire essential household assets (such as radios, mobile phones and television sets) with respect to non-beneficiaries. RGB found that poor households acquired more assets after they had received *Girinka* (Figure 3.11).

These assets help improve the standards of living of beneficiaries because they enhance access to information and facilitate communication and associated service delivery. For instance, ownership of a mobile phone facilitates communication and serves as an instrument for mobilizing savings and enabling financial transactions, including payment for government and e-government services. Household assets also serve as security for loan acquisition in case of need for credit services. The value locally attached to these assets, many of which are basic and have little monetary value, is considerably high, bearing in mind that prior to the *Girinka* transfer, beneficiary households were almost without assets.¹⁰¹

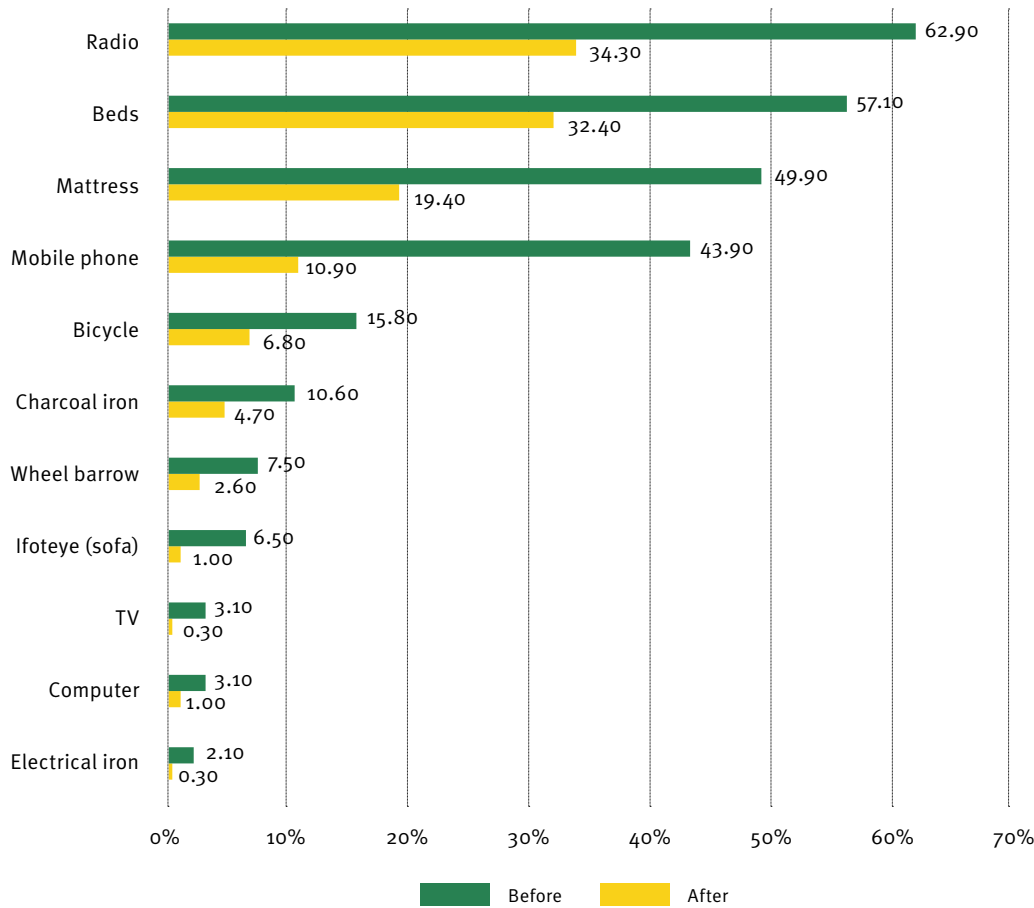
Thus, while there are multiple interventions that have contributed to incomes and

standards of living in Rwanda, *Girinka's* contribution is significant and was reported to be a key enabler.¹⁰² Other recent research also supports these findings. Nilsson et al. (2017)¹⁰³ found that crop production was positively and significantly affected by participation in *Girinka*. His study suggests that livestock are a productive asset on the farm that can be used to extend cropping practices because they increase access to cost-effective manure and soil nutrients.

Private sector actors are also being attracted to complementing *Girinka* by the traditional practice known as *Kuragiza* (the practice where beneficiaries rear the cow and return the mother or offspring to the owner later). Thus, they believe that they can contribute to poverty reduction by giving cows to their poor neighbours in order that the latter can access manure, acquire assets and improve their wellbeing. *Kuragiza* is an ancient Rwandan tradition that was considered a social approach to wealth creation and community cohesion. In Nyamasheke district, for example, a farmer and businessman gave 40 cows to poor residents. The beneficiaries are entitled to the first offspring,

FIGURE 3.11

Household assets for *Girinka* beneficiaries



Source: RGB (2014).

after which they return the mother cow to the owner. The beneficiaries and local leaders believe that it has made a big difference in poverty reduction, since the process enabled the poor, who only dreamed of smaller livestock, to acquire cows.

Also, *Girinka* is supporting milk value chains. In addition, there is potential for emerging small enterprises and livelihoods associated with milk from the *Girinka* Program. Box 3.2 presents an interesting case of a potential transformation through *Girinka*.

Thus, the most immediate and direct contribution of *Girinka* to standards of living among poor households is improved food security and nutrition. This has mainly been achieved due to increased crop production

because availability of manure is essential to improve yields as well as due to the ability of households to diversify the types of crops produced. Second, increased food production enables the household to have increased income, which allows the household to increase its consumption expenditure. Milk production increases household incomes and nutrition because household members are able to consume milk and sell the surplus to the market.

Some studies point out, however, that the *Girinka* Program has yet to achieve its full potential.¹⁰⁴ *Girinka* is an incremental program that has not yet reached three-quarters of the target households.¹⁰⁵ It is important to recognize that time and scale matter, and in the medium term, the level of

Milk production increases household incomes and nutrition because household members are able to consume milk and sell the surplus to the market.

BOX 3.2

The Girinka Program supporting the milk value chains in Nyamasheke

Mahembe sector, Nyamasheke district was one of the poorest areas in Rwanda with more than 70 per cent of the people considered poor in 2006. The only commercial agricultural enterprises were dedicated to coffee crops on the hillsides and valleys, and rice crops on the lowlands, mostly marshlands, and those who engaged consisted in a few land owners. The closest that poor people got to benefiting from these enterprises was through seasonal, low-wage jobs as labourers. Over the last ten years, however, milk production has emerged as an economic activity in the area, and the people who were previously at the bottom of the wealth ladder are now active participants as milk suppliers.

The *Girinka* Program provided high quality breed cows to poor people who, through *kuziturira* (passing on of off-spring to others) and from the local government and other sources, increased the number of their cows. A milk collection centre was established at a commercial centre along Karongi-Rusizi Road and collects about 500 litres a day, more than 70 per cent of which comes from *Girinka* beneficiaries who supply as little as 1–5 litres, with the highest among them supplying around 10 litres. The milk collection centre employs several young people who collect milk from house to house. However, some farmers bring the milk to the collection centre. Although there are some dairy farmers who supply more than 10 litres, *Girinka* beneficiaries are now the

biggest suppliers of milk to the local milk collection centre supplied by around 130 people. Having a ready and reliable market has assured *Girinka* farmers of a competitive price because the big commercial suppliers also negotiate on what is paid to the small *Girinka* suppliers. As a result, several beneficiaries have built houses and moved up the *Ubudehe* category. It is instructive to note that these were people who had no assets and struggled to find food prior to receiving *Girinka*.

There are challenges, however. The *Girinka* milk suppliers are not organized in a cooperative or a network, nor have they received any training or capacity building. Thus, although *Girinka* beneficiaries are now the biggest suppliers of milk in Mahembe, they have little control over any aspect of the value chain.

There is, however, clear potential to transform *Girinka* beneficiaries to become active and influential actors in the milk and dairy value chains if they can be supported and organized to improve both quality and quantity. This would magnify the impact of *Girinka* and further improve the livelihoods of the beneficiaries. The case of Mahembe suggests that *Girinka* could benefit from connecting the beneficiaries to the local available value chains in the dairy industry. Going forward, follow-up actions to train them and build their capacity could achieve an even wider impact.

Source: Field interviews by NHDR research team.

significance could change if the program is scaled and supported to achieve its full potential through capacity building. Nearly all *Girinka* beneficiaries are optimistic that they will join the transformation process once the cows have produced for them at least twice after passing on the first to the next beneficiary. There is a strong sense of hope among all beneficiaries.

The VUP's contribution to standard of living Targeting

Given that the three VUP components analysed in this Report, namely VUP-DS, VUP-PW and VUP-FS, have different objectives and targets, this section will assess their targeting of the most vulnerable as per the policy objective. VUP household and beneficiary targeting is based on the *Ubudehe* categorization. As indicated above, the VUP-DS scheme is aimed to provide regular and reliable income support to extremely poor,

severely labour-constrained households; the VUP-PW scheme primarily aims at providing short-term employment opportunities for extremely poor households with labour capacity; and VUP-FS aims at supporting poor and vulnerable households (*Ubudehe* categories 1 and 2) to develop sustainable income-generating activities. However, the definition of vulnerability provided by the *Ubudehe* does not fully overlap with the categorization of poverty and extreme poverty based on income and multidimensional measures.

Considering the changes in the *Ubudehe* categorization over time, using the VUP panel data, this Report assessed how the program was directed towards the most vulnerable by evaluating the percentage share of the beneficiaries who are in the bottom 40 per cent of the population as well as the bottom three consumption quintiles, both measures of poverty.

In 2016/17, in terms of targeting the most deprived or vulnerable, VUP-DS reached 36.2 per cent of the bottom 40 per cent population group and 57.0 per cent in the bottom three consumption quintiles. In terms of gender, 68.9 per cent of households that received VUP-DS were female-headed. This indicates that VUP-DS has targeted women yet has a relatively limited coverage of the bottom of the pyramid, which is the most vulnerable population group.

For VUP-PW, 63.5 per cent were in the bottom 40 per cent population group and 84.7 per cent in the bottom three consumption quintiles.

However, female-headed households accounted for only 39.6 per cent of VUP-PW beneficiaries, which indicates that greater efforts can be made to enhance their participation.

Moreover, 40.9 per cent of VUP-FS beneficiaries were in the bottom 40 per cent and 64 per cent in the bottom three consumption quintiles. This result was not found to be statistically significant, however, in terms of its difference from the distribution of the overall sample. In addition, the findings indicate that only 28.32 per cent of the beneficiaries

were female-headed households, indicating that greater efforts need to be made to enhance the inclusion of women and the most vulnerable.

Hence, among the three components of the Program, VUP-PW was the most successful in reaching the poor and the most vulnerable, as per the program objectives of VUP, while VUP-DS requires reassessment of its targeting of the poor. In terms of gender balance, while there is variation among the three, there is significant room for improvement for VUP-FS.

By developing cluster maps, efforts were made to observe if there was a notable concentration of VUP coverage (either low or high) in districts in 2016/17. As shown in the above section, VUP components covered large number of sectors, and there are observable differences between districts in terms of coverage. It is evident that clustering for the different VUP components persisted over the three waves of the EICV. There are clusters (Figure 3.12) of low coverage of VUP-DS (dark blue) in the Eastern Province, Gatsibo district; clusters of high coverage of VUP-DS (red) in the Northern Province, and in the Burera and Rusizi districts in the Western Province. There are smaller clusters of low coverage of VUP-PW (blue), but always in the same two provinces, in the districts of Rutsiro and Ruhango. Clusters of high coverage of VUP-PW beneficiaries (red) are shown in the Northern Province. There is a cluster of low coverage of VUP-FS beneficiaries (blue) in the Western Province and part of the Southern Province (Ruhango), and clusters of high coverage (red) of VUP-FS beneficiaries in the Northern Province, in the district of Gicumbi.

Contribution to standard of living

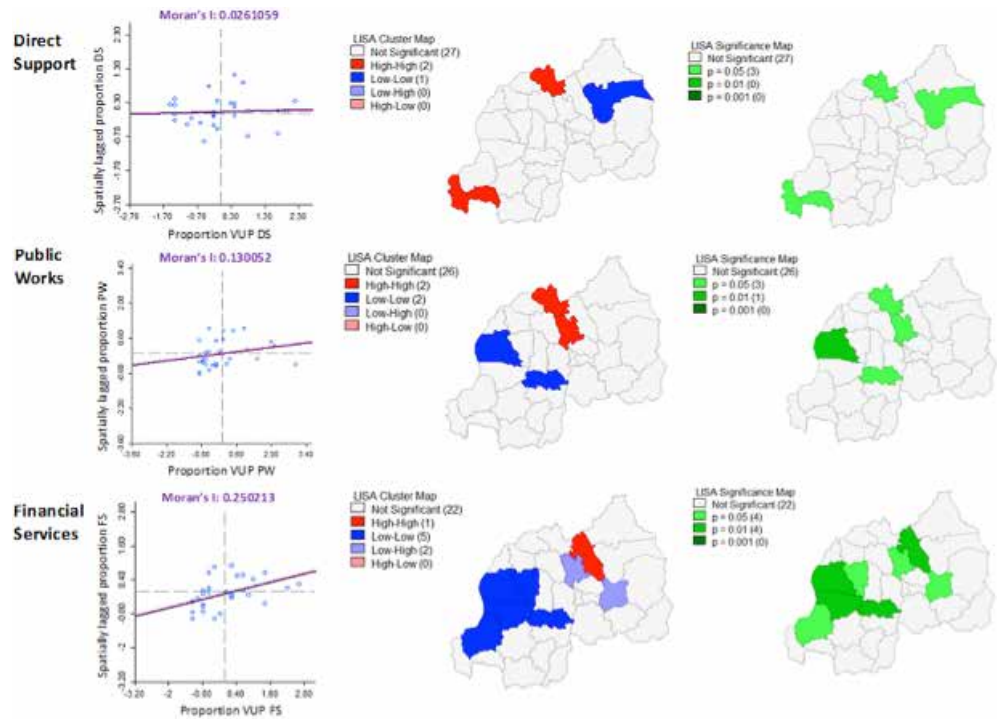
To assess VUPs' contribution to the standard of living component of human development, the household-level analysis linked each of VUP's three components with two key standards of living indicators, namely consumption and asset accumulation.

The results show that VUP-DS was associated with significant increases in household consumption by around 11 per cent, while VUP-FS, was associated with an increase in

Findings indicate that only 28.32 per cent of the beneficiaries were female-headed households, indicating that greater efforts need to be made to enhance the inclusion of women and the most vulnerable.

FIGURE 3.12

Clustering of VUP support, per VUP category and per district



consumption by around 17 per cent. However, VUP-PW was associated with a significant decrease in consumption by 27 per cent. In further linking this with poverty levels, a similar trend emerged. The poverty rate decreased by 10 per cent between 2013/14 and 2016/17 for VUP-DS beneficiaries, while it remained the same for VUP-FS and increased for VUP-PW beneficiaries. The situation is also reflected among the extreme poor and mirrored by the level of median expenditures, as shown in Figures 3.13, 3.14 and 3.15.

The findings suggest that poverty levels of VUP-PW beneficiaries increased over time.

Furthermore, while the VUP scheme aimed to graduate households from poverty, the analysis of the VUP panel data collected through EICV 4 and EICV 5 shows that 43.9 per cent of total households moved down at least one quintile, while 25.3 per cent moved up by at least one quintile. Specifically, for VUP-DS beneficiaries, 46.6 per cent moved down at least one consumption quintile

from EICV 4 to EICV 5, while 22.7 per cent moved up by at least one quintile and 30.7 per cent remained in the same quintile. In addition, 48 per cent of VUP-PW beneficiaries dropped at least one quintile, while 16 per cent moved up by least one quintile and 36 per cent remained in the same quintile. For VUP-FS beneficiaries, 52.8 per cent moved down at least one quintile, while 13.6 per cent moved up by least one quintile and 33.5 per cent remained in the same quintile. Other earlier studies found that over 30 per cent of VUP-PW beneficiaries and 41 per cent of VUP-DS beneficiaries graduated to a higher *Ubudebe* category.¹⁰⁶ The Joint Sector Review report (2018) on social protection affirms that only 17.4 per cent of the households in VUP sectors who were categorized as extremely poor moved out of that category. In sum, examining the limited contribution to the reduction of poverty and the slower graduation from one income level to another by beneficiaries within the three components of the VUP, it is imperative that

The poverty rate decreased by 10 per cent between 2013/14 and 2016/17 for VUP-DS beneficiaries, while it remained the same for VUP-FS and increased for VUP-PW beneficiaries.

FIGURE 3.13

Proportion of poor VUP beneficiaries

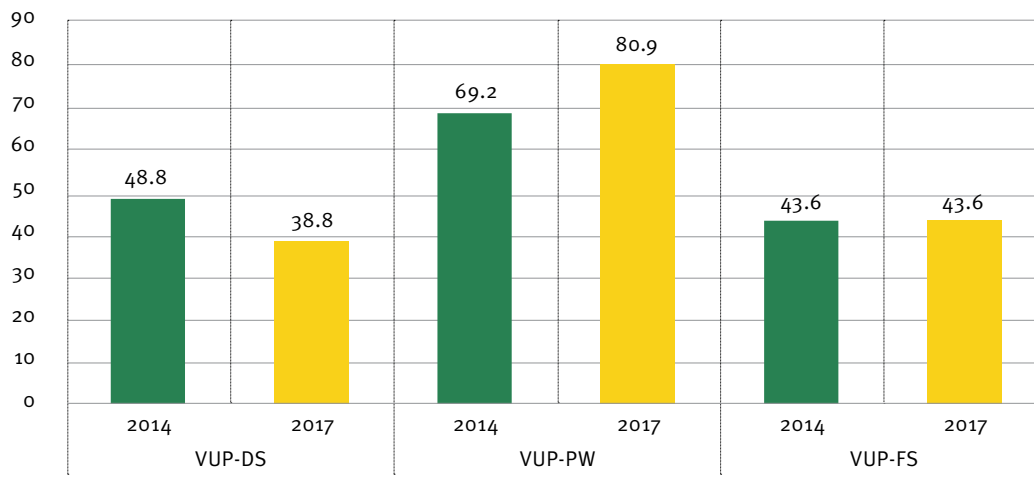


FIGURE 3.14

Proportion of extremely poor VUP beneficiaries

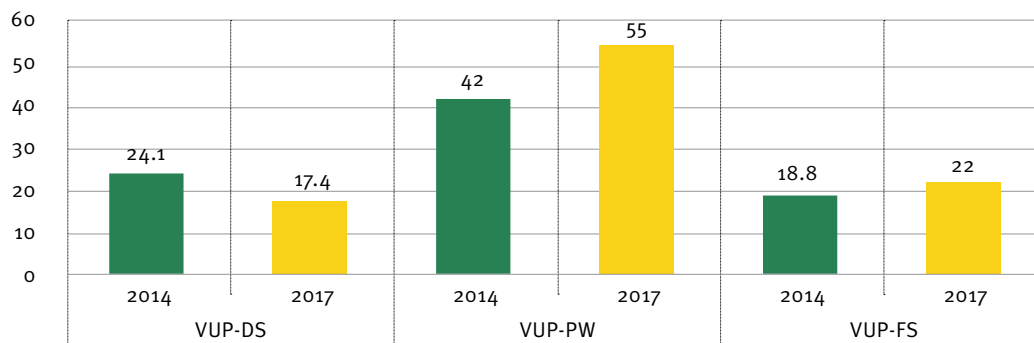
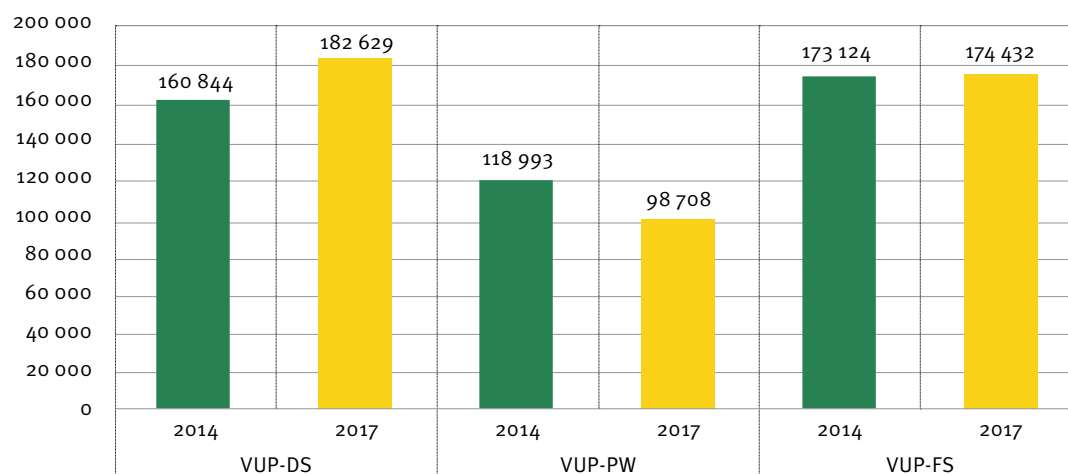


FIGURE 3.15

Median expenditure (Rwf)



Source: NISR, VUP Thematic Report (2018).

The income-generating activities enabled by VUP-FS are stimulated or tend to flourish when the infrastructure and other economic strands are in place.

a comprehensive assessment of the program be carried out to improve its effectiveness.

The qualitative data collected through interviews and FDGs also provide some positive aspects in support of VUP's contribution to standards of living. During field work, the research team observed that the contribution of VUP to the consumption and asset acquisition among beneficiaries may be more clearly demonstrated among the VUP-DS grantees, considering their low consumption and extreme poverty situation prior to the support. Box 3.3 illustrates the significance of VUP-DS grants in transiting the beneficiaries out of extreme poverty and reducing their levels of vulnerability.

The message in Box 3.2 is further confirmed by the observations by the Executive Secretary of Bugeshi Sector, Rubavu district:

In Kabumba cell, Bugeshi sector, six people who lived off begging on roadsides stopped begging. They are now living dignified lives because the DS grant enables them to get food and soap. They also sleep comfortably on mattresses and no longer look emaciated. You can go and visit them. Those who knew them before can testify to you that they are completely transformed people.

The income-generating activities enabled by VUP-FS are stimulated or tend to flourish when the infrastructure and other economic strands are in place. Figure 3.16 shows the different economic activities set up by VUP beneficiaries, which helped increase consumption and acquisition of assets.

BOX 3.3

VUP grants: Transforming the lives of a destitute woman

A 51-year-old blind woman who lives with one child in Rubavu district was nominated. She was nominated by fellow residents to be enrolled for a grant under the VUP-DS scheme. She receives a monthly grant of Rwf12,000 through her *umurenge* Savings and Credit Cooperative Organization (SACCO) account, which she opened upon receiving the grant.

Although the basic education school is not far from her home, her daughter was not attending school before she received the grant. Her mother claims that she didn't have money to buy school materials and uniforms, and they would often go hungry. "How can a hungry child go to school? She asks in apparent justification for why the child could not go to school despite basic education being free.

Since she started receiving the grant, however, she and her child have had enough food and at least two meals a day. In addition, her daughter is in school because she was able to buy her a uniform, shoes and books.

She also bought clean clothes and new cooking utensils. Most importantly, however, she

is happy that she bought a sheep that she hopes will lift her out of poverty. She managed to acquire the assets by savings, which she credits the local government officials who informed her and other beneficiaries, and regularly visits her and provide useful advice. She feels that she is no longer destitute and is fully integrated in society. "Now I have the guts to confidently go where people are congregating because I have clean clothes, and no one will backbite me for not having what to eat," she says confidently.

She summarizes the change brought by the VUP-DS grant as transformational since she now feels like a human being with no worries, despite her blindness. The grant has enabled her to meet her basic needs, send her child to school, and integrate in society. Her esteem has increased, and her perception of life changed from despair to hope in a short time. With a new positive perspective about life, the personal and household conditions for transformation exist.

Among other benefits of VUP-FS, VUP beneficiaries enhanced their engagement within the agriculture sector by commencing small livestock production or engaging in commercial production of crops.

VUP-PW has helped open areas previously considered pockets of extreme poverty and food insecurity to economic growth by establishing roads, bridges, terraces and other public works. In Gashaki sector, Musanze district, local leaders argued that extending electricity to the area was a result of VUP-PW, which opened up motorable roads and catalysed the development of rural commercial centres. As a result of the reliable roads, farmers can sell their produce at reasonable prices, and are now practising commercial farming. They are also able to access markets from where they easily obtain household goods and roofing materials. The Gashaki sector population and local leaders associated increased maize production with the terraces constructed under VUP-PW, which increased food security and household incomes. With roads and bridges constructed under VUP-PW, local farm produce could easily reach the market, thereby expanding agri-business and related economic opportunities. The Executive

Secretary of Muharuro cell, Gashaki sector, Musanze district, explains:

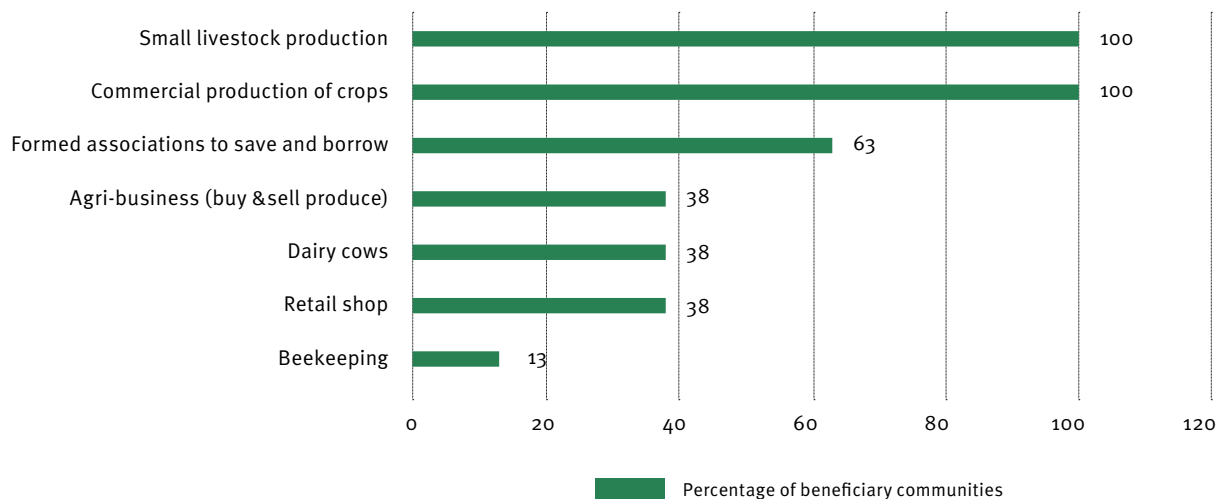
The roads created by VUP-PW have helped bring development in this area as communication is far easier. We now have electricity and water. Centres of commerce are sprouting at every corner, and people can access essential goods more easily. Leaders now find it easy to come to our area where they never used to do so before. People can sell their produce and fetch a good income. They used to look really dirty but now bathe and look clean. They are no longer hungry, and mobilizing them to participate in Government programs is easier.

In terms of asset accumulation, the EICV data show that the percentages of VUP-DS and VUP-PW beneficiaries who acquired several types of durable assets, including a savings account, increased between the 2013/14 and 2016/17 periods, with the exception of livestock, mobile phones and radios. In contrast, for the VUP-FS, all durable assets considered have shown a significant increase over time with the exception of radios (Table 3.7). As expected, during 2014–2017, there was an increase in the ownership of savings accounts among

VUP-PW has helped open areas previously considered pockets of extreme poverty and food insecurity to economic growth by establishing roads, bridges, terraces and other public works.

FIGURE 3.16

Most common types of income-generating activities established by VUP-FS beneficiaries



Source: Primary data collected (NHDR 2018).

During 2014–2017, there was an increase in the ownership of savings accounts among beneficiaries of all three components of VUP.

beneficiaries of all three components of VUP. However, a statistically positive association between the components and asset accumulation could only be established for VUP-FS, and not VUP-DS and VUP-PW.¹⁰⁷

While VUP has registered some encouraging results, an in-depth analysis on program design and efficiency gains could be beneficial. As previously discussed and corroborated by the findings of the VUP Thematic Report (2018), VUP-PW reaches the poorest population subset of the three VUP schemes examined. This indicates that it may have a far-reaching impact in improving the standards of living of the poor and the most vulnerable. However, the program beneficiaries have achieved relatively limited gains in terms of improved standards of living. VUP could therefore benefit greatly from enhancing its targeting of the most in need, for example, those who are income and multidimensionally poor, which account for 18.4 per cent of the population in 2016/17 (Table 3.8) and scaling up the program flexibly based on vulnerability assessments. This also shows the need to increase the scale of the support if Rwanda is to ‘leave no one behind’ by 2030.

Although the program has evolved throughout the years to tackle challenges and shortcomings, it has yet to fully address

these limitations. For instance, the Forward Looking Joint Sector Review 2016/17,^{108,109} had identified the limited number of working days offered through VUP-PW as one of the reasons for which the component was not delivering against its objectives. As mentioned above, to tackle the first problem regarding number of working days, the Government introduced the Expanded Public Works, or ePW,¹¹⁰ as a part of the PW component of VUP. This new approach targets households that are moderately labour-constrained (also defined as “with caring responsibilities”), offering flexible road maintenance projects and community/home-based child-care projects. ePW were introduced after the EICV 5 data were collected, and therefore their effect is likely not to be captured in the data in the next survey. Hence, the impacts of the new ePW and of the increase in the provided hours of work are still to be assessed, given the short time that the new program has been implemented and the lack of data for this period.

Furthermore, VUP-PW program activities should be better linked to agriculture and climate change. The project activities eligible for cPW can cover environmental management, climate change adaptation, feeder and access roads construction, urban drainage and marshland reclamation. The Government recognizes the need to strongly

TABLE 3.7

Percentage of VUP beneficiaries, by asset accumulation levels

Asset	2014			2017		
	Direct Support (DS)	Public Works (PW)	Financial Support (FS)	DS	PW	FS
Concrete floor in the home	4.8	4.4	14.7	8.4	5.3	20.1
Corrugated iron roof	50.8	39.4	41.5	58.9	54.1	59.9
Livestock/poultry	73.6	77.4	84.6	65.1	73.5	89.6
A radio	33.9	54.3	68.8	22.7	29.5	56.3
A mobile phone	32	48.8	72.3	22.6	49.1	78.5
Savings account	94.1	87.5	82.5	96.7	95.1	94

Source: NISR, VUP Thematic Report (2018).

link social protection programs and policy, of which VUP is part, with response to climate change adaptation and environment interventions (MINALOC, 2011).¹¹¹

A potential measure to improve the effectiveness of the current VUP set-up could emerge from the analysis of similar programs in neighbouring countries. Ethiopia offers a good example (Box 3.4), the Productive Safety Net Programme, which is the second largest social protection program in Africa and covers between 8 and 9 million people. The key feature of the program is the strong link with agriculture and rural development.

Community-based health insurance

Targeting

Expanded coverage of health insurance through CBHI has contributed to many Rwandans accessing healthcare when ill. For example, access to healthcare when ill increased from 56 per cent in 2014 to 57 per cent in 2017.¹¹² The improvement in access to care was accompanied by a reduction in the time needed to reach a health centre over the same period, from 57 to 51 minutes.

For this Report, further analysis was carried out to assess CBHI's coverage from the perspective of the 'leave no one behind' principle. When looking at the coverage of CBHI within the bottom 40 per cent of population using the EICV survey data, it can be observed that the coverage for this group marginally decreased from 69.8 per cent in 2010/11 to 68.8 per cent in 2016/17. This finding provides an important signal to policymakers. While overall CBHI coverage may be increasing, albeit recently at a slower pace, it may not necessarily be increasing for all subgroups of the population; hence, it is essential to ensure inclusion of the most vulnerable and retain those who are most in need.

Further, in order to confirm the encouraging trend in coverage in CBHI, cluster maps were developed covering the 2010/11 and 2016/17 periods (Figure 3.17). While on average there is a marginal increase in coverage of CBHI across the country, there were variations at the district level. While there

TABLE 3.8

Overlap between monetary and multidimensional poverty in Rwanda

EICV 5	Monetary poor			
	No	Yes	Total	
Multidimensional Poverty Index (MPI) poor	No	51	20.14	71.14
	Yes	10.47	18.4	28.86
	Total	61.46	38.54	100

Source: NISR, EICV 5 MPI Report.

has been increase in some districts in CBHI coverage, in others, there was a decline. In terms of clustering of low coverage, as can be seen from the map, low CBHI enrolment (blue) is clustered in the districts within the Southern Province in 2010/11 and improved in 2013/14. In addition, there was increased clustering of high enrolment (red) in CBHI in 2014 around Bugesera, which was sustained in 2016/17. However, clustering of low enrolment slightly increased again from 2013/14 to 2016/17, with low relative clustering in districts within Southern Province returning. This shows the importance of promoting the benefits of health insurance across districts to retain the population already covered while recruiting new households, for example, in the districts of Karongi and Rusizi.

Expanded coverage of health insurance through CBHI has contributed to many Rwandans accessing healthcare when ill.

BOX 3.4

Protecting the most vulnerable: The Productive Safety Net Program in Ethiopia

The Productive Safety Net Program (PSNP) was designed as an innovative social protection program to fit the context of Ethiopia, which is a largely agrarian society that suffers from widespread chronic food insecurity and severe natural resource degradation. Consolidating all its existing programs, the Ethiopian Government developed the PSNP in 2005 with support from development partners. The program put in place robust systems that respond to chronic vulnerability by shifting focus from annual emergency appeals to a planned approach to food insecurity and predictable drought risk management. These systems have been the backbone of the response to the current drought. The program has covered over 8 million chronically food-insecure households, and it is the largest social protection program in Africa with a total budget of approximately US\$3.6 billion from 11 development partners and the Government. The PSNP's innovativeness lies in the link between agricultural development and social protection, and the use of multiple interventions to achieve multiple objectives.

It has aimed to achieve three interlinked objectives – protection, prevention, and promotion of vulnerable and chronically food-insecure households (the three Ps), and clearly identified program interventions targeted to the objectives. Ideally, the first objective protects households against hunger through consumption smoothing. By ensuring predictability—a criteria of food security using food gap in a year—it minimizes uncertainty and reduces human catastrophe, including hunger and famine. The second objective, prevention, is intended to protect a household's assets during crises. Whenever shocks occur, households tend to destock their productive assets through distress sales and loan repayments, which can eventually lead them into a poverty trap. The prevention objective, therefore, provides safety nets to prevent a poverty trap. The third objective, promotion, aims to enhance the productive capacity of households who have been trapped in poverty. Under this objective, households and/or communities caught in a poverty trap due to indebtedness, marginality and asset crises are given the opportunity to build community resources, increase productivity, generate income and build assets. The program provides payments to able-bodied members of the community for participation in labour-intensive public works. It provides direct payment support for six months of the year to labour-poor, elderly or otherwise incapacitated households. Public works focus on integrated community-based watershed development, covering activities such as soil and water conservation measures, rangeland management (in pastoral areas), and

the development of community assets such as roads, water infrastructure, school and healthcare centres.

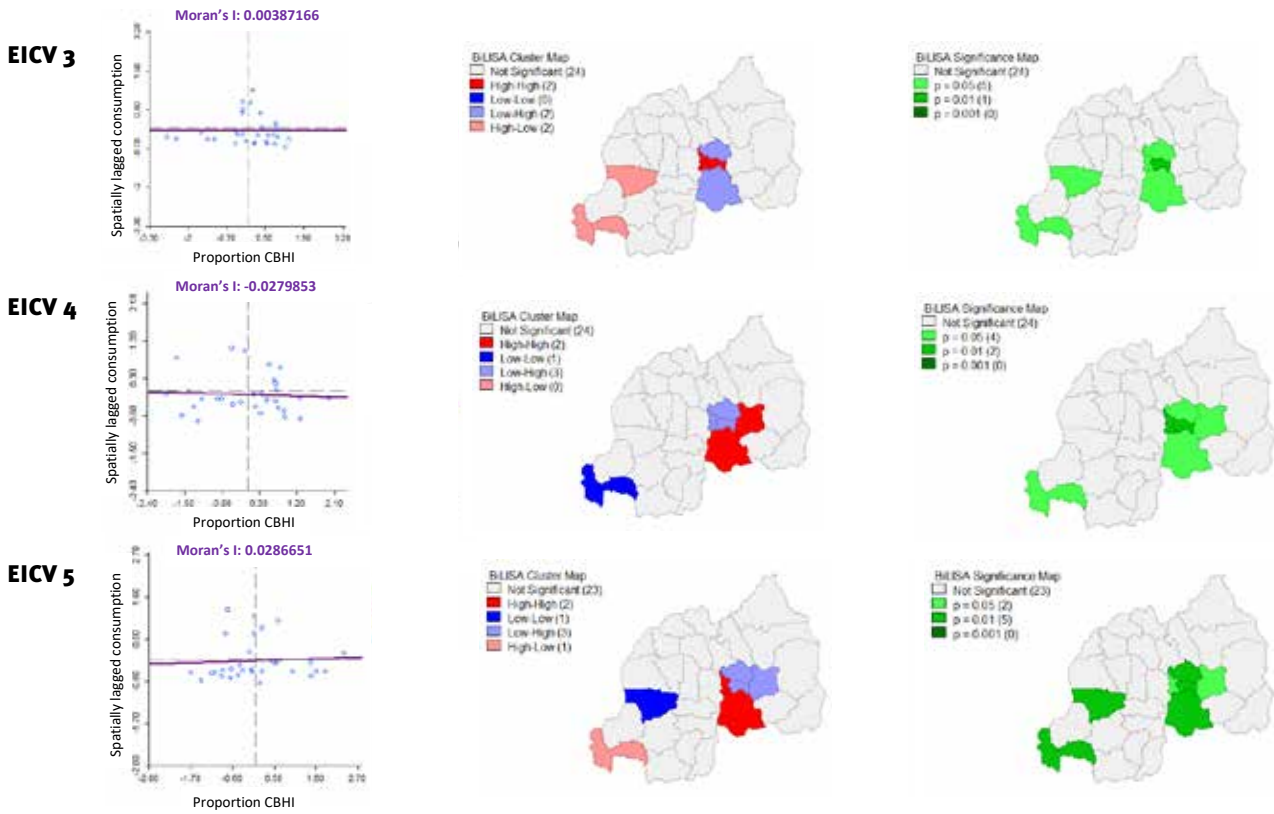
A review of the empirical evidence suggests that the PSNP has helped to smooth consumption, reduce food insecurity, and minimize productive disincentives, although its impact on productivity and household asset building is limited. The PSNP demonstrates the importance of integrating environment and climate change mitigation and adaptation when formulating and implementing social protection programs. By incorporating environmental and climate change considerations, Ethiopia's PSNP has increased resilience, improved food security and reduced deforestation through land restoration and natural resources management, and is now known as one of the largest climate change adaptation programs in Africa. The public works assets created through the PSNP are addressing the root causes of poverty and vulnerability by restoring watersheds and building much needed basic infrastructure and roads. Under the PSNP, 39,000 km of roads, 500 health posts and 4,300 school rooms have been built. The PSNP contributed towards an increase of land productivity by three to four times by reducing soil erosion and sediment losses by 50 per cent. Improved food security has helped prevent the sale of assets in periods of acute need and it also contributes to keeping children in school. The food gap, when households cannot meet their food needs, dropped from 3.6 to 2.3 months. According to the 2015 Public Works Impact Assessment, the total CO₂ sequestered during phase 3 of the program, in ten of the watersheds sampled, amounted to over 1 million tonnes CO₂, or an annual average of 200,688 t CO₂e.

Valuable lessons learned have emerged from the PSNP: (i) graduation tends to be a function of many factors, including production disincentives, the ability or inability to create capacity, and the effectiveness of the implementers for graduating clients; (ii) a sustainable multitasked social protection program requires an effective institutional architecture that can mobilize expertise, assign clear responsibilities to stakeholders, and design an equitable and efficient targeting system; (iii) the program should be sustained through a longer-term perspective; and (iv) there is a need to put in place cross-cutting oversight to integrate land restoration, climate policy, food security and disaster risk management into a coherent policy framework.

Source: Based on IFPRI, 2018.

FIGURE 3.17

Bivariate local Moran's I of CBHI enrolment



Contribution to standards of living

The analysis below further investigates how the coverage of insurance through CBHI has contributed to improving the standards of living in Rwanda, basing it on the data from the EICVs.

While CBHI is largely associated with living a long and healthy life, it also has a catalytical impact on standard of living by protecting the family from incurring catastrophic expenditure that could now be spent to improve standards of living. This is largely transmitted through the effect of CBHI easing the burden of taking care of the poorest people previously shouldered by families and, to some extent, the community, often at the cost of household assets and time to work or participate in recreational activities. Prior to CBHI, whenever poor people suffered illness, the community had to mobilize funds to contribute to their treatment and even funeral expenses because they often did not

have assets. This burden has been eased by providing the poorest people with CBHI, which guarantees free healthcare for them. Thus, CBHI has also helped households save time dedicated to or caring for the sick and enabled them to save resources for enhancing their consumption and savings, which could translate into improved standard of living.

Also, CBHI has helped significantly increase labour productivity because it protects people from prolonged illness, thereby enabling working-age members of households to remain healthy and productive. Community members used to spend a great deal of working time transporting the sick to health centres and/or burying the dead, thereby reducing their ability to engage in productive work that could improve income/consumption and standard of living. The situation would sometimes result in a food security crisis, especially during periods of malaria outbreaks, which frequently occurred during

CBHI has helped significantly increase labour productivity because it protects people from prolonged illness, thereby enabling working-age members of households to remain healthy and productive.

CBHI has helped cushion the assets of the poor and non-poor in Rwanda by significantly reducing the risk of catastrophic spending to meet medical and emergency costs.

rainy seasons when farmers should have been planting or weeding.

The household data analysis using the EICVs shows that CBHI is indeed positively associated with increased mean consumption by around 17 per cent (Annex 4). Furthermore, the analysis indicated that CBHI enrolment is positively and strongly associated with having a savings account (Annex 4), which again confirms the above hypothesis that households are not only able to increase their consumption due to protecting the household from catastrophic health expenditures arising from illness, but they also increase their ability to engage in saving activities. Furthermore, this analysis shows that CBHI card holding is associated with an increased likelihood of having a savings account by 99 per cent. Furthermore, the findings show that households with CBHI are more likely to own durable assets. The positive association of CBHI and improved standards of living was equally true for the bottom 40 per cent of the population, further confirming its impact despite the relative lower coverage for this group.

Rwandan citizens emphasize that without CBHI, many would have lost assets and plunged into poverty because they would not

have been able to avoid catastrophic health expenditures. Box 3.5 summarizes the views of a beneficiary from Gicumbi district.

The findings from this analysis are confirmed by other studies. For instance, Collins et al. (2016) observed that the proportion of households spending over 10 per cent of household consumption on health declined from 11 per cent in 2000 to 2 per cent in 2010 due to increased CBHI enrolment. As Figure 3.18 shows, out-of-pocket health expenditure as a proportion of household income has reduced for all wealth quintiles.

Figure 3.19 suggests that the greatest reduction occurred among CBHI households in the lowest quintile. The less the poor spend on health (without compromising their healthcare needs), the more income they can spend on other essential needs for better standards of living.

CBHI has helped cushion the assets of the poor and non-poor in Rwanda by significantly reducing the risk of catastrophic spending to meet medical and emergency costs.¹¹³ Prior to CBHI, any household with a prolonged illness and those with pregnancy-related risks were highly vulnerable to poverty. The benefits were summarized by a middle-aged man in Gasabo district:

Whenever a household had a pregnant woman and birth complications arose requiring surgery or referral to a bigger hospital, it was almost a given that the household had to sell land. And this would often be after selling off other assets like livestock. Now, imagine how many households in Rwanda would be able to sell land and remain with adequate land to feed the household? However, because of CBHI, people only pay only Rwf100, and in extreme situations, it wouldn't exceed Rwf400. Yet, those without CBHI must pay more than Rwf300,000 in case of a complication. Hasn't CBHI helped us get out of poverty even if we haven't yet reached where we desire to be?

Thus, the Government's strategy of stratifying the population and targeting free CBHI subscription for the poorest quintile is effective in increasing their standard of living.

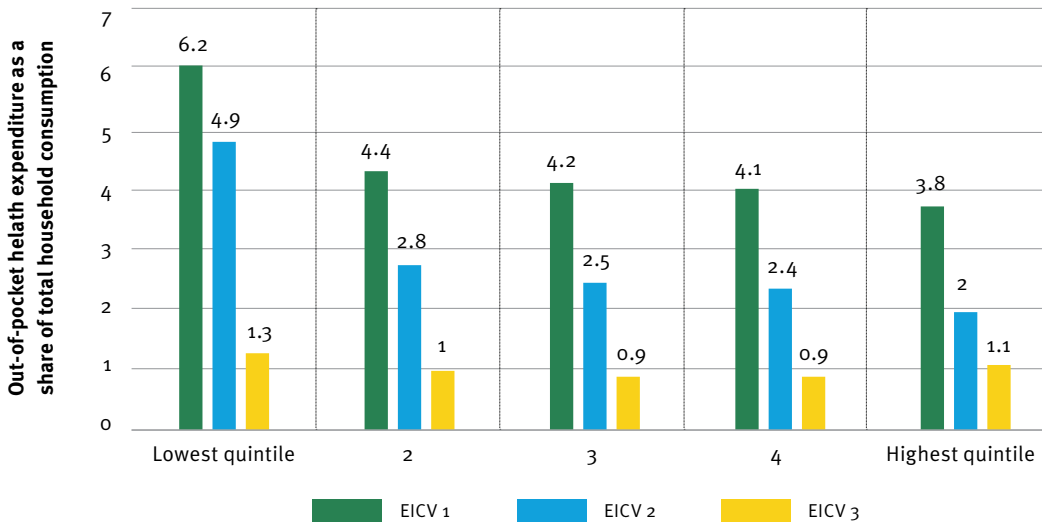
BOX 3.5

CBHI and labour productivity – insight from a beneficiary in Rubaya

During malaria outbreaks, we would practically not work. We would lose a lot of time, yet such epidemics strike in a busy season of planting and weeding (September–November). All able-bodied men would spend their days carrying the sick to health centres. Occasionally, we would spend our time burying the dead because of too many deaths, usually related to malaria. Villages frequently suffered from severe famine because people would be on the road carrying the sick or in funerals. Women would be looking after the sick because it was common to find the elderly and children sick and dying at every corner. Now, however, anyone who gets a fever runs to a health centre or to a community health worker and is promptly treated, as long as you have your CBHI subscription card. Health workers these days also know what to do, unlike previously when they were few and not well trained. The health facility is also near. People quickly recovered and resume work. CBHI is an important tool for productivity. Here, if you have no energy to work, poverty will remain in your house. Men and women are able to handle multiple activities because they are healthy, and CBHI has contributed a lot towards improved living standards. – A citizen from Rubaya.

FIGURE 3.18

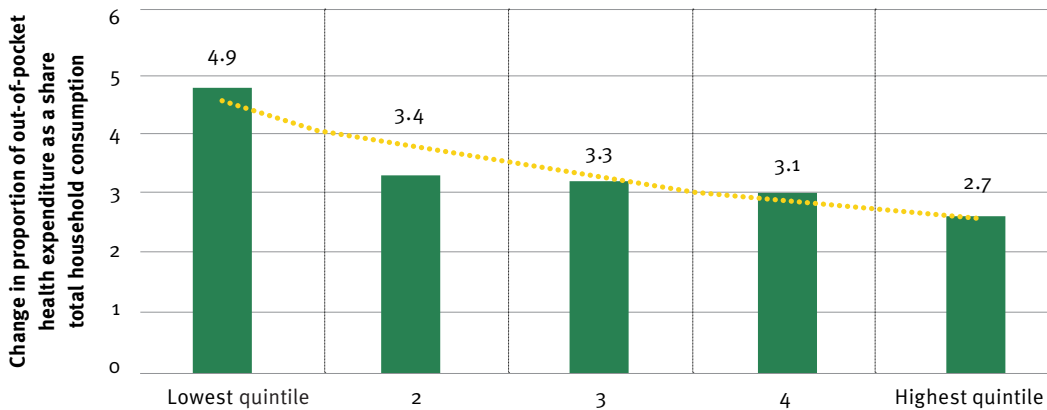
Out-of-pocket health expenditures as a share of household income



Source: Kalisa et al., 2015; EICV 4.

FIGURE 3.19

Out-of-pocket health expenditure as a share of household income, by wealth quintile



Source: Kalisa et al., 2015; EICV 4.

Umuganda contribution to standard of living

Umuganda is a program implemented throughout the nation. It has made a significant contribution to standards of living, particularly for the poor. This ranges from public infrastructure (roads, bridges, health centres, schools, backyard kitchen gardens, and in some areas, water supply systems) to private assets and amenities such as housing, sanitation facilities, tree planting and terracing

agricultural lands at risk of erosion. In addition to the private facilities that most often are established for the poor, public infrastructure is most likely to benefit the poor the most, enabling them to access public services.

According to the RGB’s Impact Assessment report on *Umuganda*, the largest economic contribution of *Umuganda* is in the form of infrastructure, mainly roads (93.3 per cent) followed by bridges (56.5 per cent),

soil stabilization (52 per cent), afforestation (22.1 per cent) and improvement in agricultural productivity (9.7 per cent).¹¹⁴ From the perspective of food security and nutrition, the most direct contribution of *Umuganda* to the nutrition status of poor and vulnerable people is reflected in the construction of backyard kitchen gardens (Table 3.9).

By helping nearly 143,000 poor households to establish backyard kitchen gardens (one garden per household), *Umuganda* has contributed to improving the nutritional status of the poor and vulnerable, which has a positive effect on their health and productivity. It is particularly beneficial to children and mothers who are more susceptible to malnutrition-related ailments. As explained by an interviewee:

In Gisagara district, Umuganda was credited by local authorities and citizens, for enabling multiplication of cassava planting materials, which were then distributed to farmers to cost-effectively scale up the production of cassava. This restored economic activity based on cassava value chains (including repositioning the district as a source of raw materials for Kinazi Cassava Plant located in neighbouring Ruhango district).

Umuganda has, through the same process, also expanded commercial banana growing for industrial purposes. This is contributing

to the expansion and diversification of the local economy, which has led to the creation of jobs for the local people, both on and off-farm. *Umuganda* has been used by local authorities in Gisagara as an instrument for mobilizing citizens for mass production and for fostering public-private partnerships in the cassava and banana value chains. The poor (including the landless) and the local economy have benefited through industrial-scale production and value addition. As a result, to a large extent, Gisagara district, which had persistently been among the poorest and most food-insecure areas, is increasingly becoming a source of food for the country.

Umuganda has helped the poor to productively and gainfully use their labour, which is the most important resource for most of them. In Nyamasheke, homeless people who had been paying rent in form of labour received houses built by the community through *Umuganda*. Their earnings are now used to take care of their families instead of paying for shelter. Housing for the homeless poor is critical to breaking the cycle of poverty, because it is a basic need that affects household stability, health and productivity.

Umuganda is contributing to lightening the housing burden of the poor by constructing houses. More than 3,400 houses were constructed during 2017/18 alone, as shown in Table 3.10.

By helping nearly 143,000 poor households to establish backyard kitchen gardens, *Umuganda* has contributed to improving the nutritional status of the poor and vulnerable.

TABLE 3.9

Number of kitchen gardens constructed by *Umuganda* for poor and vulnerable people, 2017

Province	No. of kitchen gardens constructed
Kigali City	136
Southern	186,900
Northern	2,976
Eastern	1,582
Western	1,378
Rwanda	142,972

Source: MINALOC, *Umuganda* Annual Report 2017/18 (2018).

TABLE 3.10

Number of houses constructed for vulnerable people through *Umuganda*, by province

Province	Number of houses constructed
Kigali City	70
Southern	1,302
Northern	490
Eastern	755
Western	792
National total	3,409

Source: MINALOC, *Umuganda* Annual Report 2017/18 (2018).

As shown in Table 3.10, *Umuganda* provided houses for more than 3,400 households in one year, providing shelter for more than 10,000 vulnerable people.

From a wider perspective, *Umuganda* has contributed to food security, housing and communication infrastructure, and local economic development. It has influenced a local development model that encourages participatory and inclusive development, where the poorest and previously excluded appreciate their self-worth and use their potential for self- and community development.

In fostering local economic transformation, the inter-linkages between HGSs are critical. For example, banana and cassava production and processing in Gisagara have thrived because of inter-linkages between VUP (e.g. for improved roads and improved land productivity through terracing), the *Girinka* Program (for increased land productivity) and *Umuganda* (for helping leverage community efforts). *Umuganda* ensured that everyone was part of the process. Thus, inter-linkages between HGSs helped to enhance human development, albeit unintentionally.

Umuganda has contributed to food security, housing and communication infrastructure, and local economic development.

BOX 3.6

Joint impact of HGSs in overcoming poverty and trauma

A 53-year-old lady from the village of Kinini was widowed when she was only 28 years old after her husband was killed in 1994. She survived with her three children. She now lives alone since the children are now adults and have gone away. She has never returned to her former home in Nyamasheke district, where the family's cows were stolen and the home vandalized by Interahamwe youth.

From a fairly wealthy household with livestock and crops, she and her three children came to live in the village of Kinini, where she thought she could live more peacefully. Through *Umuganda*, residents organized and built a house for her. Through another *Umuganda*, the community also built her a kitchen. Her three children were educated under the Genocide Survivors Assistance Fund (FARG) and she was also a beneficiary from the *Girinka* Program from FARG, which helped her pay for school materials and other needs for the last born who has now completed university, as the scholarship only covered fees.

The cow she received has produced twice. She sold the first offspring to meet her children's school needs. She passed on the second offspring to another person within the community, with whom she has established a strong bond and regularly visits. She describes her living conditions as follows: "*Ubu ndarya neza kubera iy'inka. Impa ifumbire ngahinga nkeza. Ubu natangiye umushinga w'amatunda*" ("Now, I eat very well because of this cow. It gives me manure and I get good yields. I have started the project of growing passion fruits"). She confidently talks about the future. Indeed, she uses part of her compound to grow different types of vegetables, and her small banana plantation is intercropped with fruit trees.

In addition to food and income, she obtains 3 litres of milk daily from her cow, which she uses for her personal consumption and shares with neighbours, giving priority to those with young children. She doesn't sell milk because it's really not worth it. She explains that sharing milk with others has helped malnourished children to survive and has created a sense of security around her. She has CBHI covered by FARG but says that she rarely falls sick. She praises her cow for being a good companion. She says being too busy looking after it has kept her from idleness around bars and other social places. "You can't just sleep. Every time I come back, it welcomes me with a loud mooooo, and I respond by hugging it. It has filled the gap and I'm not lonely at all."

The widow forgave her husband's killers and has been preaching reconciliation. She explains that it was by getting closer to others and receiving support that she overcame her anger and frustration. Her reconciliation efforts are appreciated by the community and local leaders praise her as an example of successful reconciliation and poverty reduction efforts. The house built by *Umuganda*, however, is old.

Genocide survivors face unique vulnerabilities given that many still nurse psycho-social problems associated with the horror they witnessed and the families they lost. Hence, mere provision of economic assets, skills or houses may not be adequate to restore or increase their standard of living. However, a combination of interventions that bring them closer to others and give them an opportunity to actively participate in nation building empowers them to live dignified, productive and healthy lives, as her example demonstrates.

Children from poor households are no longer discriminated against as they would be if their living conditions at home had not improved.

Thus, the human development outcomes associated with HGSs are optimized if inter-linkages are explored and if synergies between different HGSs are harnessed. This is particularly appropriate for many poor Rwandans who face complex and multiple deprivations, as the case study in Box 3.6 shows.

While at the household and community level, there is a greater recognition of the economic contribution, documentation of the overall contribution to national economy is improving. The increasing community participation in *Umuganda* is a welcome development, which is positively contributing to the national budget, albeit at low levels, around 1 per cent of budget in 2015/16, for around Rwf19.263 billion.¹¹⁵

3.2.2 Increasing access to knowledge

Rwanda has generally improved its human capital development, as shown in chapter 2. Due to its centrality of the access to knowledge dimension, progress in all indicators related to access to knowledge has been registered and positively affects performance in all other human development dimensions. In this section, a brief assessment of HGSs' contribution to increased learning and educational attainment outcomes is provided using available information. The contribution of the *Girinka* Program, CBHI, VUP and *Umuganda* to this important dimension of human development is discussed below.

The *Girinka* Program

While the *Girinka* Program is not specifically designed to improve educational attainment, improved income and nutrition indirectly contribute to households' ability to provide for education. A two-level analysis was carried out to assess the contribution of the *Girinka* Program to access to knowledge, namely, its impact on the highest school grade achieved for household members over 25 years of age and education learning outcome indicators, such as the ability to read and write. The findings from the analysis of EICV data are encouraging. They show that the *Girinka* Program contributed to improved learning outcomes as demonstrated

by the positive and strong correlation between enrolling in the *Girinka* Program and the ability to read and write (Annex 4). The *Girinka* Program has expanded opportunities for many poor households to invest in the education of their children and is associated with an increase in literacy by 47 per cent. Furthermore, the Program's impact is very strong because it is associated with improved household educational attainment in the bottom 40 per cent population group. It should be noted that *Girinka* beneficiary households are poor and have the lowest education level.

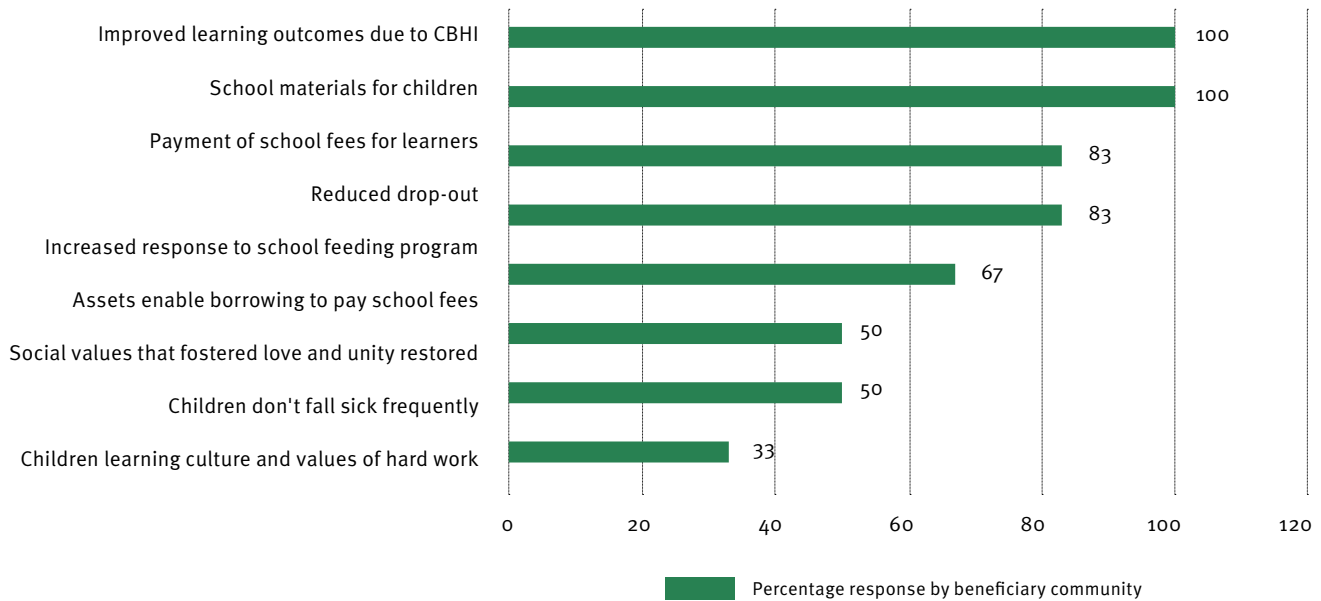
Figure 3.20 outlines the principal areas in which beneficiary communities¹¹⁶ confirmed that the *Girinka* Program had contributed to the dimension of learning and access to knowledge. This implies, *inter alia*, that the *Girinka* Program increased households' ability to enrol in CBHI, afford school materials for their children, pay school-related fees and other expenses, and improve the learning environment for their children, thereby contributing to increased performance (in terms of the transition from one level to another and completion rates).

The *Girinka* Program's contribution to improved learning outcomes for the poor is also reflected in reduced material deprivation as well as in increased dignity. Children from poor households are no longer discriminated against as they would be otherwise if their living conditions at home had not improved. They are now encouraged and highly motivated to attend and stay in school, largely because they are better nourished (due to access to milk, and adequate food), are clean (have shoes, clean clothes and regularly bathe with soap), and perhaps most importantly, they can receive school materials, including uniforms and books.

Parents have been especially empowered by the *Girinka* Program, both in terms of income and awareness, to invest in the basic education of their children. The Program is also now used as an incentive or instrument for promoting excellence in service delivery. More than 200 of the best teachers in public schools were considered for the *Girinka* Program.¹¹⁷

FIGURE 3.20

Most common contributions of the *Girinka* Program to access to knowledge as identified by community members



Source: Focus group discussions with selected beneficiary communities (May–June 2018).

It should be noted that although the Government introduced free basic education (under the 12YBE), households must still take care of essential needs. The most important household expenditure items are school materials (exercise books, pens, pencils, etc.), shoes and uniforms, as well as a contribution to school feeding fees. Indeed, among the common reasons frequently cited for which children are likely to skip or drop out of school in Rwanda are the failure or inability of households to provide basic school needs. This inability is generally blamed on poverty. Parents also pay substantial fees for secondary education (outside the 12YBE), associating them with higher quality of learning. Schools under 12YBE also require students to make some monetary contribution in different forms. It is within this context that it is important to recognize the contribution of the *Girinka* Program to education and to enhance this link further by ensuring holistic support to *Girinka* beneficiaries so that they may continue investing in their children's education.

VUP's contribution to access to knowledge

VUP is designed to contribute towards equitable development including by improving the living conditions at home. It is aimed at creating a supportive environment for learning, raising the dignity of poor children, and changing how other children perceive them because of their new image; children from VUP beneficiary households are cleaner, healthier and more confident than before, and have access to school materials. While the analysis carried out for this Report highlights some positive associations between VUP the access to education indicator, the results vary according to the three VUP components.

VUP-PW and VUP-FS demonstrated strong positive relationships with household educational achievement, as well as in increases in the likelihood of literacy, while for the VUP-DS, it is only possible to confirm a positive association with literacy outcomes. The Report could not find statistically significant differentiated impact or association between VUP's three

VUP is designed to contribute towards equitable development including by improving the living conditions at home.

components and access to knowledge indicators for the bottom 40 per cent as well as *female-headed* households.

To understand the contribution of VUP towards access to knowledge, especially for the poor, it is important to understand the many barriers that vulnerable children face, especially those in extreme poverty conditions. As Figure 3.21 shows, these barriers range from hygiene and discrimination to social stigma. From the policy perspective, they are so complex that they cannot be addressed by merely providing free education.

VUP has created opportunities for beneficiaries to learn about and appreciate government programs. They have become motivated and have developed capacity to take children to school. VUP has been an effective incentive for mobilizing the poor, especially those who receive DS grants and those who participate in VUP-PW activities, to send children to and keep them in school. The 12YBE is designed as a partnership between the Government, parents and the community, where the Government provides teachers and other materials, and

communities participate in establishing and maintaining school infrastructure as well as mobilizing children and ensuring that

they all attend school. CBHI allows parents to provide their children with nutritional food and school materials, and ensures that the children have access to healthcare and hygiene services. This has helped increase school enrolment since the VUP beneficiaries are informed and linked to a network of beneficiary families.

Umuganda contribution to increased access to knowledge

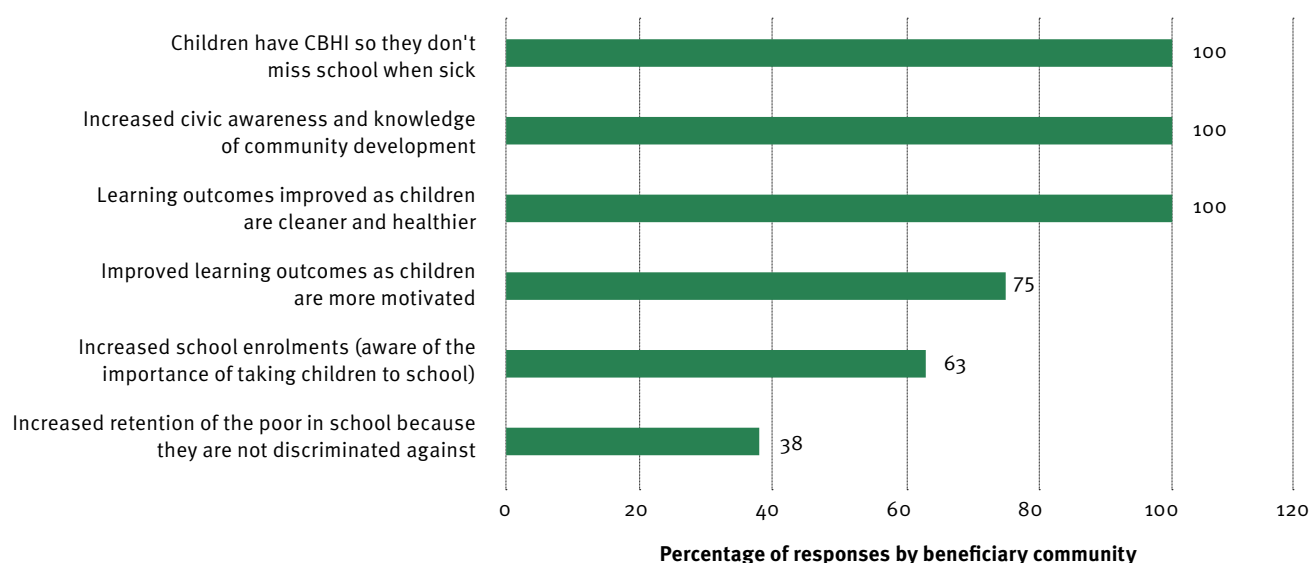
Umuganda has contributed to increased access to knowledge mainly through infrastructure quality improvement and citizens' mobilization and awareness raising. Table 3.11 shows the number of schools established through *Umuganda* during 2017/18. It also facilitated school feeding, enabling children to learn attentively and improve their learning outcomes.

It can be observed that, by creating a social and community development framework in which everyone is mobilized, and no one is left behind, a sense of community responsibility and accountability is being established to meet universal education targets. Hence, children in all households will be sent to school even if parents do not appreciate the value of education. *Umuganda* connects community and strategic national-level

Umuganda has contributed to increased access to knowledge mainly through infrastructure quality improvement and citizens' mobilization and awareness raising.

FIGURE 3.21

Most common community perceptions of VUP's contribution to increased access to knowledge



Source: Field data, May – June 2018.

development aspirations, including education. The education infrastructure established by the community through *Umuganda* reduces the distance that children travel and creates a learning environment that helps to increase retention and completion rates. Importantly, having contributed to building the facility, the parents are more likely to have their kids enrol and benefit from it.

Box 3.7 summarizes one of the many case studies in which communities have addressed the challenges in access to knowledge.

Outcomes related to access to knowledge are particularly important for Rwanda considering its strategic focus on transforming into a knowledge-based economy. HGSs contribution to knowledge outcomes would improve significantly if their targeting addressed other factors or issues. Other socio-economic factors that constitute important determinants of access to knowledge in Rwanda and that need further attention in HGSs design include the following:

1. **Household size:** Larger household size is associated with lower or reduced spending on education. This is expected since the larger the household, the greater the demands in terms of feeding and other basic necessities such as clothing. It becomes even more difficult with more dependents (notably young and school children, the elderly or the disabled). As

TABLE 3.11

Number of schools constructed by Umuganda, by province, 2017

Province	Number of schools constructed
Kigali City	36
Southern	398
Northern	319
Eastern	27
Western	531
Total for Rwanda	1 311

Source: MINALOC, *Umuganda Annual Report 2017/18* (2018).

the household struggles to provide food and other basic needs, it finds it difficult to provide even very basic school needs such as school materials.

2. **Gender:** Male-headed households are likely to spend more on education than female-headed ones. This is largely due to the difference in earning capacity and the fact that female-headed households in Rwanda are more likely to be poor than male-headed households.¹¹⁸ The gender difference is, however, less significant in urban areas.

Outcomes related to access to knowledge are particularly important for Rwanda considering its strategic focus on transforming into a knowledge-based economy.

BOX 3.7

Umuganda: Children returning to and staying in school

The people of Kabungo village in Nyagatare district lost their school to strong winds and stormy rains in the late 1980s. Since then, children have had to walk for three hours to Cyondo Primary School. Moreover, they have had to cross a swamp, which is often flooded and presents significant barriers during rainy seasons. As a result, many children dropped out. Also, most children had to start primary school at a later stage than the average or recommended age of six .

The community, through Umuganda, built a three-classroom block, three bridges and a road. As a result, incidences of school dropout significantly reduced, and transition to secondary school increased. The bridges and road also

significantly reduced the distance as well as time that students needed to reach Cyondo Secondary School, hence a win-win situation.

Relying on their own efforts, the community members mobilized children to return to school and hope to construct more classrooms to accommodate more children and enable them to continue and complete the primary cycle without having to walk long distances again. Through Umuganda, the community of Kabungo and Rwamiko have solved the problem that they had struggled with for 30 years.

Rwanda registered the best performances in the human development outcomes related to longer, healthier lives for all.

3. **Location:** Urban households spend more on education than their rural counterparts. This is largely due to their income difference as well as exposure to the benefits of education. This may shape their views on the importance of prioritizing education more than those of their rural counterparts, also because urban people are more likely to contribute to their children's schooling than their rural counterparts, even in public schools. The poor in urban areas are also more likely to spend on pre-primary and early childhood education than the poor in rural areas due to exposure to such possibilities and availability of facilities, which are fewer and less accessible to most households in rural areas.
4. **Age of household head:** Middle-aged people have higher demands for schooling and therefore spend more on education than younger and elderly household heads. This is partly due to wealth accumulation, which tends to increase with age, but also life cycles whereby elderly household heads may have no schooling children. At an advanced age, the elderly are less likely to spend on education because they have no schooling children, or their earning capacity has declined.
5. **Level of education:** Educated household heads spend more on education than their less educated counterparts. In rural areas, however, household heads who are graduates from technical and vocational education and training (TVET) spent more on education.

The main message here is that HGSs have contributed significantly to access to knowledge. However, households that are headed by less educated female or elderly people, those located in rural areas or who have a large family face exceptional challenges that tend to undermine their ability to optimize human development outcomes associated with the knowledge dimension. There is therefore a need to institute additional policy support measures targeting these categories.

3.2.3 Living long and healthy lives

Rwanda registered the best performances in the human development outcomes related to longer and healthier lives for all, as discussed in chapters 1 and 2. The outcomes related to expanding access to quality health services reflect Rwanda's most outstanding success in the last decade. The progress made in these outcomes has been underpinned by increased investments in health infrastructure and human resources, as well as the prevention or reduction of morbidity through public health, sanitation and nutrition. Integrating gender equality and targeting the most vulnerable people have ensured that the outcomes are shared across social groups, wealth quintiles and geographical zones. Mainly CBHI as well as the *Girinka* Program have contributed significantly towards progress in health outcomes at the household level; *Imibigo* and *Umuganda* have contributed to increasing health service delivery at the systemic level. In this Report, while VUP could have indirectly contributed to long and healthy lives, the literature as well as data analysis did not yield significant evidence; hence, only CBHI, the *Girinka* Program and *Umuganda* are discussed in depth. This does not mean, however, that VUP made no contribution to living long and healthy lives. For instance, the Government used VUP schemes to raise awareness and secure a positive response of the population to embrace modern birth control measures and reduce the size of families, as well as participate in and respond to government programs. These programs include vaccinations, family planning uptake and savings mobilization through *umurenge* Savings and Credit Cooperative Organization (SACCO), among others, that could assist in reducing vulnerabilities to health hazards. VUP-PW has contributed for the development of health infrastructure. Below is the presentation of the key contributions.

CBHI's contribution to living a long and healthy life

CBHI coverage has expanded over time. This increase in CBHI coverage is even more pronounced when compared to the early 2000s. In recent years, the scheme has been

expanding at a slower pace, which indicates the need to intensify efforts to gain lost ground in access to health insurance by mobilizing local communities.

The CBHI became a real success in Rwanda, not only through its expansion of coverage, but also through the accompanied increase in the utilization of healthcare. Two important factors come into play. First, CBHI has addressed the financial barrier to healthcare access. Second, CBHI financing has enabled the Government to improve the quality of healthcare provided at public facilities.¹¹⁹

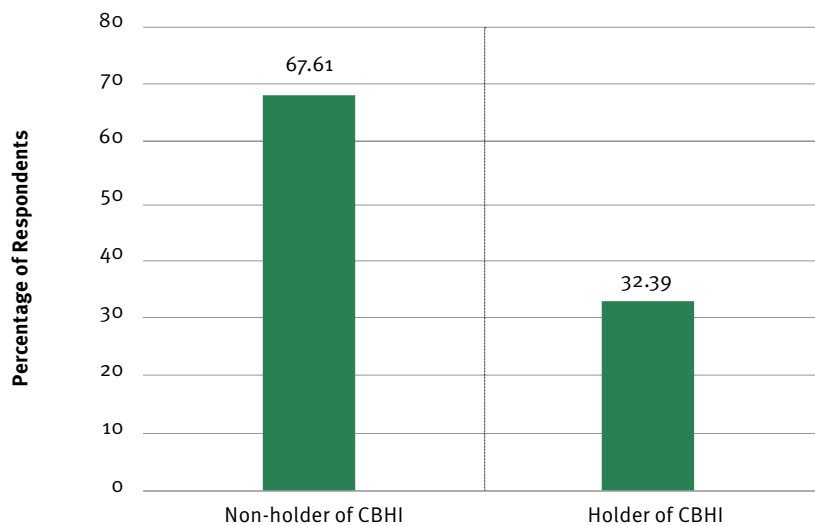
Data further show that the CBHI holders are half as likely to have suffered a health issue as non-CBHI holders; 67.6 per cent of non-CBHI holders reported having suffered a health issue, against only 32.9 per cent of CBHI holders (Figure 3.22). This indicates that CBHI may be contributing to lower incidences of morbidity, and therefore the ability to live healthier and more productive lives.

A quantitative analysis of the EICV survey data (Annex 4) further reveals that CBHI contributed to increased household's access to health services based on reported medical consultations and to a significantly reduced mean household expenditure for health services.¹²⁰ The analysis further suggested that CBHI is positively associated with increased access to health services through medical consultation. Strikingly, CBHI increases the likelihood of attending or seeking a medical consultation by approximately 194 per cent.¹²¹ There is evidence, therefore, that the increase in the use of health services, with a corresponding decrease in household health expenditure, are strong indications that CBHI is positively contributing to long and healthy lives. This positive association is also statistically valid for *female-headed* households, as well as for the bottom 40 per cent of the population.¹²²

Field testimonies further reaffirmed this finding since most at-risk groups that have benefited most from CBHI are the elderly, young children and women of child-bearing age. Qualitative data from the nine districts visited through FGDs imply that there was a significant reduction in the number of people dying, especially the elderly and children,

FIGURE 3.22

Incidences of illness among CBHI beneficiaries and non-beneficiaries



Source: Access to Finance Rwanda/AFR, 2016.

and that this was largely attributed to CBHI (Figure 3.23). The data also show that CBHI reduced morbidity and child and maternal mortality in these districts.

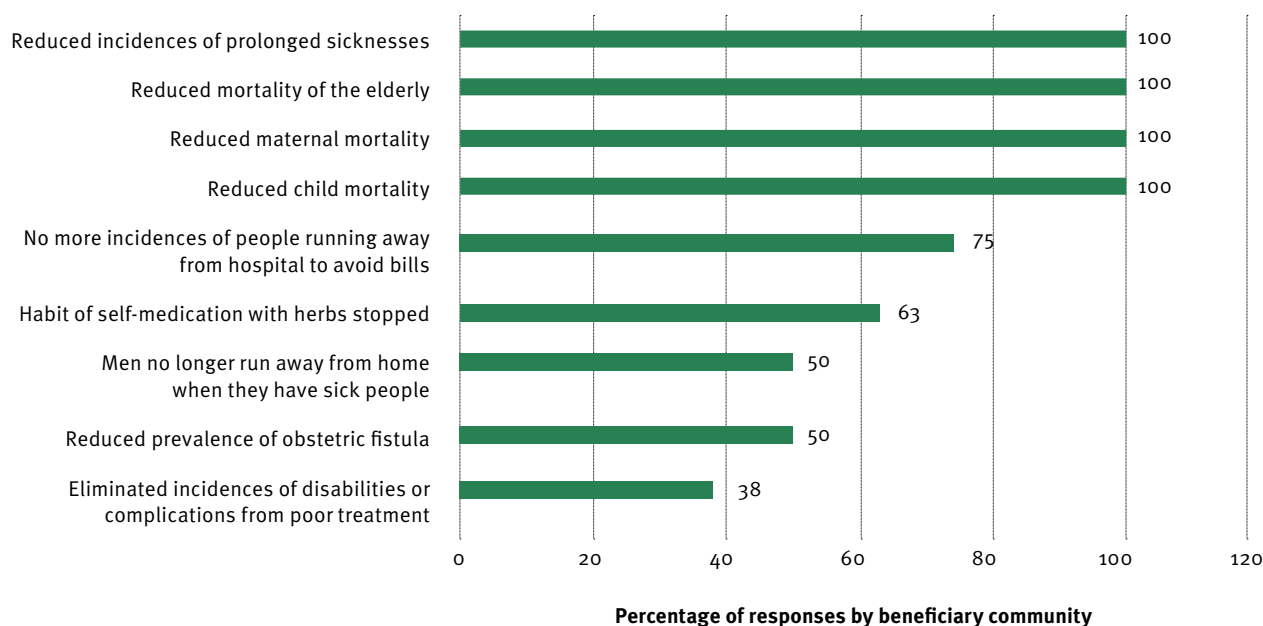
In Rwamagana district, the local authorities cited a significant reduction in incidences of fistula among women, together with reduced maternal and child mortality due to a range of ailments. They noted that CBHI had helped eliminate fistula, which was reportedly common in the past when home deliveries were the norm. This also significantly reduced the incidences of other pregnancy and child birth-related complications. Antenatal attendance is high, and almost 100 per cent of deliveries take place at health centres. Demand for family planning services (using modern contraceptives) increased, thereby improving the sexual and reproductive health of women.

Increased deliveries at health centres have also helped improve civil registration, planning as well as follow-up of children and mothers for other purposes. *“Now we have full records of each birth in our area including the particulars of the child and parents,”* stated a civil registration officer of Rubaya Sector, Gicumbi district.

Increased deliveries at health centres have helped improve civil registration, planning as well as follow-up of children and mothers for other purposes.

FIGURE 3.23

Most common community-identified contribution of CBHI to living long and healthy lives



Source: Field data (May–June 2018).

CBHI has helped change the thinking and perceptions of citizens from dependency on the State for health support, to planning for their health and investing beyond health insurance.

CBHI has also reached the informal sector, which is inaccessible through other health insurance schemes.¹²³ In addition to working in the informal sector, most beneficiaries are poor and vulnerable. This can be considered a successful policy innovation, especially recalling that CBHI in post-genocide Rwanda was first piloted after a sharp drop in demand for health services when the Government introduced user fees in the public health system. Per capital healthcare utilization increased from 0.3 in 2001 to 1.25 in 2015.¹²⁴

Furthermore, the CBHI scheme has served as an effective instrument to streamline the referral process of the health system. It enables each level of healthcare to carry out its assigned tasks (e.g. the health centres handle basic health services) while referral hospitals have space and time to focus on more complicated cases.

In addition to these successes, CBHI has helped change the thinking and perceptions of citizens from dependency on the State for health support, to planning for their health (by insuring against health risks) and investing beyond health insurance. Many people

now take their health and the related costs seriously and recognize the importance of CBHI in cushioning risks. Even those who are reluctant to subscribe or irregularly do so believe that it there could be dire consequences in not paying CBHI. In rural Gasabo district, some households tend to subscribe when they have a pregnant member of the household, and some young men have argued to be allowed to pay only during their wife's pregnancy. This is contrary to the concept of risk, because the policyholder is sure to need healthcare during the period of subscription. While this thinking is inappropriate and contradicts the principle of mutual insurance, it underscores a high level of understanding among Rwandans that CBHI is important. In addition, CBHI has helped change attitudes and practices of local people, resulting in increased safe motherhood practices, nutrition, and environmental and public health. For the elderly, who have a higher susceptibility to illness, it has enhanced their survival. An elderly citizen in Rubavu sector, Rubavu district, best explains:

I'm a regular visitor at the health centre, and medicine has literally become beans [a major staple food in Rwanda] for me. If I didn't have CBHI, I would be long dead, and my household would have been wiped out.

Thus, the main impacts of CBHI can be summarized as follows:

- **Reduced mortality**, especially of pregnant mothers, infants and young children, and the elderly. In Muhanga, Gicumbi, Rubavu, Nyamasheke and Gisagara, citizens, security officials and local leaders pointed out that they no longer had incidences of people dying at home or on their way to health centres. They also stated that their civil registration records indicated significant reductions in the number of deaths.
- **Reduced incidences of prolonged morbidity**. People go to health facilities as soon as they feel unwell or detect an ailment. With early treatment by qualified health workers, sick people recover quickly and return to work. Incidences of prolonged illness or hospitalization, often resulting in fatal complications, have declined because people have CBHI.

Some challenges remain, however: for example, the failure, delay or perceived reluctance of health centres to authorize referral of patients to district or referral hospitals is often a source of discontent of many ordinary citizens with the CBHI scheme. This is confirmed by the interviews carried out in all the nine districts visited by the NHDR consultants team.

The other issue that CBHI beneficiaries raised is common unavailability of drugs at the health centres. A 58-year-old man in Rubavu sector, Rubavu district, explains.

We are always told there are no drugs. They just give us paracetamol tablets and give us prescriptions to go to the pharmacy. The mitweli card does not work at the private pharmacy, and yet we have no money. It's worse for us, the elderly, who are frequent visitors at the health centre. But with Rwandaise d'Assurance Maladie (RAMA), we are treated differently at the pharmacies. Those who are

insured are just given drugs. We are told that these pharmacies have a working relationship with RAMA. The question is why can't such a partnership be extended to CBHI? Aren't they both under the same government institution? Why discriminate us? Everything will be fine if they can fix the drug supply problem.

This concern was reiterated in all nine districts visited by the NHDR team. Government authorities are aware of the challenges and are working towards addressing them, which is common in resource-deprived settings. Senior national and district leaders attribute the challenges in the drug supply chain to budget constraints rather than institutional failures in the drug supply chain. They indicated that they were working to address it through relevant policy instruments.

The *Girinka* Program's contribution to long and healthy lives

The *Girinka* Program has contributed towards longer, healthier and productive lives of poor Rwandans in multiple but related ways. First, it has increased household food security and raised the incomes of beneficiaries (extensively discussed under standards of living). This increased the households' ability to enrol in CBHI and access healthcare, as well as acquire basic household assets. Analysis of household data shows that the *Girinka* Program is associated with decreased per capita health expenditures in addition to a 17 per cent increase in the likelihood that program beneficiaries would seek a medical consultation. This is a significant finding because it may link with other important impacts of the *Girinka* Program, which are related to empowerment: that is, *Girinka* beneficiaries feel more empowered to access health services, even for minor health visits. Furthermore, these beneficiaries are often eligible for CBHI coverage, which will contribute to improving their health.¹²⁵

Figure 3.24 further confirms that 99.2 per cent of all households surveyed acquired health insurance upon joining the *Girinka* Program. Among them, 94.3 per cent had CBHI after joining the *Girinka* Program, compared to 68.1 per cent before joining.

People go to health facilities as soon as they feel unwell or detect an ailment. Because of early treatment by qualified health workers, sick people recover quickly and return to work.

Market-based incentives for promoting behavioural change, including hygiene, tend to be more effective than campaigns based merely on health outcomes such as those run by the Government.

Caution should be exercised, however, because increased health coverage may not entirely be attributed to the *Girinka* Program alone, considering the multiple interventions that *Girinka* beneficiaries may have participated in or benefited from during the same period. Several *Girinka* beneficiaries have also benefited from VUP and *Umuganda*, and all of them may have been influenced by the rigorous mobilization by the districts aiming to reach a 100 per cent CBHI enrolment under *Imihigo*. Over the last ten years, achieving near-universal CBHI enrolment has been a recurring *Imihigo* target in all 30 districts, and more recently, all households have ensured that subscription would be part of their *Imihigo*.

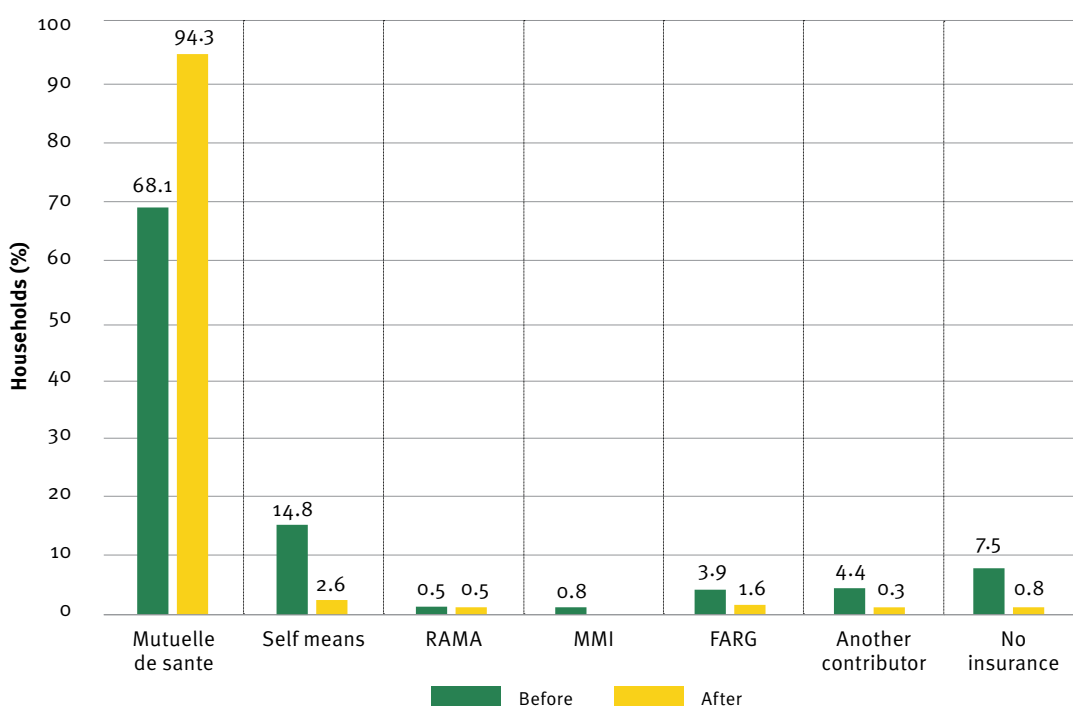
An indirect contribution of the *Girinka* Program to improved health is due to the promotion of personal hygiene. Private sector engagement has been effective in promoting hygiene in areas where *Girinka* beneficiaries supply milk to local milk distribution centres.

The milk distribution centres are imposing stringent hygiene standards that compel milk producers (including *Girinka* beneficiaries) to improve personal and household hygiene. Market-based incentives for promoting behavioural change, including hygiene, tend to be more effective than campaigns based merely on health outcomes such as those run by the Government. People may not immediately visualize the benefits of improving their hygiene, thus, promoting market standards and linking them with the social and economic benefits could be effective in promoting hygiene and improving health outcomes (notably reduced morbidity) among *Girinka* beneficiaries.

A combination of access to milk and behavioural practices such as improved personal and household hygiene has a more powerful effect on malnutrition than merely emphasizing access to nutritious food alone, as stated by some health workers at Kinini Health Post in Nyamasheke district:

FIGURE 3.24

Health insurance coverage before and after joining the *Girinka* Program



Source: RGB (2014).

While we used to record an average of 30 cases of malnourished children a month during the 2010–2013 period, we now receive one to two cases, and no more than three cases in extreme situations.

The health workers attributed the change to a combination of factors, including access to milk, vegetables from backyard kitchen gardens, and especially, awareness raising and training on nutrition and hygiene for children and mothers. The health post runs nutrition and hygiene training and mentorship programs for all mothers attending antenatal consultations and vaccination visits.

The *Girinka* Program has enabled local populations to access adequate and nutritious food, including milk. Access to milk is strongly associated with better health, even among the elderly. A head teacher of a primary school in Nyamasheke district suggests that *Girinka* is helping the poor to access

nutritious food, which was not normally consumed due to scarcity.

The people of this area used to buy milk in Nyanza whenever they travelled to Kigali. And there were very few, mainly civil servants going to ministries and a few traders who could afford it. Now, however, it is possible to get milk locally and at affordable prices if one does not own a cow. We believe everyone will

get a cow. Girinka has brought milk here and improved people's health.

In addition to improved nutrition, Figure 3.25 outlines several health-related benefits derived from *Girinka*, according to citizens in the nine districts visited by the NHDR research team.

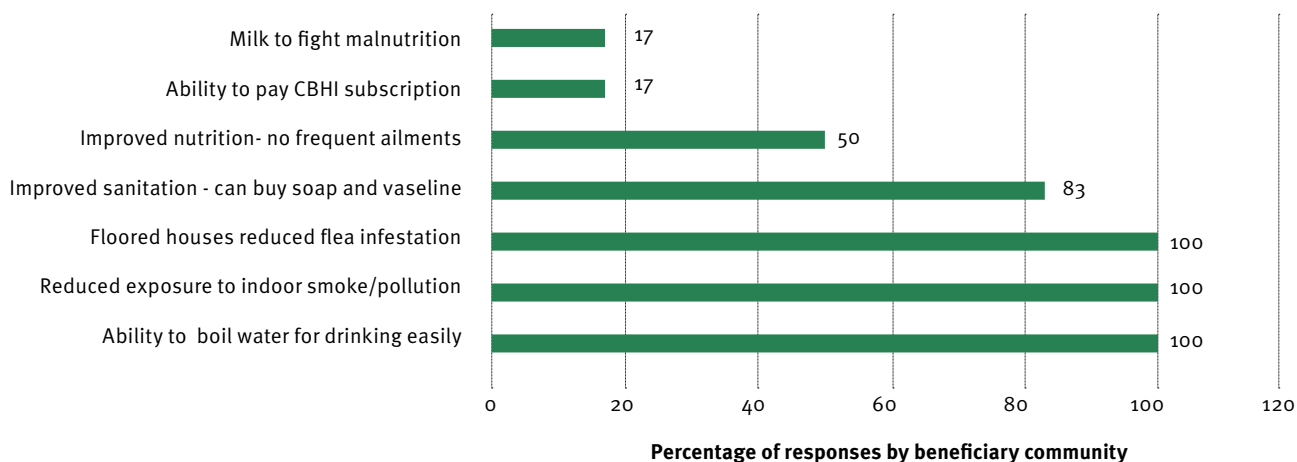
To date, the *Girinka* Program has yet to exploit the potential of biogas energy from cow dung. Biogas has proved to provide cleaner and cheaper energy, which has multiple benefits for health and standards of living. However, its uptake is still very low, and as a result, women, especially in rural areas, continue to face the problem of respiratory tract infections that are linked to indoor pollution due to reliance on biomass fuels. These fuels are, however, increasingly inaccessible and costly, which imposes an extra burden on women and children, in particular, who are traditionally the ones who look for fuel.

Although Rwanda has a strategy for promoting biogas, few people have adopted the technology. In Bushekeri sector, Nyamasheke district, which is one of the energy-scarce areas, only four out of 479 *Girinka* beneficiaries have installed biogas digesters. This number has not changed over the last 17 years. Appropriate incentives, including mass training of biogas technology installers and the provision of affordable credit for households

The *Girinka* Program has yet to exploit the potential of biogas energy from cow dung. Biogas has proved to provide cleaner and cheaper energy, which has multiple benefits for health and standards of living.

FIGURE 3.25

Most common community-identified contribution of the *Girinka* Program's to living a long and healthy life



Source: Primary data from FGDs in selected projects.

to construct biogas digesters, among others, should be considered to enhance biogas adoption as a cleaner and more affordable option.

Umuganda's contribution to long and healthy lives

Umuganda's main contribution to long and healthy lives is through improved hygiene and sanitation for vulnerable people. This can be achieved by filling the infrastructure gap through the construction of sanitation facilities.

According to Table 3.12, just over 40 per cent of the 30,314 sanitation facilities for vulnerable people were constructed in the Eastern Province during 2016/17 alone. Understandably, the people who benefited the least from *Umuganda*-constructed sanitation facilities lived in Kigali City. This does not imply, however, that Kigali City residents are better-off than their counterparts in other provinces. The main challenge in Kigali City is that most of the poorest residents and the most vulnerable do not have land or permanent dwellings where such facilities can be set up by community members or through other efforts.

Umuganda has contributed to the implementation of the health sector strategic plan and a reduction in the number of people who have to walk long distances to health centres.

TABLE 3.12

Sanitation facilities constructed by *Umuganda* for vulnerable people

Province	Number of sanitation facilities constructed
Kigali city	221
Southern	9 213
Northern	5 679
Eastern	12 885
Western	2 316
Total Rwanda	30 314

Source: MINALOC, *Umuganda* Annual Report 2017/18 (2018).

At the community level, *Umuganda's* contribution to improved healthcare is mainly reflected in the construction of health posts. During 2016/17 alone, local communities constructed 12 health posts across the country (Table 3.13).

Umuganda has also contributed to the implementation of the health sector strategic plan and a reduction in the number of people who have to walk long distances to health centres. The Government of Rwanda plans to establish at least one health post in each cell.

Umuganda has also improved community hygiene by cleaning public spaces; Table 3.14 shows that more than 114,797 m² of public

TABLE 3.13

Number of health posts constructed under *Umuganda*, FY 2016/17

Province	Number of health posts
Kigali City	0
Southern	3
Northern	6
Eastern	6
Western	1
Total Rwanda	12

Source: MINALOC, *Umuganda* Annual Report 2017/18 (2018).

TABLE 3.14

Hygiene improvement in public spaces through *Umuganda*, 2016/17

Province	Area of public space (m ²) cleaned
Kigali City	104 559
Southern	9 669
Northern	83
Eastern	336
Western	150
Total Rwanda	114 797

Source: MINALOC, *Umuganda* Annual Report 2017/18 (2018).

spaces were cleaned during 2016/17. Given the large number of people that use such spaces, improving hygiene is directly related to better healthcare for the population.

In Kigali City, *Umuganda* allowed for the largest number of public places with improved hygiene (Table 3.14), possibly because it is more likely to have more recreational and other public spaces than other provinces.

Thus, although it is difficult to quantify the contribution of *Umuganda* to health, it is nevertheless important to recognize its contribution to the expansion of health infrastructure in addition to the provision of an effective platform for community mobilization and communication of preventive health messages. CHWs and other healthcare providers have used *Umuganda* to communicate to and educate the local communities on topics such as immunization, malaria prevention and control, family planning, nutrition and child health. Given its direct and cost-effective nature, *Umuganda* meetings and, in particular, post-*Umuganda* meetings, are the most effective way to reach the majority of citizens, especially in rural areas.

Home-grown solutions and the National Human Development Index

The above section of the Report provided ample evidence on the contribution of HGSs to human development indicators across the three core dimensions. Briefly, in this section, efforts are made to link the NHDI and the selected HGSs to determine if there is any relationship at the district level. The analysis shows that increases in overall coverage of CBHI and VUP are significantly associated with increased NHDI values. More importantly, the analysis shows that a higher average coverage of combined HGSs per district is associated with a significant increase in NHDI. Further, the magnitude of this coefficient is larger than the magnitude of coefficients for individual HGSs by a multiple of ten. For VUP components, VUP-DS and VUP-PW were associated with an increase in NHDI value.

Thus, HGSs have positively and strongly contributed to human development, and

these initiatives continue to be adjusted in Rwanda's transformation journey. Rwanda should look into further linking these initiatives to concrete human development outcomes in order to achieve the maximum impact over the next decades. It should also aim at exploiting the synergetic effect that can be generated by the HGSs. While the institutions that implement these programs are different, there should be a mechanism to assess the effect of the interlinkages between programs and when positive, foster them.

3.3 Enhancing conditions for human development: The fundamental role of home-grown solutions in sustaining improvements in human development

3.3.1 Restoring the dignity and self-esteem of the poor

In this Report, the combined contribution of the five HGSs to enabling factors of improved human development is discussed. The *Girinka* Program confers upon poor people the status of asset ownership. It has reawakened the historically central position that cows occupied in the social, cultural and economic lives of Rwandans. The approach of starting with the poorest and most deprived, and the transparency and equity integrated in the process to select *Girinka* Program beneficiaries promoted equity and instilled a sense of confidence in the citizenry that the Government is concerned about their wellbeing. This has rekindled hope that they could possess cows with its associated benefits. Partly as a result, the thinking among the poor (even those yet to be selected to benefit from the *Girinka* Program or VUP) is changing from despair and desperation, to hope and self-respect.

The *Girinka* Program and VUP, especially VUP-DS, have enabled poor people to access basic needs – food, clean clothing, beddings, soap, cooking utensils. In all districts, beneficiaries reported that their image was improved because they now look presentable.

The *Girinka* Program confers upon poor people the status of asset ownership. It has reawakened the historically central position that cows occupied in the social, cultural and economic lives of Rwandans.

When dignity is restored, poor people's perceptions about life tend to change – from a narrow view of bare survival to a life of hope.

They are motivated to attend meetings and go to public places. Some even reported that they used to dread going to hospitals for fear of stigmatization, but they now bathe, dress up, walk proudly and sit among other people. This has brought them closer to other citizens with whom they can interact and share ideas. This is extremely significant, because when dignity is restored, poor people's perceptions about life tend to change – from a narrow view of bare survival to a life of hope. Their motivation to think and work beyond a day's meal increases, which creates a responsive environment for all interventions to improve their wellbeing, including child nutrition and schooling, and even family planning. A community health worker and mother of six from Musanze district explained:

We used to have children without planning. I would just find myself pregnant again. We didn't even consider our poverty situation and didn't realize that the children were malnourished because we had many of them. Then I realized that I had work to help my husband, and we couldn't afford to look after many children. That's why we embraced the National Office of Population (ONAPO) [family planning services].

I was trained to help others, and the number of women who come seeking ONAPO is increasing. Here, it is actually men who are pushing their wives to control births, reasoning that they won't be able to take care of the children. Yet previously, even women who wanted this would not dare tell their husbands.

VUP is designed to promote productivity since in the program, poor but able-bodied people are enrolled in public works rather than be given cash hand-outs. The expanded VUP is addressing the challenges that the poor face by giving them lighter and more convenient tasks. Through this approach, it is expected that poor citizens will graduate out of poverty as they develop confidence in their own abilities. It also promotes human rights and expands freedoms, particularly the right to work.

Even those considered destitute and who have received direct grant support have saved and invested, rather than just consumed. The productivity potential undermined by disability, illness and old age appears to have been revitalized through VUP.

VUP has increased the dignity and worth of beneficiaries in multiple ways that directly address multi-dimensional poverty issues. The testimony of a 64-year old beneficiary of VUP-PW in Nyagatare district provides a clearer explanation of the multiple impacts associated with VUP:

I used to look like an animal. Both people I know and people I don't know would not get close to me. But now I'm clean and dress well. People meet and greet me, and I sometimes wonder how I have changed. I have enough food and can easily get things on credit from the shop because they know I'm able to pay. I used to think that people don't like me, and I also hated myself. But now I realize that it was because of poor hygiene. I feel like I'm now a full human being and I'm more motivated to work and develop myself beyond just finding what to eat. As you can see, no one discriminates against me and I'm able to attend meetings, sit among other people and even say something. VUP has really transformed me.

Many poor people pointed out that they are now recognized and have a sense of a new or reclaimed identity. Many beneficiaries, especially among VUP-DS beneficiaries, reported that they had never before felt like full citizens and as a result, hardly attended meetings. They also believed that the Government did not know or had forgotten about their existence. However, being nominated by fellow citizens and local leaders to benefit from programs such as *Girinka* and VUP restored their trust in the Government and in their fellow citizens, and their hope and sense of belonging. Their perceptions about themselves, other people and the Government have changed because they now feel that other community members and the Government care about them. In the process, this is also helping to build

patriotism. They are always working towards something – at least for themselves, as a debt they owe to society. A common observation of most of them is that their horizon has widened beyond daily survival. As stated by a 36-year old beneficiary from Muhanga district:

Poverty puts you down to the extent that no one can invite you to a wedding or even buy you a drink, even if they are your closest neighbours. Sharing with others is difficult. That is the experience I had, me and other poor people in this area before VUP came. Now, however, people have hope in me because I have moved from one level to another. Sometimes I am also surprised at where God pulled me up from through this VUP. From the money I earned working for VUP, I built a house and used the balance to grow and sell vegetables and yams. Now I have poultry, pigs, goats and cows. Imagine! My hope now is to plaster and floor my house.

They are now able to visualize and pursue a future beyond now, as expressed by a local leader:

You would tell someone to bathe, wash clothes and maintain personal and homestead hygiene, but they would not heed the advice. However, they would always respond with insinuations, of what value it is, after all, I'm about to die. They didn't see value in keeping clean. However, ever since they started receiving the VUP-DS grant, a lot has changed, especially in their attitudes and mind-sets. These days, most beneficiaries are taking care of themselves, including personal hygiene.

Human dignity of the poorest people, the elderly and persons with disabilities (PWDs) has been restored through VUP-DS grants, which enable them to meet their basic needs and ensure their personal security. In their own words, these citizens of these specific categories have come closer to mainstream society and changed their perception of life due to the VUP-DS.

Similarly, household *Imihigo* has enabled many women to claim their space in the

household decision-making and increased men's appreciation and value of their work in managing the family. Women's role very often remains insufficiently recognized, but through the *Girinka* Program and VUP, it is valued. Under VUP-PW, men and women tend to alternate in participation; whenever the household head is indisposed or unable to work, it is usually the wife who participates, so that the household does not lose its day's wage and the wages earned go to the household. Also, since the job opportunity has been given to the household, and household members are aware of the importance of each day's wage, it is usually difficult for the household head to divert or misuse the money without being observed. VUP was reported to have reduced incidences of domestic violence that many citizens and local leaders attribute to poverty within households.

Umuganda has become more community-managed and -owned and is gradually being integrated in the local development budget. Local government budgets now plan for activities and identify those that should to be implemented through *Umuganda*. It is an approach they refer to as *kunganira ingengo y'imari ya leta* (supplementing the government budget). In effect, the Government recognizes that citizens contribute to the public budget through *Umuganda*, and local government officials skilfully communicate this to them as part of citizen mobilization. This has enhanced the sense of dignity and patriotism among ordinary citizens, because they feel valued and respected by government officials. The attitude of leaders towards citizens was also reported to have significantly changed. They are collaborative, consultative and respectfully engaging. Their rights are respected, and if they have concerns or complaints, they are not afraid of raising them. They have been empowered through platforms like *Umuganda*.

3.3.2 Strengthening social cohesion

According to the United Nations, there are three distinct elements of social cohesion that are critical to human development:

Umuganda has become more community-managed and -owned, and is gradually being integrated in the local development budget.

A key characteristic of poverty and deprivation in Rwanda is having limited social networks and the perception of being isolated.

- social inclusion, which refers to the degree to which all citizens can participate on an equal footing in the economic, social and political life, whether or not they are protected in times of need.¹²⁶
- social capital, which refers to **trust between people and in institutions, and the sense of belonging to a society**, and hence impacts on solidarity between its members. In addition, lack of inter-group conflict usually relates to social capital and social inclusion;
- social mobility, which refers to equality of opportunity to prosper, with few or reduced disparities between individuals and near zero marginalization, and lack of discrimination.

In an effort to measure the outcomes in social cohesion and human development, and HGSs' contribution to these outcomes, the Report adopts the indicators suggested by UNDP (2013a), which are also consistent with the objectives pursued by the Government of Rwanda through national unity and reconciliation, participatory and inclusive governance, resettlement and social protection policies, among others. These indicators include: (i) people with strong bonds with each other and with society at large; (ii) people's level of trust in each other irrespective of group membership; (iii) the level of trust in the Government; and (iv) the strength of national identity, i.e. the degree to which citizens feel national or collective identity as opposed to other identities.

Given Rwanda's post-genocide reconciliation challenges that are rooted in its colonial and much of its post-colonial history, issues related to integration, trust, equality, solidarity and belonging are highly critical aspects of development. These aspects have been at the forefront of defining post-genocide Rwanda's governance and socio-economic development pathways since 1996. In Rwanda, like most pre-industrial societies, social capital is a very important asset for economic and social development. People rely on each other to make progress in all aspects of day-to-day living – from tilling their small plots of land (through initiatives such as *Ubudehe*, *Umusanzu*, *Umuganda*) and ensuring good

health and security of persons and property, to solving community challenges (through *Umuganda*). Social cohesion outcomes are therefore directly and indirectly linked to progress in human development, and especially to increasing resilience.

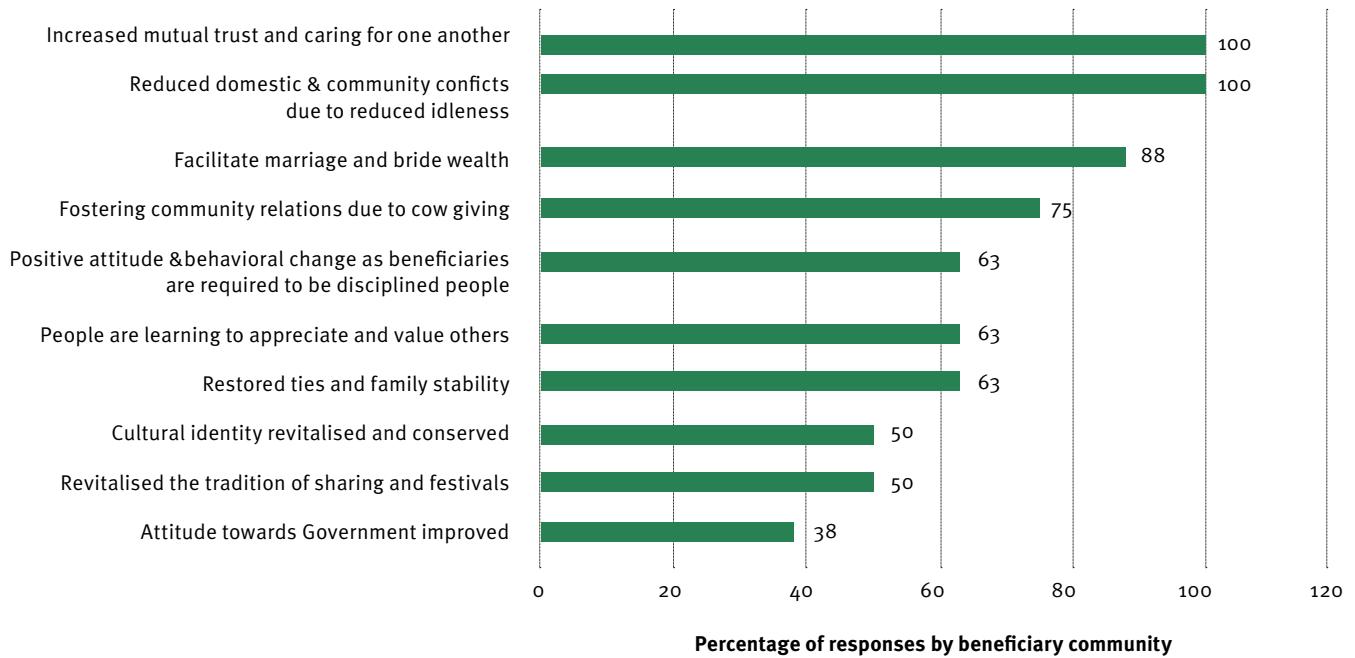
Qualitative data analyses from the FGD in the nine districts visited show that all of the above aspects of social cohesion were confirmed by over 50 per cent of the beneficiaries as a benefit of the *Girinka* Program (Figure 3.26), with the highest benefit being improved citizen-state relationship and the revitalization of traditions of sharing. In addition to the bonding created when one cow beneficiary gives another, *Girinka* Program beneficiaries in all districts are giving milk to their neighbours free of charge to fight malnutrition instead of taking it to the market to earn needed income. They are sharing manure from cow dung when there are opportunities to sell it and earn income. *Gukamira* (the sharing of milk) is usually practised where a deprived household has young children susceptible to malnutrition and are unable to afford milk. It is helping to fight multidimensional poverty and fostering social cohesion, which are two of the main challenges to human development in Rwanda. Importantly, social capital is critical to enhancing human development, especially in sustaining the gains in post-genocide peace building.

As illustrated in Figure 3.27, the most profound impact of HGSs, specifically the social protection strategies of *Girinka*, CBHI and VUP, is the hope inspired among beneficiaries. HGSs have inspired and are inspiring the establishment or rebuilding of social capital in communities. This is fundamental to sustainable human development in countries like Rwanda where people, especially the poor, historically relied on community assets to develop.

In the context of Rwanda, rebuilding social capital may be an effective way to establishing or restoring social cohesion. A key characteristic of poverty and deprivation in Rwanda is having limited social networks and the perception of being isolated. This is because in traditional Rwanda, whose positive values

FIGURE 3.26

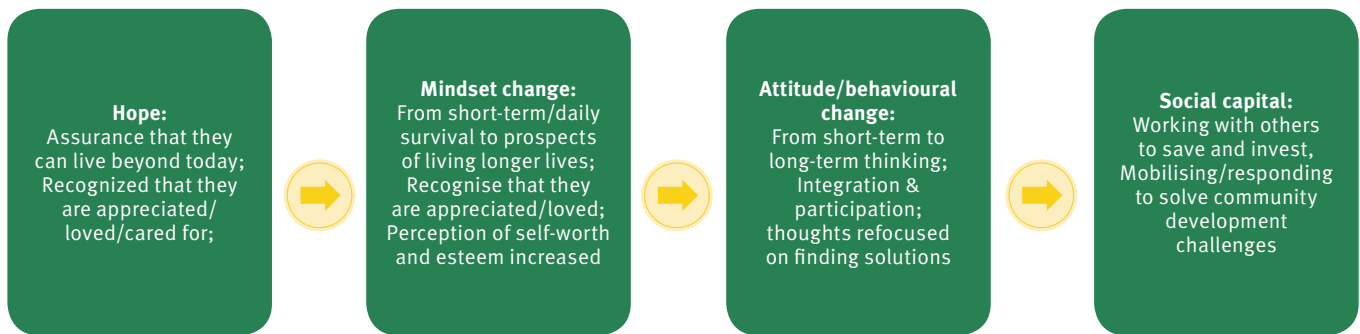
Most common community-identified social benefits from the *Girinka* Program



Source: Field data, May–June 2018.

FIGURE 3.27

How home-grown solutions catalyse human development progress through social capital formation



the Government has been trying to restore or recreate, people and the quality of their relationships were considered the most important asset. It is partly, if not largely, this premise on which the acts of giving or sharing (*guhanga*, *kuremera*) through such practices are based, i.e. *Girinka*, *Umusanzu* and *Umuganda*, as well as conflict resolution through (*Abunzi*) mediation or *Gacaca* (‘traditional community-based courts based on

truth-telling’). Indeed, under the *Gacaca*, the first HGSs, nearly two million genocide cases were tried; the most important qualification for judges was *Ubunyangamugayo* (impeccable integrity) and people’s trust that they can deliver justice.

Social cohesion, however, begins with the well-being, stability and of prosperity of the family unit. This has been impacted by HGSs in many ways, especially in terms of shared

The new environment created by the shared priorities of realizing *Imihigo* targets and the work motivation or ‘busyness’ it has generated has graduated eliminated the conditions for domestic conflict.

vision, joint planning and resource utilization for wealth creation and social development.

Field observations and testimonies from women, youth, children, local leaders and community development actors suggest that domestic relations are changing as a result of two key innovations, namely *Girinka* Program and household *Imihigo*. Household heads now consult and negotiate with their wives and other household members in setting *Imihigo* priorities. After signing the household *Imihigo*, they mobilize household labour and other resources to work together to achieve the set targets.

The new environment created by the shared priorities of realizing *Imihigo* targets and the work motivation or ‘busyness’ it has generated has graduated eliminated the conditions for domestic conflict. In many male-headed households, women are the custodians of the household *Imihigo* cards or records. The efforts of all household members are acknowledged and appreciated when the household meets their *Imihigo* targets. Women and children are usually the main beneficiaries of most of the social and economic *Imihigo* targets set and realized by the household. These targets frequently include the timely payment of CBHI subscriptions, improved housing conditions, the prevention of violence, and the acquisition of domestic assets. E.g. bedding, food security, payment of school fees, provision of school materials and increased household economic assets.

From field visits, it was reported that social tensions often occur when there are strange or prolonged illness, unexplained human deaths, or even failures and related misfortunes in business, farming or marriages. They tend to be perpetuated by extreme poverty, low levels of education, multiple deprivations and disillusionment. CBHI was reported to have contributed to reduced intra-community conflict by virtually eliminating the habits of delayed treatment, self-medication with unregulated herbs, and in many areas, treatment by unqualified or fraudulent medical practitioners. These habits had always resulted in prolonged illness and in some situations, deaths. Such deaths would usually be blamed on neighbours or even relatives, resulting

in conflicts that were difficult to deal with. Moreover, prolonged illness is associated with poverty and food insecurity because it diverts the most critical resource, i.e. labour from crucial productive activities. Citizens argued that with CBHI, people no longer have an excuse to treat themselves with herbs or to recur to fraudulent paramedics since they no longer fear costs of treatment at health centres due to CBHI. In addition, health centres provide clear diagnoses so that in case of deaths, the causes are usually clear, a situation that has eliminated suspicion and rumour mongering, which always led to conflict. Indeed, although this view is held across many areas of Rwanda, it was frequently mentioned in Western and Southern Provinces.

In conclusion, the progress made throughout the years in social cohesion is vividly reflected in key indicators of perception surveys that are carried out regularly. Rwandans are increasingly clear about the shared future, according to the Rwanda Reconciliation Barometer.¹²⁷ They value shared identity, have positive perceptions about security and well-being, and believe that there is justice, fairness and respect for human rights. These tenets of good governance and social development are being institutionalized through *Umuganda* and *Imihigo*, as well as through numerous local initiatives such as *Isibo* (a cluster of households in a neighbourhood) and *Umugoroba w’ababyeyi* (parents’ evening dialogue platforms). A few factors account for these good scores in the social development card, including: reduced inequality through interventions that foster equity such as CBHI and VUP; reduced poverty; improved standards of living; increased participation; and a government that is closer to them through decentralization, sensitization and awareness-raising efforts at all levels; and inspirational leadership that envisions and works towards better future for all.

3.3.3 Reducing inequality and building an inclusive economy

Inequality in Rwanda has declined over time, as shown in Figure 3.28, but it remains high. Over the last several years, the inequality gap has gradually narrowed in terms of

income, as well as, importantly, in terms of access to essential social and economic services. Reflecting the progress made in reducing income disparity, the Gini coefficient declined from 0.507 in 2000 to 0.488 in 2014, and further declined to 0.42 in 2016/17.

The dynamics of inequality are briefly described below in order to investigate gender inequality and rural-urban income inequality. These aspects of inequality are later linked to HGSs. Gender equity and equality in rural and urban areas are critical measures for understanding human development, as stated above in this chapter. Rwanda is known for its high achievement in narrowing the gender gap across multiple fronts, including the social, economic and political dimensions, but it is important to empirically assess the situation at the household level. While, in general, progress has been made, gender inequality persists at the household level due to behaviours that are socially, historically and structurally embedded.

Indeed, the analysis shows that, in 2016/17, a large proportion of female-headed households (36.9 per cent) are in the bottom 40 per cent of the population, whereas close to 34.9 per cent of male-headed households are in the bottom 40 per cent and 35.4

per cent of all households are in the bottom 40 per cent, implying that female-headed households are disproportionately represented in the lower income group.¹²⁸

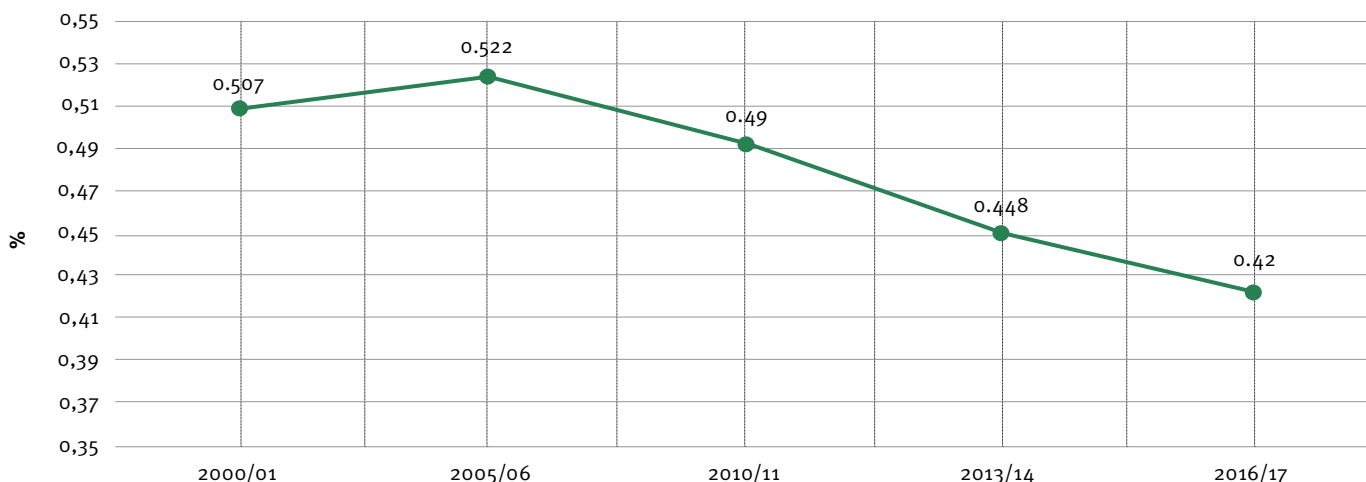
A deeper analysis of their socio-economic status also implies that female-headed households are associated with lower consumption rates and lower education outcomes. For example, EICV data analysis shows that female-headed households are associated with a reduction in the likelihood of attending a recent medical consultation by 29 per cent, a reduction in the likelihood of household literacy by approximately 22 per cent, and a reduction in household savings account access by 39 per cent.¹²⁹ This indicates that Rwanda could harness the full potential of its population by addressing all of the factors that reduce equal opportunity for women to access social and economic services, which would accelerate further progress in human development outcomes.

HGSs policies target gender inequality both explicitly and implicitly. For example, *Girinka* aims at distributing more cows to female-headed households than male-headed households in order to address disparities in poverty and vulnerability status based on gender. Similarly, the frequency of new CBHI

Rwanda is known for its high achievement in narrowing the gender gap across multiple fronts, including social, economic and political space.

FIGURE 3.28

Inequality trends for Rwanda (Gini Index)



Source: National Institute of Statistics, 2018a.

Rwanda still faces a rural and urban divide in terms of income inequality.

enrolment increased more for female-headed households than for male-headed households from 2010 to 2013, with a 3.1 per cent increase for *female-headed* households and a 1.31 per cent increase for male-headed households. VUP-DS shows significant targeting of female-headed households in the VUP panel dataset, but not for VUP-FS. These findings suggest that HGSs policies can be beneficial due to increased attention to policy targeting for supporting female-headed households. Again, the importance of a policy and sub-population-specific impact evaluation using policy-focused data should be highlighted.

Using the household dataset built on the EICV 3–5 survey data, it was found that HGSs contributed to reducing inequality of income and education attainment, etc., but could not completely cushion the historically disproportionate representation of female-headed households in the lower socio-economic status.¹³⁰ The inference from the dataset provides some empirical evidence that HGSs, particularly CBHI, are beneficial in terms of reducing gender inequality since they targets female-headed households. It is recommended that an in-depth analysis of the differences between male- and female-headed households and an even deeper analysis at the individual level, not just aggregated to households, should be undertaken to yield additional insights.

While Rwanda still faces a rural and urban divide in terms of income inequality, it has made significant strides to address it. HGSs have played a critical role, but there is still significant room for improvement. It should be noted that Rwanda had experienced rising inequality during the 2001–2005 period despite heavily investing in social sectors but managed to reverse the trend considerably after adopting and integrating these HGSs as part of the EDPRS 1 and 2, especially *Girinka*, scaling up CBHI and introducing *Imihigo*.

An analysis was performed using the EICV data to obtain a deeper understanding of the state of rural and urban inequality. It shows that, even controlling for HGSs policy coverage, being in a rural area is associated with lower household consumption, educational

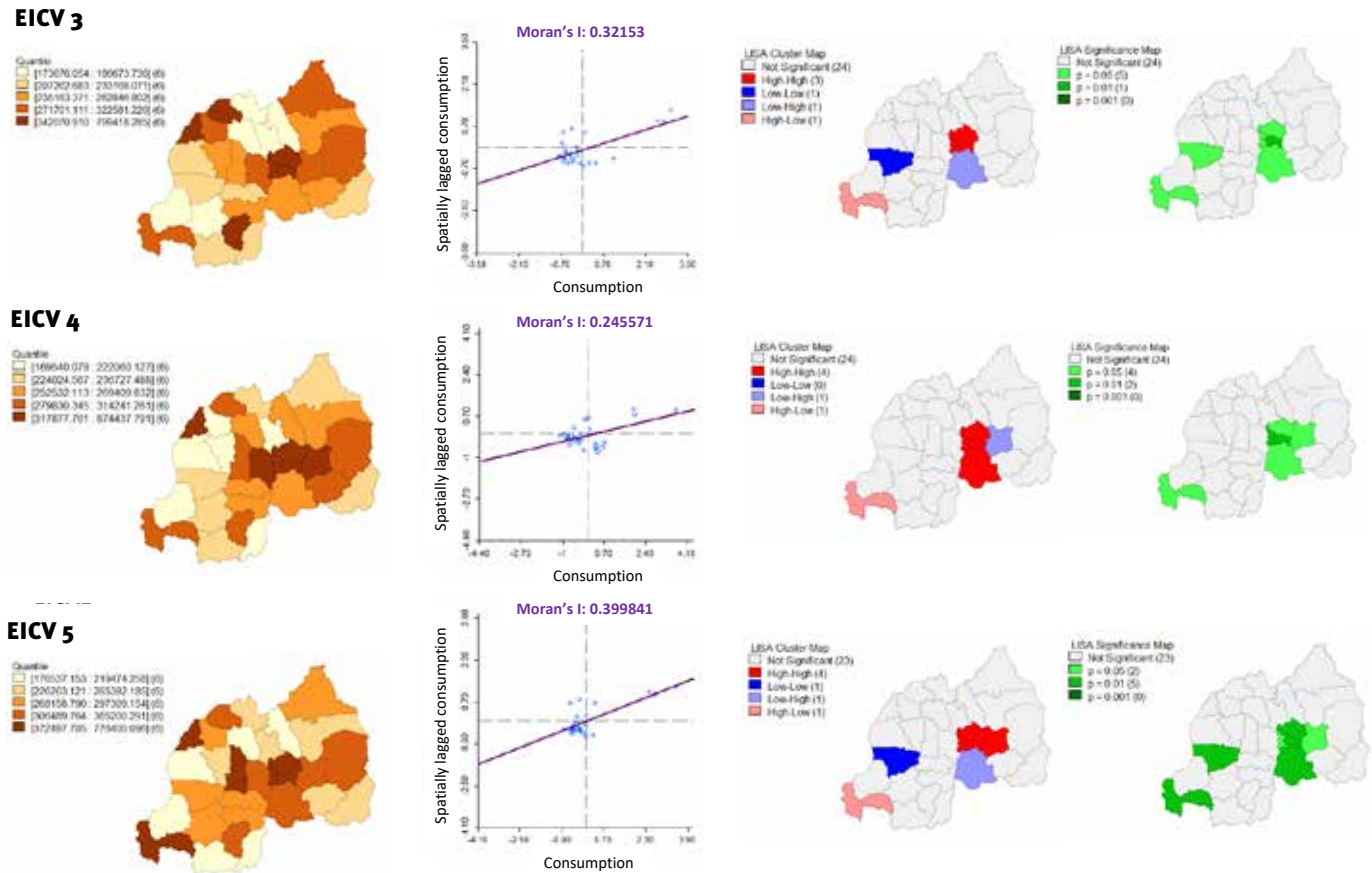
attainment and education outcomes, such as simple reading and writing.¹³¹

According to the Integrated Living Condition Survey 2018 – Main Indicators Report 2016/17 (NISR, 2018b), in 2016/17, rural poverty was 43.1 per cent and urban poverty, 15.8 per cent. The report also indicates that between 2014 and 2016, rural poverty declined marginally, from 43.7 to 43.1, while the level of urban poverty did not change. Although this indicates that little may have changed in terms of the rural and urban divide, to ascertain the findings, the authors developed a cluster map (right side of Figure 3.29). While there was a decline in the clustering of high consumption in Kigali districts between the two periods 2010/11 and 2013/14, suggesting a slight reduction in inequality between urban and rural districts, however, this clustering increased to above previous levels from 2013/14 to 2016/17 (Figure 3.29). Furthermore, the analysis shows that reduced consumption was clustered in Western and Southern districts, particularly Rutsiro, Rubavu and Nyabihu.¹³² Going forward, increased inequality reduction policies focused on these districts may help to reduce inequality across Rwanda.

In terms of the contribution of HGSs' policies to reducing inequality, while they are aimed at supporting lower consumption quintile populations and those in rural areas of higher poverty, a more systematic indicator related to inequality needs to be developed. Encouraging signs were observed at the household level for selected HGSs. CBHI is associated with a significant increase in household's consumption for the bottom 40 per cent of the population.¹³³ This effect is insignificant but positive for *Girinka*. However, *Girinka* is associated with significant, encouraging trends in own food consumption and a reduction in purchased food consumption for the bottom 40 per cent of the population. As emphasized throughout this Report, a narrowly focused policy impact evaluation would be useful for assessing the role of *Girinka* and CBHI, and their interaction in human development for the bottom 40 per cent and rural populations, respectively.

FIGURE 3.29

Consumption levels by districts, and spatial clustering and significance maps of consumption



Source: NISR, Rwanda Integrated Household Living Conditions Survey EICV 3 to 5.
 Note: Consumption levels (left, quantile coverage maps) from EICV 3 to EICV 5, and clustering and significance maps of consumption (both right).

The Government's intervention to cover the CBHI premium for the bottom poor, as well as increased support (through VUP and *Girinka*) for the other categories of poor households have allowed to increase enrolment in CBHI. As discussed in the previous chapters, CBHI has helped to reduce major inequality in health service delivery and enabled improved access to knowledge and standard of living. This was further affirmed by other studies, which indicate that the poorest quintile accounted for only 10 per cent of the primary healthcare outpatients in 2000, and the richest quintile, 40 per cent; however, in 2013, the poorest quintile accounted for 20 per cent of primary healthcare outpatients, and the richest quintile, 22

per cent healthcare.¹³⁴ CBHI has enhanced equitable access to healthcare, especially since 2010, by establishing a system where the premiums are set according to the *Ubudebe* category, but all subscribers receive the same care. Cross-subsidies from the wealthier categories 2, 3 and 4, as well as the State, which pays all premiums and fees for category 1, ensures that those who lack assets and the extreme poor are supported by the scheme. This has not only helped increase access to healthcare (especially since the poorest are the most susceptible to falling ill), but has also contributed to reduced income inequalities and protected the poor from the risks associated with catastrophic out-of-pocket expenditures.

CBHI has enhanced equitable access to healthcare, especially since 2010, healthcare by establishing a system where the premiums are set according to the *Ubudebe* category, but all subscribers receive the same care.

Targeting of VUP could be improved by focusing on the bottom 40 per cent of the population because the three components within VUP are scaled up. This program is currently not specifically targeting this group, particularly its VUP-DS and VUP-FS schemes. And yet, this targeting is important within the framework of Agenda 2030 where Rwanda has made a commitment to leave no one behind, which entails targeting the bottom 40 per cent of the population. VUP could be used to support households in rural areas that are not eligible for Girinka support, which could lead to a greater contribution of HGSs to improving human development.

In assessing the contribution of HGSs to narrow the gap in human development, it emerges that CBHI and Girinka strongly and positively contributed to the bottom 40 per cent for all the three aspects of human development. An in-depth analysis should be carried out to determine the contribution of HGSs to addressing inequality in human development outcomes.

Similarly, while progress has been made, rural people have limited capacity to exploit alternative livelihood opportunities such as tourism and trade, although supportive infrastructure such as roads and electricity, has expanded in the area. As a result, many people remain stuck in agricultural activities even when there are opportunities to diversify livelihoods and develop enterprises. It is within this perspective that the Government's approach to building an inclusive economy is to spread opportunities for growth from the capital of Kigali City and its environs where most wealth is concentrated. Since the EDRPS 2, the Government has embarked on a plan to modernize secondary cities and establish them as catalysts for regional growth and innovation. This is further reaffirmed by the new long-term Vision 2050 and medium-term plan NST I.

In addition, the above strategic intervention could be complemented with specific programs informed by local context such as environmental, social, cultural and economic conditions. For example, the Kivu Crate, which covers most of Western Rwanda, has

persistently recorded high food insecurity (NISR, 2015, NISR, 2012), largely due to poor acidic soils, small land holdings and land degradation (mainly through soil erosion). This is exacerbated by high population density and low literacy levels, among others. As Rwanda continues to aspire to leave no one behind during the SDG era, a more focused intervention that targets the most vulnerable will continue to be the means through which Agenda 2030 will be delivered, such as interventions targeting youth in rural areas and women. In conclusion, HGSs have contributed to reduced inequality largely because the implemented interventions have targeted the people at the bottom of the wealth ladder, both in terms of gender and geographical location. However, this relationship varies by district and by type of policy under consideration.

3.4 Promoting effective social participation and building social and political institutions

3.4.1 Effective social participation

Poor people's participation in the economic, social, cultural and political development of their community, society and country is a critical aspect of human development. This participation is a reflection of human beings' wish to contribute to their own and others' development, and to be regarded as useful to society. It provides them with an opportunity to share knowledge and use their tangible and intangible assets, including networks, in order to contribute to the general development of society.

One important area of human development to which all five HGSs have contributed significantly is citizens' participation in governance and community development. For example, *Girinka* is contributing in multiple ways to enhancing the enabling environment for human development through social participation:

1. **A renewed sense of hope:** Disillusionment caused by poverty and hopelessness causes self-loathing.

While progress has been made, rural people have limited capacity to exploit alternative livelihood opportunities such as tourism and trade, although supportive infrastructure such as roads and electricity, has expanded in the area.

Girinka has addressed the basic needs of the poor and for many, the cow is a symbol of society's and the Government's blessing to them to become wealthy. They now associate participation in government programs with the opportunity to develop themselves and improve their condition.

2. Motivation through perceived inclusion: A key component of human development, beyond the three core dimensions of income, health and access to knowledge, is citizen's participation in local decision-making. Most people in *Ubudebe* category 1 tended to perceive themselves as excluded or were not overly concerned about government programs; they rarely attended meetings and when they did, would confine themselves to the periphery without making a contribution. Since *Girinka*, many citizens, especially the poor who had perceived themselves as marginalized, have begun to participate actively and even contribute ideas. They trust that forums such as post-*Umuganda* meetings can solve their problems. **Recognition:** *Girinka* has bestowed a sense of recognition among the beneficiaries who now feel they are part of the community. The cow has provided opportunities for the beneficiaries to engage with and receive regular visits by local authorities and other development actors. Many *Girinka* beneficiaries, for example, reported that there was hardly any week that passed without a visit from local government officials or other groups, usually on monitoring or study missions. They therefore feel that they are obliged to participate in government programs and are regularly counselled to be clean, confident and presentable.

An important observation is that there are inter-linkages between the five HGSs in promoting people's participation. *Umuganda* and *Imihigo* have provided space and platforms for women, men, youth and the elderly in local development and service delivery.

The combined effect of the HGSs on social participation is best described by a village coordinator in Nyamasheke district:

Ever since VUP was introduced, most people, even the elderly who are exempted from Umuganda, turn up not just during the meetings, but also when actual Umuganda activities are going on. They participate by telling stories and lifting the morale of others, or sometimes helping with heavy objects. They want to contribute to local development and don't want to miss out on government programs. VUP-DS beneficiaries who don't come during Umuganda time, dress up nicely and promptly turn up for post-Umuganda meetings without fail, unless one is sick or otherwise unable

The post-*Umuganda* meeting where residents congregate to reflect, socialize and discuss development issues also serves as a platform for effective communication of development programs by the Government and other development actors. Local change agents such as CHWs and NGO personnel benefit from it as the most effective platform for communicating government programs and other messages of public interest. Its proven effectiveness in communicating government policy messages, including on security, hygiene, etc. has sparked interest from other development actors.

Thus, empowering communities to participate in, and in many respects, take charge of their own development is a key contribution of HGSs to human development. While almost all of the communities are needy and ideally qualify, the process of selecting beneficiaries, starting with the most affected, is instilling some form of discipline, and people are learning to prioritize. They are becoming increasingly independent in finding solutions to local problems. *Imihigo* has brought about the culture of purposeful living characterized by meticulous target setting and accountability.

While greater efforts need to be made for Rwanda to realize economic and livelihood transformation, there is gradual structural change in the thinking and behaviour of society at the individual, household and

A key component of human development, beyond the three core dimensions of income, health and access to knowledge, is citizen's participation in local decision-making.

Greater efforts need to be made in order that Rwanda can realize economic and livelihood transformation.

group level, which is resulting in new social institutions that uphold the values of hard work, unity, prosperity and discipline. People are setting goals and achieving them; the poor now believe that they can exit from poverty; dialogue at the local level is gradually focusing on development and what the people themselves can do to realize their development aspirations; and the dependency syndrome appears to be declining. This is the foundation of human development. It appears, however, that the capacity of local leadership and change agents to manage the HGSs and associated processes beyond the basics is yet to be developed. This is the source of the main challenges that will need to be addressed, including the risk of stagnation.

Strong and vibrant social institutions are important for consolidating identity, shaping and nurturing the behaviour of communities, and importantly, for providing social safety nets and human security. Political institutions, in contrast, often evolve as a result of the social structure and are critical for translating citizens' aspirations into reality. Social and political institutions are effective if they represent the aspirations of the people and promote social values like equity and inclusion, as well as effectiveness and accountability.

A culture of working together to achieve development targets (promoted strongly under *Imihigo*) is emerging and may become entrenched as a development model, arising largely from the understanding by all citizens and also the poor that they can do more and achieve even more if they work together. *Imihigo* is emerging as an effective way of promoting social accountability, especially in a setting where structural challenges such as poverty and low literacy present major barriers.

***Imihigo* as an effective accountability mechanism**

Imihigo is evolving into an effective institutional framework for public sector accountability and participatory development at the local level. It has brought a sense of urgency and effectiveness in the delivery of public services. *Imihigo* have fostered accountability at

all levels of the delivery chain and enhanced inclusive and participatory development. The quality and efficiency of service delivery have increased, especially in terms of delivering to the poor.

Imihigo's contribution to human development in Rwanda has mostly been systemic. It is therefore analysed from the perspective of systemic improvement in the public investment allocation and service delivery system, as well as citizens' participation in, ownership of, and benefits from the development agenda, which specifically relate to:

- resource allocation, i.e. the effective targeting of public spending for interventions that directly improve human development, especially of the poorest and most vulnerable;
- efficient implementation of service delivery, i.e. *Imihigo* has enabled Rwandans to innovate and work towards achieving more with less resources or inputs;
- accountability, i.e. the central pillar of *Imihigo* is delivering what was promised. Accountability is built around multiple tiers of delivery and regular evaluations/reviews;
- participation of poor and ordinary citizens as a specific target, i.e. the promotion of their social inclusion and enhancement of their dignity.

Key achievements:

- ***Imihigo* have ensured that interventions that directly address the needs of citizens are prioritized in local planning:** Under *Imihigo*, the Government has shifted from the tradition of merely implementing action plans and reporting on what was or was not carried out, to increasingly focus on results that directly relate to citizens' wellbeing and local development. *Imihigo* priorities and targets are set based on specific outputs that are considered transformational for citizens' well-being. A review of district *Imihigo* indicates that the main priorities in the economic cluster are agriculture and infrastructure, which have the largest proportion of targets. In the social cluster, the most

prioritized targets relate to basic education, healthcare and social protection. Thus, *Imihigo* focuses extensively on the dimensions of human development. Regarding other HGSs, *Imihigo* in all districts have targets that relate to VUP, *Umuganda*, CBHI and *Girinka*. By ensuring that these HGSs are prioritized in the local action plans, financing these investments is guaranteed. By consistently prioritizing these HGSs in their high impact actions, at least over the last five years, *Imihigo* have provided a framework for effective pro-poor service delivery. *Imihigo* have also played a catalytic role by providing a mechanism in which targets for other HGSs are set and by ensuring that they are fulfilled.

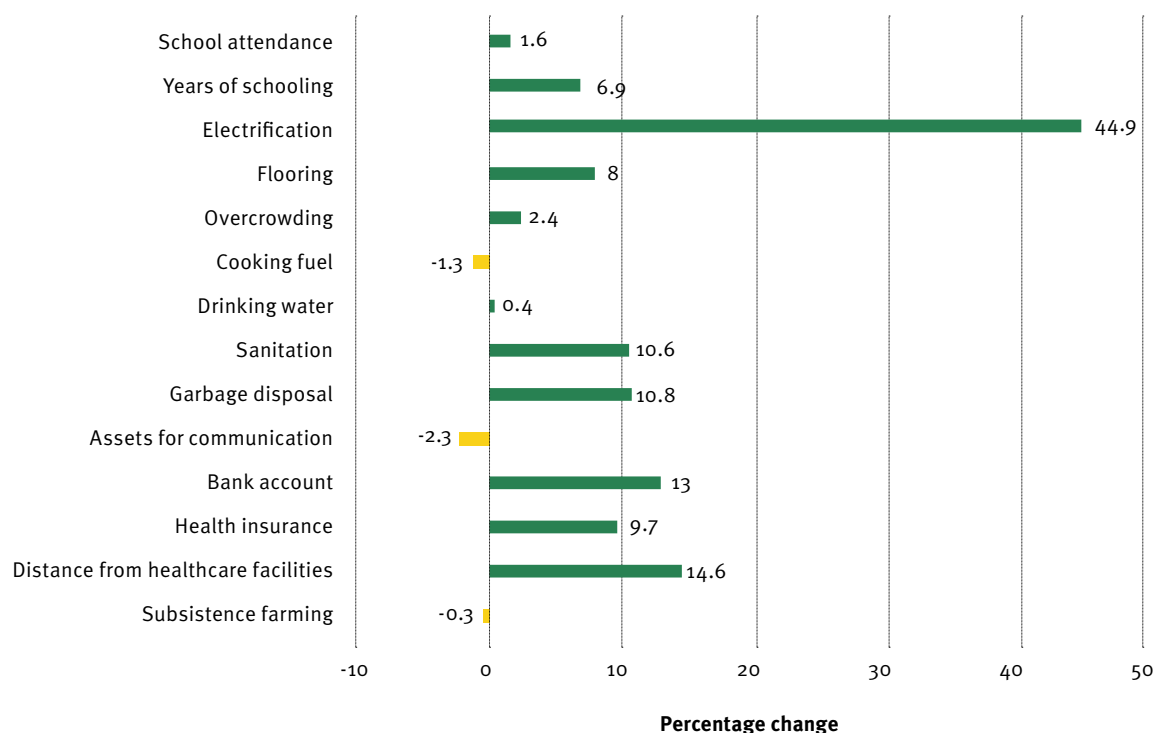
- **Priority and target setting have gradually improved from simple outputs** (e.g. number of people wearing shoes)

to more sophisticated development targets (e.g. classrooms constructed, and markets established). In addition, *Imihigo* have been aligned with national development priorities as well as the budget, which has ensured that the targets can be funded within the national public investment framework. Through better targeting, *Imihigo* have contributed to reduced incidences of multi-dimensional poverty. Figure 3.30 shows the progress made from 2010 to 2017 in selected multi-dimensional poverty indicators for which districts set *Imihigo* targets. They have made improvements that are significant in some areas and highly marginal in others.

A review of district *Imihigo* indicates that the main priorities in the economic cluster are agriculture and infrastructure, which have the largest proportion of target.

FIGURE 3.30

Change in share of poor people deprived in each of selected multi-dimensional poverty indicators in 2010/11 and 2016/17



Note: The indicators are retrieved from EICV 3 (2010/11) and EICV 5 (2016/17)
Source: NISR (2018c) Rwanda Multi-dimensional Poverty Report.

The focus on results ensures accountability in the delivery of services and allocation of public investments.

Figure 3.30 shows that the greatest reduction in deprivation was in access to electricity, followed by distance to healthcare facilities, possession of a bank account, and having garbage disposal and sanitation services. All districts set performance targets in these areas. The 8 per cent reduction in the proportion of poor people deprived of housing (housing without floors and overcrowding) may relate to *Imihigo* targets such as VUP-PW and VUP-DS as well as *Girinka*, where beneficiaries invested the earnings in improved housing conditions.

The marginal reduction in deprivation attributed to school attendance (1.6 per cent) and drinking water (0.4 per cent) suggests that the targets set for *Imihigo*, which were included by all districts in each of the last five years, was not accompanied by requisite investments, which should ideally be ascertained from the annual *Imihigo* evaluations. In the area of energy (cooking fuel), assets for communication and subsistence agriculture, the proportion of deprived poor people increased. This may be largely due to inadequate performance in the agriculture targets, especially in relation to access to inputs and extension services, as well as limited to no activity in cooking fuel despite setting targets. For communication targets, no district set specific targets. Moreover, this depended on private investment.

- **The focus on results ensures accountability in the delivery of services and allocation of public investments:** The evaluation and ranking of performance had specifically focused on achievements while the factors for achievement or under-achievement were not sufficiently addressed. In the *Imihigo* 2017/18, the two or three best performing districts scored over 80 per cent, which implies that they met most targets (all but one in five). The worst performing districts, in contrast, met only around half of their targets, scoring 53 per cent.
- **Supported by strong political will, *Imihigo* are signed by the President, the local government leadership (the Mayor), as well as the ministers and CEOs of the governmental boards.**

This ensures that there is rigorous monitoring and that delivery challenges are quickly identified and generally addressed to the extent possible. *Imihigo* are reviewed on a quarterly, semi-annual and annual basis. In addition, multi-sectoral task teams, including security leaders, are formed within the district to ensure regular monitoring.

- ***Imihigo* have helped connect national to local planning, and helped ensure that local planning is based on citizens' needs and local development issues and potentialities.** Sectoral planning was previously disconnected or only slightly linked to local plans. Districts used their limited resource allocations, especially through MINALOC's Common Development Fund (CDF), which transformed into the Rwandan Local Development Support Fund (RLDSF) and currently LODA, while sector ministries continued to implement parallel projects with limited involvement of the local government. With implementation of *Imihigo*, however, incentives were created for the central government entities to work with and through local government structures. This and the step-by-step fiscal decentralization reforms provided incentives for sector ministries and agencies to actively participate in and engage with local government structures and untied public resources to flow through *Imihigo*. Not only has this helped increase the efficiency of the implementation of service delivery projects, but also the targeting of local development issues and priorities. An important factor is that *Imihigo* cascade downwards through all centres of responsible service delivery including the village coordinator. This ensures that all of the service delivery centres are bound together and failure to remove gaps in the performance are accounted for to some extent throughout the delivery system. As a result, *Imihigo* reviews have helped improve resource flows (e.g. less delays in fiscal transfers) to districts and stimulate performance across the service delivery system, including health units and schools.

- More recently, since the introduction of household *Imihigo*, stronger accountability bonds have been created between the local governments and citizens. This is very critical for achieving the *Imihigo* targets given that the performance responsibilities between service providers (the Government) and service users (citizens) are specified at each level of *Imihigo* setting and implementation. Citizens are now self-mobilized to deliver on their commitments; most targets that relate to standards of living and social cohesion depend entirely on their attitude and response. Citizens also participate in district *Imihigo* design to the extent that they are asked what their priorities are.
- *Imihigo* have spurred competitiveness among and within administrative entities (districts, sectors, cells, villages, households). To a considerable extent, *Imihigo* are now used as an instrument for monitoring leadership capacity and performance improvement.

Key issues for further improvements

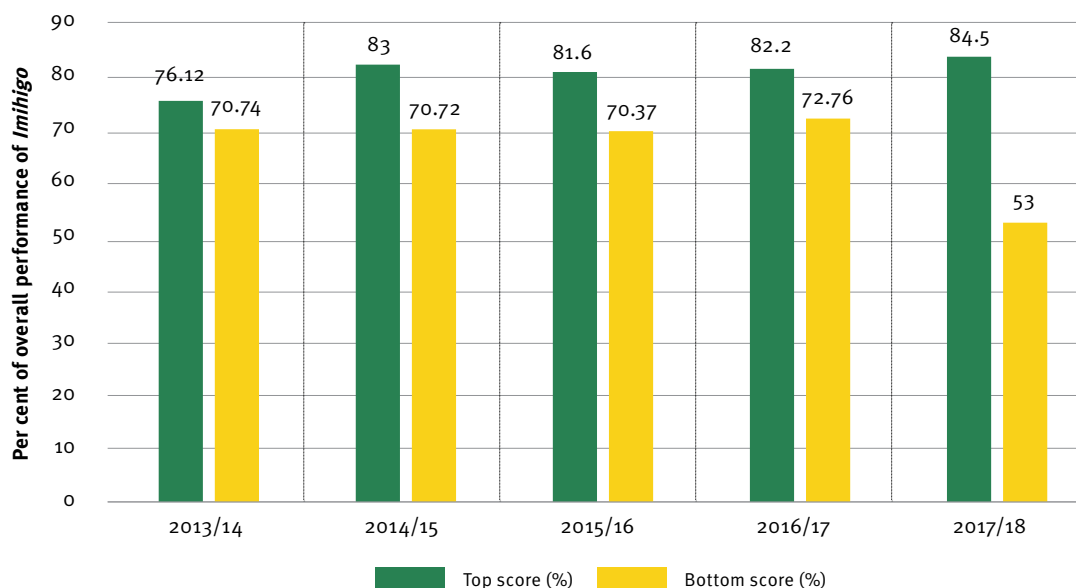
Considering Rwanda’s high ambition in the NST I to have a transformational governance system, including capable and responsible public institutions committed to citizens’ advancement and efficient service delivery,¹³⁵ the following issues are identified that could enhance the transformative potential of *Imihigo*:

1. **Increasing disparities between districts:** Overall performance has increased gradually over the years for the top performing districts, from 76.1 per cent in 2013/14 to 84.5 per cent in 2017/18 (Figure 3.31). It is important to note that the evaluation method to assess *Imihigo* changed in 2017/18 following the transfer of responsibilities to NISR. While the scores are not directly comparable over the years due to the change in approach and methodology, when looking at 2017/18 alone, the difference between the scores of the good and bad performers is striking. The performance of the worst-performing-district has been stagnant or declining

More recently, since the introduction of household *Imihigo*, stronger accountability bonds have been created between the local governments and citizens.

FIGURE 3.31

Performance trends of the best- and worst-performing districts in *Imihigo*



Source: RGB, *Imihigo* evaluation reports, various years.

A key issue of concern is the insufficient level of data reliability in *Imihigo*, with some targets often seeming to be exaggerated and reported results likely to be unrealistic.

(although the districts in these positions continue to change). A key concern here is the growing gap between the best- and worst-performing districts.

The difference between the best- and worst-performing districts has widened, from 5.4 per cent in 2014 to 31.5 per cent in 2018. In previous years, all districts generally performed within the same range, suggesting that competition might have been cut-throat. The performance in the top districts gradually improved, however, as performance at the bottom declined. This has significant implications for equitable development and calls for specific interventions to address the underlying causes of underperformance in some districts. In the 2017/18 *Imihigo*, all eight districts in the Southern Province scored lower than the average, suggesting a potential reason for the persistent concentration of poverty in the region. District resource allocations based on a multifactor formula considering poverty levels and other factors as well as bottom-up priority setting during the preparation of *Imihigo*, already allow for differentiated responses to the challenges experienced by every district. However, the widening performance divide between districts requires specific capacity building measures among other interventions targeting the persistently low performing districts. Among others, mutual learning and the identification of best practices conducive to consistently positive scores, are both potential interventions going in this direction.

A review of *Imihigo* evaluation reports indicates that one of the main factors for performance improvement or decline in a district is leadership. Districts where leadership is challenged were likely to achieve poor outcomes as opposed to districts whose leadership was considered strong. Districts where top leaders resigned (mayors, the entire executive) or where leadership was in conflict with their district councils, performed relatively low.

2. A weak link between output targets and outcome delivery: Despite the consistently good performance in *Imihigo* scores (cumulatively averaging

79 per cent for the best performing and 70 per cent for the worst performing districts over the last five years excluding 2017/18), there were some inconsistencies between *Imihigo* and development outcomes in the *Imihigo* priority areas. For example, *Imihigo*'s contribution to agricultural transformation were minimal, especially for smallholder farmers, even though *Imihigo* targets addressing smallholder productivity had been set in almost all districts. Table 3.17 shows that the uptake/use of agricultural inputs remains very weak, particularly among smallholder farmers. Based on Table 3.18, only one in three agricultural households received agricultural extension services. Without increasing access to agricultural extension services and use of modern agricultural inputs, substantial progress in agricultural productivity and improvement of standards of living among rural communities (a key target of EDPRS 2 and all district *Imihigo*), cannot be realized. It also implies that *Imihigo* targets for agricultural production and productivity were not being achieved, raising concerns about the alignment of planned activities, outputs and outcome-level results. Such concerns are being addressed by the Government through the implementation of the new scoring methodology oriented towards outcomes as well as by reinforcing the quality assurance process, ensuring that both MINECOFIN and MINALOC support the different districts during the *Imihigo* planning phase. This ensures the link between activities, outputs and outcomes are strengthened and that outputs deliver on outcome- or strategic-level results that are of significant importance to the transformation agenda.

A key issue of concern is the insufficient level of data reliability in *Imihigo*, with some targets and reported results likely to be unrealistic.¹³⁶ This corroborates some observations in a number of *Imihigo* evaluation reports, which pointed out incidences where outputs reported by some district officials were not

TABLE 3.15

Performance on key agricultural indicators/targets linked to district *Imihigo* (%)

<i>Imihigo</i> indicator linked to standards of living	Rwanda	Kigali City	North	East	West	South
Received agricultural extension services	29.6	9.3	33.6	26.9	31.6	31.4
Used inorganic fertilizers	31.6	19	33.9	23	48.5	27.6
Used improved seeds	23.9	15.8	30.7	22.1	29.2	17.8
Practised soil erosion control	65.7	62.2	77.3	49.5	72.6	69
Practised irrigation	10.1	10.3	5.3	7.3	9.1	17.2
Had a kitchen garden	44.5	33.6	47.2	47.2	45.3	40.6
Had a bank account	49.6	60.8	52.3	41.8	51	53
Requested an agricultural loan	4.7	2.1	5.4	4.2	6.5	3.9
Received funds for agriculture	5.7	1.7	2.1	5	4.4	10.7
Belong to agricultural cooperative or association	12.5	8.4	9.6	13.6	9.5	16.4

Source: NISR Agricultural Household Survey 2017 (AHS) (2018).

found on the ground. Inter-district competition, although not encouraged by the *Imihigo* strategy, rather than measurable progress may be providing incentives for this trend. This situation is reflected in outcome-level development indicators that are inconsistent with the *Imihigo* evaluation results, as shown above.

For instance, regarding the access to knowledge indicators (a key *Imihigo* target), all districts created *Imihigo* targets, which consisted in the enrolment and retention of 100 per cent of school-age children in school by investing in infrastructure, school feeding and mobilization to eliminate incidences of school dropout. An analysis of school attendance by children aged 6–10 living in agricultural households¹³⁷ shows impressive progress (Figure 3.32), although many districts still fall below their desired targets.

What emerges from Figure 3.32 is that districts have generally been effective in mobilizing and ensuring that school-age children are enrolled and stay in school (at least 87 per cent of the six-year olds in rural/agricultural households) and that *Imihigo* relating to the 9-YBE are being achieved), particularly in the districts of Gakenke, Muhanga and Kicukiro, where nearly all children aged

6–10 in agricultural households attend school. However, some districts still have low attendance levels, a situation that may affect the achievement of the SDG targets, and fulfilling the commitment of leaving no one behind, and the national transformation agenda of an educated and productive human resource. Figure 3 shows that in Gisagara and Nyaruguru, more than a quarter of the children aged 6–10 living in agricultural households are out of school. Other districts of concern are Bugesera, Rusizi, Nyagatare, Rubavu and Gatsibo, where one in five children aged 6–10 living in rural/agricultural households are not attending school. This provides useful information for the districts to learn about and improve their planning and prioritization.

A further analysis of the *Imihigo* scoring and the NHDI shows that there is no visible link between scores in *Imihigo* and a change in the NHDI (Figure 3.33). It should be noted that, for this analysis, the scores for 2017/18 are not included, because the evaluation methodology has changed, and it is not appropriate to merge the scores for 2017/18 with the previous years. Although the relationship is generally positive, it is

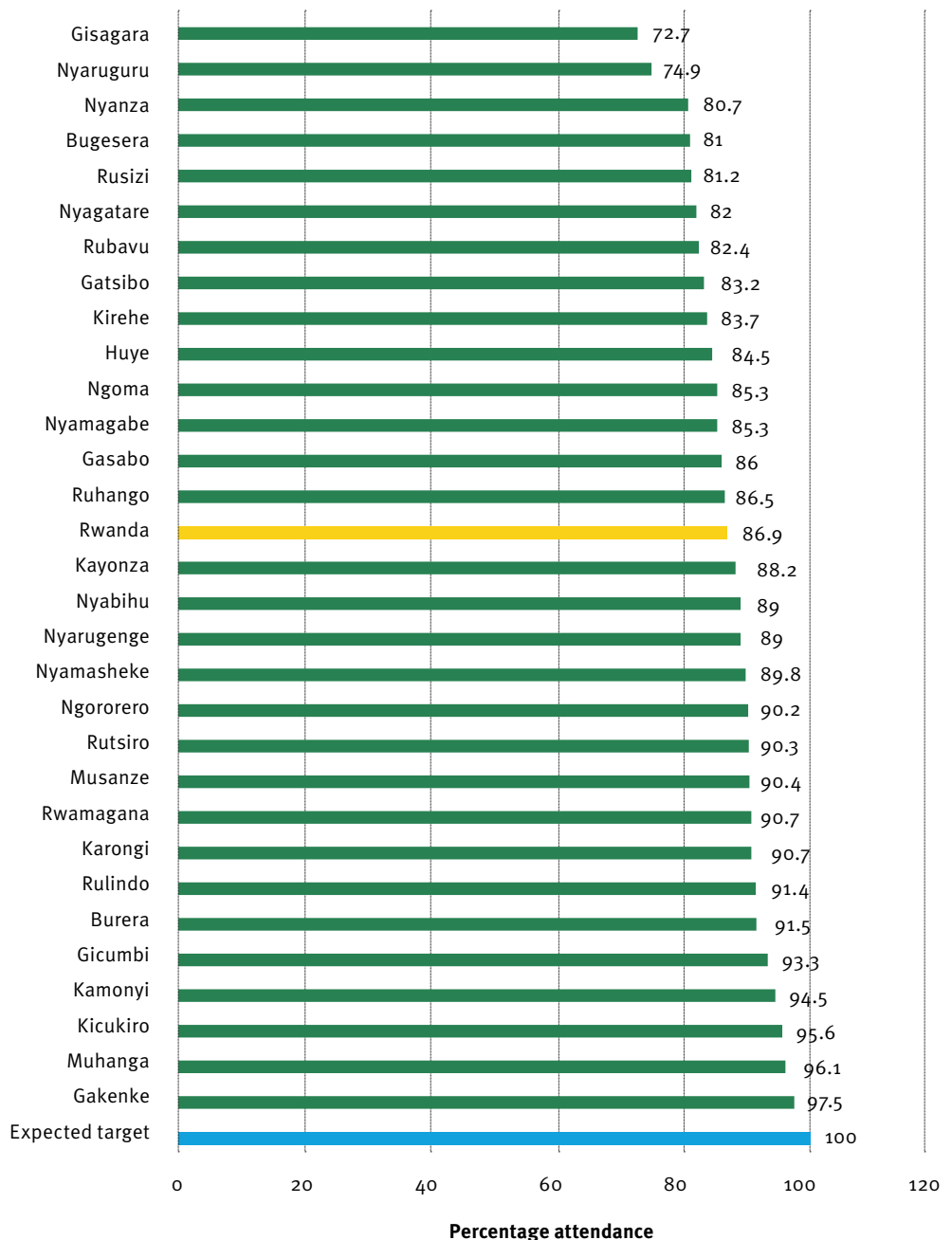
Districts have generally been effective in mobilizing and ensuring that school-age children are enrolled and stay in school.

not statistically significant, neither when it is linked with the change in the NHDI, nor with the NHDI values. Hence, it is difficult to state that *Imibigo* performance and the NHDI are statistically correlated. This analysis was carried out again for each of the three components of NHDI to determine if

Imibigo scores were in any way linked to the three dimensions of NHDI; however, limited linkage is observed and can be statistically proven. This could be due to the nature of *Imibigo* activities, which were largely output-oriented with less contribution to outcome-level indicators such as NHDI.

FIGURE 3.32

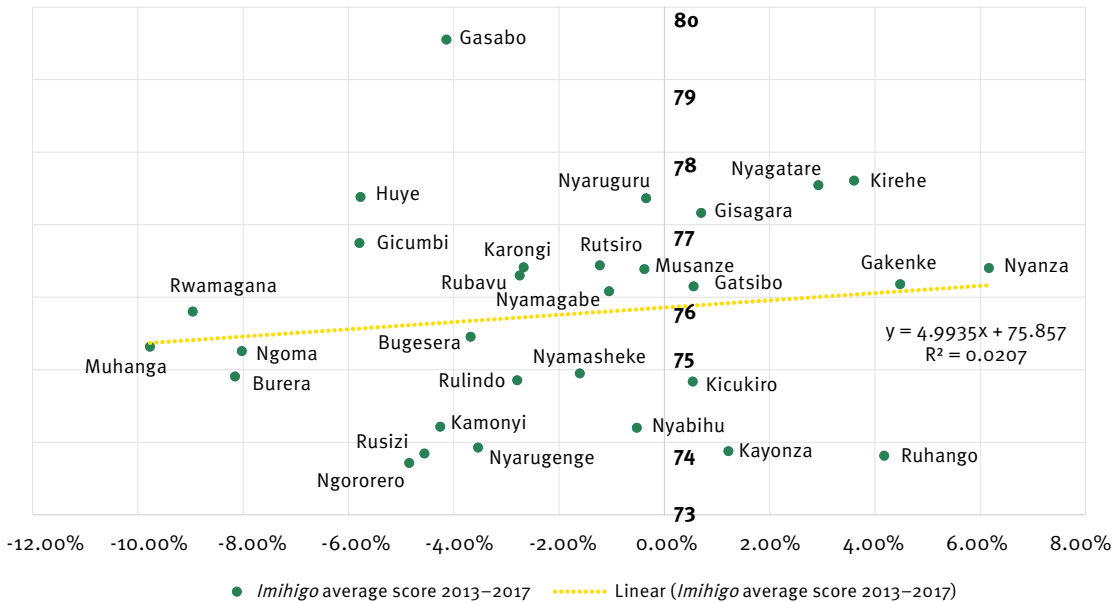
School attendance among children aged 6–10 living in agricultural households, by district



Source: NISR Agricultural Household Survey, 2017 (2018).

FIGURE 3.33

HDI percentage change (EICV 4 and 5) and *Imihigo* performance scores in percentage changes, 2012/2013 – 2016/2017



Source: *Imihigo* evaluations, various years and authors' calculation for NHDl.

A district-by-district comparison of *Imihigo* scores with NHDl value again indicates a limited linkage between these two variables. To allow to undertake this analysis, the authors identified districts that perform constantly above or under average in the *Imihigo* score. These districts' NHDl value is then assessed if it is in alignment with the *Imihigo* scoring. From 2012/2013 to 2017/18, districts such as Ruhango and Nyabihu appear in the list of ten worst performers four out of the last five years, and Karongi, Rulindo, Rubavu and Rutsiro, in three out of the last five years. In contrast, in the top ten performers' list, Gasabo and Huye have shown the best performance in four out of the last five years, and Kicukiro, Gicumbi and Nyanza, in three out of the last five years. When analysing the best and worst *Imihigo* performers against NHDl, districts that scored consistently above average in *Imihigo* such as Gasabo and Kicukiro show high NHDl levels, whereas poor performers such as Nyabihu, Rulindo and Rutsiro have low NHDl levels, compared to the national average. While this seems like a positive relationship, there are, however, opposite cases, such as

Ruhango district, which consistently had high NHDl values despite poor performance in *Imihigo*. Thus, the relationship between *Imihigo* scores and the HDI is not clearcut.

Districts are granted flexibility to include indicators and targets related to their specific needs and potentialities. However, a significant number of indicators and targets are generic across all districts. Given the wide differences in socio-economic situation, and demographic and infrastructural issues, as attested in the Rwanda's multi-dimensional poverty analysis (Table 3.16), an increased share of district specific indicators and targets will play a key role in further stirring local level conversations around the district-specific issues, the lessons learned in addressing them and the determination of the way forward.

For instance, deprivation in years of schooling is the main contributor to multi-dimensional poverty across Rwanda. In fact, deprivation in this indicator is much higher in the Eastern Province (24.3 per cent) and Western (23.7 per cent) and Southern Provinces (23.2 per cent) than in Kigali City (8.8 per cent). Similarly, the Southern

Deprivation in years of schooling is the main contributor to multi-dimensional poverty across Rwanda.

TABLE 3.16

Proportion of people who are MPI poor and deprived in each indicator, by province

Dimension	Indicator	Province				
		Kigali City	Southern	Western	Northern	Eastern
Education	School attendance	3.5	6.9	6.6	3.3	8.2
	Years of schooling	8.8	23.2	23.7	15.6	24.3
Housing	Electricity	7.2	9	10	6.7	7.1
	Floor	11.5	34.8	30.1	22.6	31.1
	Overcrowding	4.6	11.5	9.7	5.5	10.3
	Cooking fuel	13.3	36	30.8	22.9	32.2
Public services	Drinking water	10.1	27.4	20.5	16.5	26.8
	Sanitation	3.6	17.1	7.5	7.8	7.1
	Garbage disposal	10.8	28.2	21.6	18.3	19.8
Social services and economic activity	Assets for communication	4.9	19.8	16.2	12.6	15.5
	Bank account	6.7	14.2	13.3	6.8	11.5
	Health insurance	8.7	22.3	18.3	10.6	19.1
	Distance to healthcare facilities	0.6	9.6	7.9	4	11.4
	Subsistence farming	1.2	16.9	11.2	11.5	16

Source: NISR (2018c). The Second Rwanda Multi-dimensional Poverty Report.

Different regions face different deprivations and therefore should prioritize different interventions to address poverty and deprivation during planning and budgeting.

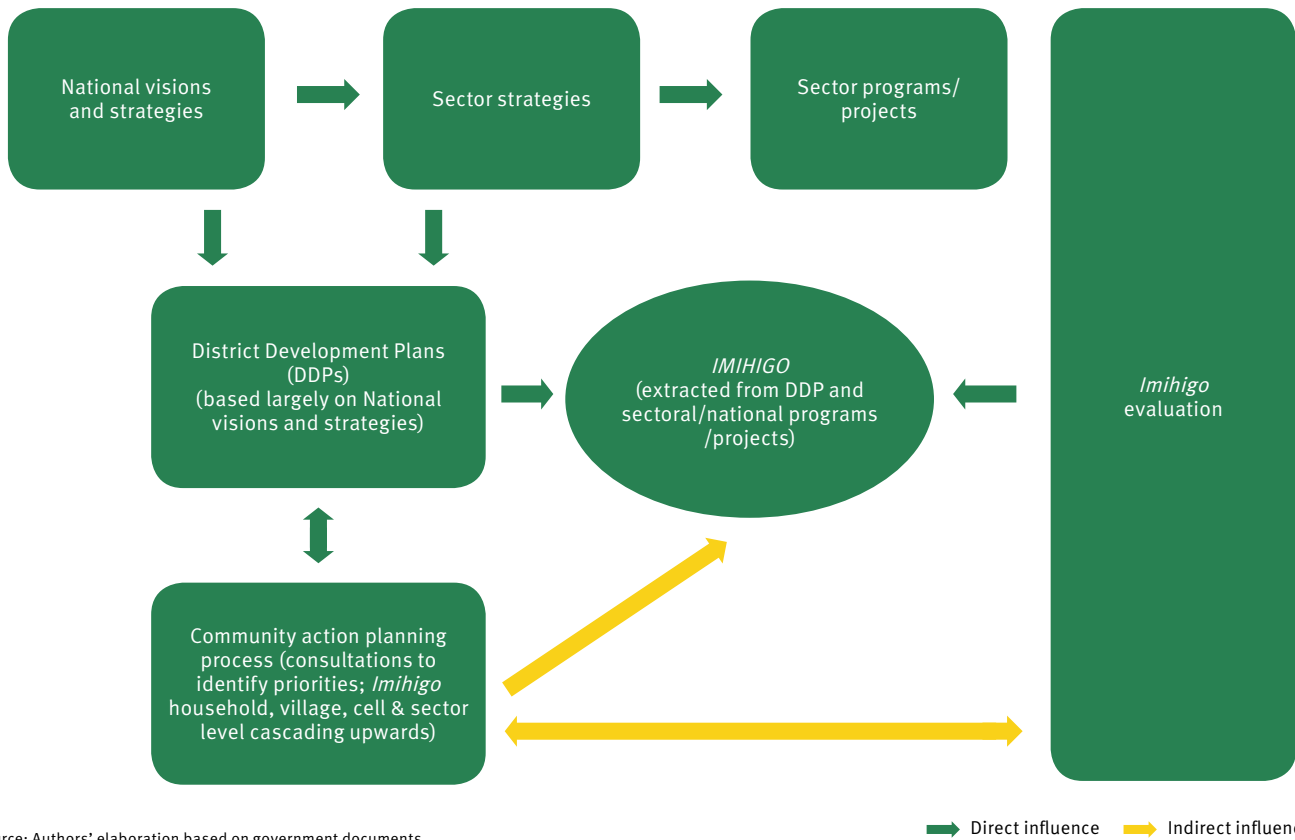
and Eastern Provinces have much higher deprivations in subsistence farming (16.9 per cent and 16 per cent, respectively) than the Northern and Western Provinces (11.5 per cent and 11.2 per cent, respectively) and much higher than in Kigali City (1.2 per cent). The deprivation in cooking fuel (which increased during the EICV 3–5 period) is significantly higher in the Southern (36 per cent), Eastern (32.2 per cent) and Western (30.8 per cent) Provinces, as compared to the Northern Province (22.9 per cent) and Kigali City (13.3 per cent). The main message here is that different regions face different deprivations and therefore should prioritize different interventions to address poverty and deprivation during planning and budgeting.

Assessment of Rwanda’s planning frameworks clearly attests to the solid progress made to make planning respond to needs of the people and that it is aligned to priorities

at national, sectoral and local levels. Figure 3.34 illustrates the planning framework in which Imihigo priorities are set. The yellow linkages in Figure 3.34 between community level and Imihigo setting and evaluation illustrate the citizen centred development approach and the ultimate governing relationship between bottom-up and top-down convergence. It also shows the existing accountability system particularly by taking into consideration the needs and views of the people in the evaluation of Imihigo. Although participatory bottom-up planning activities help identify citizen’s priority needs through administrative structures from village up to the sector level, the extent to which these activities are financed depend on resource envelop at local level. According to the 6th issue of the Rwanda Governance score card published in 2019, the percentage of citizen satisfaction in Imihigo planning is 63.9%, while the percentage of citizen participation in

FIGURE 3.34

Imihigo Planning Framework



Source: Authors' elaboration based on government documents.

the elaboration of Districts budget and plans is at 53.6%. This means the participation of citizen in Imihigo and overall budgeting and planning processes remain low. The underlying reason for such performance needs to be explored and solutions must be sought.

Low local revenue collection capacities have remained key challenge for many districts. Even if districts have identified specific challenges pertinent to their own condition and wish to implement innovative solutions using the local resources, their capacity is significantly constrained due to low levels of local revenue. Over time, this could undermine the local innovations' content that underlie the principle of Imihigo. As shown in Figure 3.35, the bulk of the local government budget is funded through inter-governmental transfers, which are largely conditional (or earmarked). Much as the devolved functions still support district socio-economic development

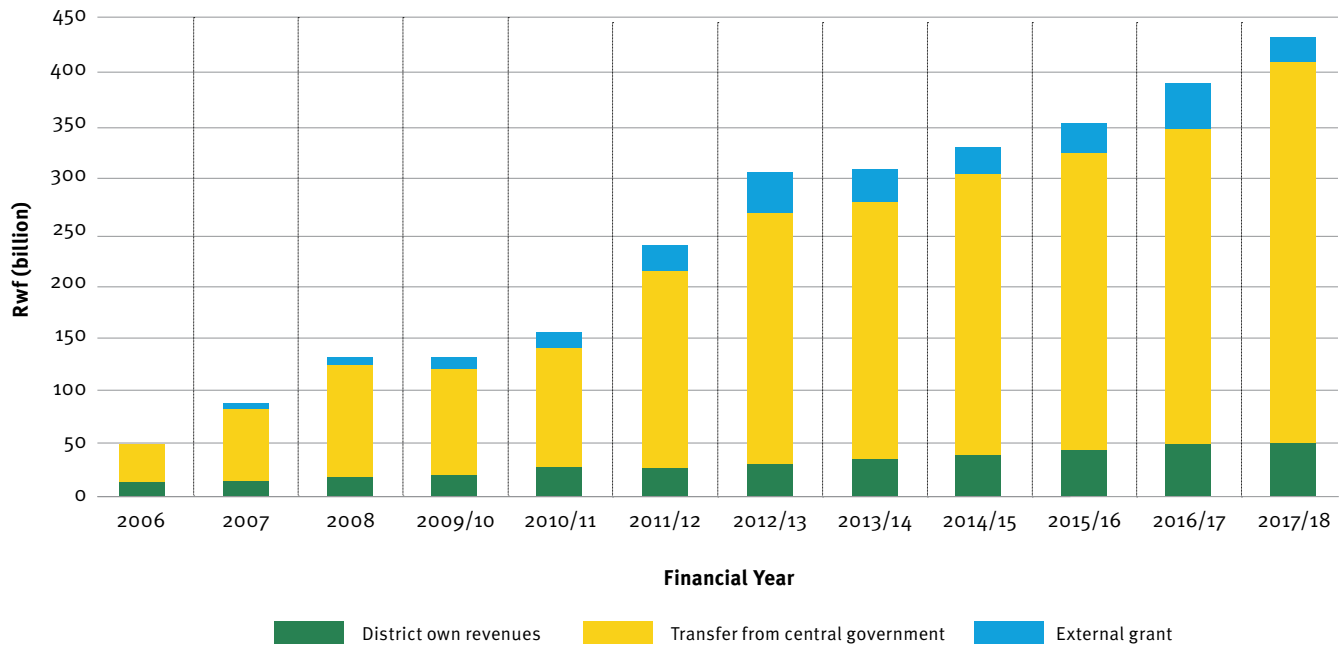
under different sectors, limited district own revenues could undermine community driven development and the local innovations' content that underlie the principles of Imihigo.

A review of district Imihigo indicates that most of the targets are funded by sectoral ministries and agencies, either through projects or ministerial development budgets. This is because the bulk of devolved funds is earmarked from central government. While it is notable that fiscal transfers to districts have increased exponentially over the last decade, from Rwf52.1 billion in 2007 to Rwf365 billion in 2017/18, only a small proportion, around Rwf52 billion (14.3 per cent), constitutes block grants and only 17% constitute the proportion of own revenue to overall district budget. Much of this transfer to local governments, however, is spend on recurrent activities.

While it is notable that fiscal transfers to districts have increased exponentially over the last decade, only a small proportion, constitutes block grants over which local governments have discretion to spend.

FIGURE 3.35

Rwanda local government funding, by source



Source: Ministry of Finance and Economic Planning Records (June 2017).

The CSO is insufficiently involved, particularly in the accountability loop, yet it is key for the implementation of many *Imihigo* activities.

Small share of block grants combined with low revenue generation limits District’s ability to achieve transformative results. According to the Rwanda Governance Score card (RGS) 2019, Local Government Budget as percentage of the national budget stands at 15.2% which puts the RGS scores at 50.7%, one of the lowest scores, calling for increased attention towards budget allocation to local governments. Moreover, the financial support provided by development partners and the private sector to local governments had been decreasing or has been small over the years keeping the districts funding scheme less diversified. Efforts to increase district own revenue generation capacities such as through the new property tax law are timely but also increased efforts to mobilize the contribution of the private sector, faith-based organizations and the civil society could improve the district revenue basis and accelerate development particularly socio-economic development.

Some of the key challenges identified in the implementation of *Imihigo* are as follows:

1. Need to maximize the effectiveness of the existing M&E framework at local level: While major strides have been made in *Imihigo* processes related to target setting, weighting and evaluation methods, including the recently introduced approach for assessment, many *Imihigo* targets and indicators are not well formulated posing measurement challenges while others are still more of output based. Similarly, the existing frameworks for monitoring progress at local level are still weak. MINECOFIN jointly with MINALOC provided technical and strategic support, however, capacity at local level remain low. Internal evaluation and discussions to draw lessons learned by intra-district stakeholders are limited and informal, with limited documentation. Greater efforts for M&E rely on external evaluation, which awards scores and ranks districts’ performance, and much less is allocated to internal self-assessment and reflective learning.

Self-assessment and reflective learning would build system-wide capacity, facilitate learning through participatory evaluation and proper knowledge management, as well as create incentives for gradual and sustainable improvement.

2. Stakeholder participation – full stakeholder participation has significant potential, yet it is not fully harnessed. Under the joint Imihigo Framework, sector ministries, districts should work with CSOs and private sector to deliver on agreed Imihigo targets led by the lead Ministry for the relevant Joint Imihigo cluster. While the joint Imihigo approach has taken multi-stakeholder engagement in the right direction, there is weak involvement of the civil society in monitoring and evaluation of the Imihigo. The civil society is an important accountability and oversight entity which in many cases present from the national to the local level. While their contribution through the joint action development forum could be noted, their involvement in monitoring and reporting on the implementation of the Imihigo to continuously advocate for the citizen's needs is yet to be fully realized. According to the CSOs development barometer 2018, CSOs participation scored overall 67.7% and the impact and effectiveness of CSOs 64.7%. These scores indicate the need for a more vibrant civil society consistently participating from planning to implementation, monitoring and evaluation. Similarly, while Districts are encouraged to work with the private sector in delivering key results, such as in job creation, increasing export etc; their contribution to Imihigo targets is minimal. Based on the qualitative interviews, district officials noted that there are limitations in getting private sector to fully engage in Imihigo implementation. This is partly due to insufficient capacity and partly due to gaps in the institutional framework. At local level, for instance, local authorities' partners with the private sector to establish projects that support lo-

cal development either on their own or as co-investors with the local government in the district that are aimed at creating more jobs. Such kind of interventions are usually included in Imihigo targets, yet, the contribution of projects that are fully implemented or controlled by private entrepreneurs is generally beyond the control of the local governments, as well as the failure of the private sector to execute the projects (e.g. hotel) affects district performance. In the external evaluation reports reviewed, districts cited the inability of private enterprises to deliver on their Imihigo commitments as a key factor for delayed implementation or execution. This failure to deliver on their targets limits the districts' capacity and willingness to mobilize the private sector and is a source of under-performance where private sector-led projects are included in districts' Imihigo targets. This is an issue of concern because there are no specific incentives for the private sector or specific sanctioning measures should they fail to deliver, particularly where they are fully funding the project or project component. This means the follow up during implementation to ensure each player delivers on their role needs to be strengthened if the anticipated outcomes of the joint Imihigo are to be achieved.

Conclusion:

Delivering transformational results and leadership accountability remain the central tenets of Imihigo. Rwanda has succeeded in establishing Imihigo as a performance management and leadership accountability mechanism, especially at the local government level, to the extent that leaders and technocrats plan, implement and are evaluated based on their set targets. Imihigo have improved attitudes towards public service delivery and accountability as well as related systems and practices. Personnel and leaders are evaluated on their results, and citizens are more responsive because they acquire ownership of the districts Imihigo.

Imihigo have, in particular, improved attitudes towards public service delivery, as well as related systems and practices.

Human development for many poor communities is undermined by multiple shocks, vulnerabilities and risks.

However, innovations require a conducive ecosystem. While there are capacity and other institutional challenges that constrain the planning and implementation of Imihigo targets, a key observation is that the Imihigo will not achieve its full potential if its link with local priorities is not strengthened. The space for innovation should be created to allow community and local leaders to achieve their aspirations while ensuring compatibility with the national agenda. Also, it is important that priority setting be closely linked with strategic-level results and the resource envelope. Local leaders are currently evaluated, and the evaluation outcomes determine their security of tenure and shape the perceptions of citizens about them.

A key finding from the qualitative assessments and review of Imihigo evaluations planning frameworks is that Imihigo should aspire not only as a performance management tool at all levels, but also as an important driver of local transformation through enhancing innovations. Following the adoption of a transformative approach to national development in Rwanda through the National Strategy for Development, the Imihigo process as well should embrace this approach to ensure that Imihigo targets contribute to local and national transformation. To adequately impact on the well-being of the people of Rwanda and contribute to the “Rwanda We Want” ambitions, Imihigo target could be upgraded to move from ordinary routine activities to strategic outcome targets that provide evidence of socio-economic transformation. There is a high degree of standardization and near homogeneity of district Imihigo despite the diversity of the districts and the local development challenges. In order to further maximise benefits from Imihigo, it is important that priority setting be closely linked with strategic-level results and the resource envelope whilst promoting innovation and customization of activities at district levels. In addition, follow-up capacity development is key to further enhance delivery of results.

Way forward:

Imihigo as a central tool for effective service delivery and accountability, it can serve the national and local agenda in an innovative way if the above-mentioned concerns are addressed at a minimum by taking the following key points into considerations:

1. Enhance domestic resource mobilisation by local authorities to address swiftly their local needs. While increasing the total resources allocated to districts is important, it is more important to ensure flexibility in the use of resources. In this respect, local governments should be encouraged to mobilise and allocate funds to Imihigo activities that enhance accountability and promote local innovation. This could be achieved by building the local domestic resource mobilization capacity of districts remains critical in order to increase the level of resources to fund local initiatives. It is also important to increase the block grants, while coming up with other innovative solutions. For instance, incentives could be created for local government to tap into, such as a local innovations challenge fund to encourage innovation investment by local government entities. The key aspect of enhancing the planning framework for Imihigo would entail putting more emphasis on the local government setting Imihigo targets that are consistent with the national transformative agenda. For instance, the EDPRS 2 had set increasing access to rural/agricultural Finance as a key target for rural transformation. Indeed, findings from the agricultural household survey (AHS 2017) reveal that nearly all (96.3 per cent) of the agricultural loan Requests, were approved; the problem, however, is that demand for agriculture credit is low (only 4.7 per cent). Yet, transformational results such as increasing the demand for, access to and use of agricultural credit is not adequately met.

This means the broad objective ensuring access to finance to rural household, promotion of savings in a sustainable manner could have been achieved if holistic approach that puts the result in sight is followed in such multi- sectors priority setting. Therefore, enhanced coordination is key and should further be pursued through the established joint delivery mechanism e.g. under Agriculture Joint Imihigo.

2. Enhance strategic-level dialogue by focusing on the outcome-indicators of Imihigo: An over-reliance on scores and output-level delivery, especially when they are not aligned to the outcome-level national priorities, may divert the focus from strategic debate and consensus to address major national and local challenges. The revised methodology provides a welcome shift away from the output level and strengthens the focus on the outcome level. This will help foster strategic-level dialogue and ensure

coherence between the local-and national-level priorities. While discussions on how to improve performance take place, strategic issues that cut across various local entities should be Identified and integrated in appropriate for a to inform national and regional action.

3. Put in place mechanisms to enhance private sector participation and leverage its innovative potential to contribute more effectively to Imihigo processes and outcomes. Greater involvement of local and other private sector actors early in the process of conceptual design of Imihigo, the implementation, monitoring and evaluation ensures that they contribute ideas, expertise and resources and helps secure their commitment to and ownership of the Imihigo. This is particularly important given the fact that private sector players are key partners in the development process.

Savings and loans are critical coping measures against risks, especially those related to illnesses and associated medical expenses, unforeseen school expenses and burial expenses.

3.4.2 Effective strengthening of resilience to climate change and environmental sustainability

Human development for many poor communities is undermined by multiple shocks, vulnerabilities and risks.¹³⁹

Understanding the contribution of HGSs to building resilience against social and economic risks requires understanding the shocks or risks that Rwandans face. The main shocks identified by adult Rwandans in a 2016 Finscope Survey by Access to Finance Rwanda (AFR) are related to: health risks that require medical expenses; an unexpected rise in the price of goods due to inflation; and agricultural losses mostly due to climate change. It is worth noting that illnesses affect urban and rural people almost equally, yet urban people are more affected by the risk of inflation (84 per cent in Kigali City), while rural people (the Eastern Province, 70 per cent; Northern Province, 69 per cent; and Southern Provinces, 71 per cent) are more affected by agricultural failure and losses. Further analysis

(in Table 3.17) reveals, however, that most citizens have limited coping ability.

Table 3.17 shows that most citizens cut down on expenditures in response to a rise in prices (58 per cent), loss of livestock or agricultural production (35 per cent) and loss of income (35–34 per cent). The use of savings and loans is the preferred option only in case of death of a relative or illness. A consistently high percentage of respondents declared doing nothing or being unable to cope with the different risks.

As demonstrated in the earlier chapters, CBHI has played a key role in offsetting risks associated with catastrophic spending and may explain why only 17 per cent would sell an asset to raise money. With the rising risk of agricultural failure and loss of assets such as houses due to the effects of climate change, it would be critical to consider insurance against risks. Nonetheless, savings and loans are critical coping measures against risks, especially those related to illnesses and associated medical expenses, unforeseen school

TABLE 3.17**Coping measures by adult Rwandans in 2016 (%)**

Shocks/risks or hardships	Coping mechanisms used					
	Cut down expenses	Used savings	Used loans	Claimed insurance	Sold something to get money	Did nothing
Rise in prices of goods and services	58	12	5	0	5	20
Illnesses within the household or family that incurs medical expenses	4	30	21	17	17	10
Loss of livestock, agriculture or own business	35	9	6	0	5	44
Loss of income due to an unexpected drop in the price of produce/harvest	33	11	10	0	7	39
Unforeseen school expenses	6	26	32	0	17	18
Loss of the income of an income earner of the household	34	15	9	0	6	34
Death of a household or family member resulting in unexpected costs	0	30	26	0	0	18
Subsistence farming	1.2	16.9	11.2	11.5	16	16

Source: AFR, Financial Inclusion in Rwanda (2016).

Rwanda has demonstrated leadership in committing to the realization of the Agenda 2030, building on the outstanding performance in the achievement of the Millennium Development Goals.

expenses and burial expenses. Hence, having a savings account and keeping it active through saving and/or borrowing is an instrument of resilience to such socio-economic shocks. Field-level observation provides sufficient justification to believe that HGSs have contributed to addressing some of the underlying reasons for vulnerability of households in rural areas. For example, Girinka has demonstrated potential to enhance production and sustainably manage the natural resources (Table 3.18 and 3.19), even though its coverage is still limited. Three key areas where Girinka has potential to provide innovative solutions for Rwanda's emerging (and in some respects escalating) environmental and climate change challenges are: clean and affordable energy for households and institutional users; organic manure to offset the demand for expensive and environmentally unfriendly industrial fertilizers. Rural households' needs for affordable clean energy could be met through biogas technologies, which would reduce the

pressure on biomass resources. However, coverage is still low. During 2017/18, just over 102 poor households in the Southern Province benefited from energy-saving stoves constructed through Umuganda. This has not only contributed to the energy security of households, but also to protection of the environment since less biomass is used.

Evidently, as shown in Chapter 3, section 3.1, all three household-level HGSs, i.e. Girinka, CBHI and VUP, are positively related to opening a savings account with an increasing likelihood of household saving. Hence, scaling up coverage of HGSs could eventually help to enhance households' coping mechanism for shocks and thereby protect gains in human development.

3.5 The potential of home-grown solutions to accelerate progress towards achieving the Sustainable Development Goals

The SDGs are strongly anchored in promoting human development and inclusive growth, integrating strong elements of equity, gender equality, climate resilience, peace and development as well as social cohesion. SDGs 1 to 4 directly relate to the three core dimensions of human development, namely, income and decent standards of living, long and healthy lives, and access to knowledge. In contrast, SDGs 5, 6, 7, 8, 9, 10, 11, 13, and 16 relate more closely to the enabling environment for human development, including equality, resilience, social cohesion and sustainability.

Rwanda has demonstrated leadership in committing to the realization of the Agenda 2030, building on the outstanding performance in the achievement of the Millennium Development Goals (MDGs). Alignment of NST I to the SDGs, adoption of a clear green growth strategy with an already operational GDF, universal healthcare, and accountable and citizen-centred service delivery framework are some of the promising inclusive development strategies that demonstrate leadership towards achieving the SDGs.

HGSs play a critical role in accelerating Rwanda’s achievement towards the SDGs. HGSs focus on targeting the poorest of the poor is essentially aligned with the *leave no one behind* principle of Agenda 2030. The current targeting systems at the household level offer enormous opportunity for enhanced programming to address household-level vulnerabilities in accordance with Agenda 2030.

TABLE 3.18

Rainwater and/or run-off water trenches and reservoirs

Province	No. of rainwater and/or runoff water trenches and reservoirs constructed
Kigali City	359
Southern	152
Northern	17 506
Eastern	73
Western	11 863
Total Rwanda	29 953

Source: MINALOC, *Umuganda* Annual Report to the Office of the Prime Minister, 2018.

TABLE 3.19



Agroforestry trees planted under *Umuganda* to control soil erosion

Province	Agro-forestry trees planted
Kigali City	101 650
Southern	673 360
Northern	1 672 948
Eastern	507 209
Western	265 814
Total Rwanda	3 220 981


























Source: MINALOC, *Umuganda* Annual Report to the Office of the Prime Minister, 2018.

TABLE 3.20

The potential contribution of home-grown solutions to achieving the Sustainable Development Goals in Rwanda

Home-grown solutions (HGSs)	Associated Sustainable Development Goals (SDGs)	Linkage between HGSs and the SDGs
<i>Girinka</i>		<ul style="list-style-type: none"> • Since its inception, Girinka has improved the well-being of its nearly 300,000 beneficiary households and their neighbours by increasing agriculture production and food security, as well as improving nutrition through the provision of manure and milk. It has significant potential to scale up and further improve food security, consumption and income of households. Through its income-enhancing impact, it enables households to spend their income on health and other essential services such as education. Over the long term, it has potential to address inequality in all its forms and to reduce vulnerability. • Girinka has provided start-up support for the rural poor to become commercial farmers as well as economic assets that can support diversified income sources. It has also contributed to milk and crop value chains in which the poor are potentially active beneficiaries. It has therefore contributed to the reduction in poverty and inequality among Rwandans. It has enormous potential to involve youth in the value chain if collaborative partnerships can be forged in the years leading to 2030. • Girinka has the potential to increase access to clean energy through biogas, as well as to reduce pollution by substituting demand for chemical fertilizers with organic manure from cow dung. This, however, is currently at a low scale due to limited uptake of biogas technology. • Girinka through its local participatory approach has a strengthened impact in empowering the poor.
Community-based health insurance (CBHI)		<ul style="list-style-type: none"> • CBHI has eliminated the risks of catastrophic out-of-pocket spending and protected the assets of the poor by guaranteeing affordable healthcare, thereby reducing morbidity and mortality. It has enormous potential to keep Rwandans healthy and could even be expanded to all the population and contribute to fulfilling the ‘leave no one behind’ pledge. • It also contributed to enhanced labour productivity and increased access to clean water and sanitation. It has also enabled the rural poor to send their children to school and keep them there by saving families from catastrophic spending on healthcare, allowing the resources to be used for school materials. It has also motivated the poor to come together and save in order to invest in income-generating activities. This contribution could be exploited for strengthening the link between education and health by looking into coverage for youth. • By providing the poor with affordable healthcare, CBHI has reduced inequalities, social vulnerabilities and incidences of conflict and social discontent, and has promoted social cohesion. It has enormous potential that can be further exploited in the years leading to 2030.

The potential contribution of home-grown solutions to achieving the Sustainable Development Goals in Rwanda

Home-grown solutions (HGSs)	Associated Sustainable Development Goals (SDGs)	Linkage between HGSs and the SDGs
<i>Umuganda</i>	      	<ul style="list-style-type: none"> • <i>Umuganda</i> has constructed sanitation facilities for poor people, especially in rural areas. In some areas, water supply systems have been established. <i>Umuganda</i> has also served as a platform for improving hygiene at the household and community levels. <i>Umuganda's</i> contribution to improving the overall infrastructure can be more systematically capitalized on in bridging the infrastructure gap in the years. • <i>Umuganda</i> has helped the poor to access energy-saving cooking stoves through awareness-raising and information campaigns. These stoves have reduced the exposure of poor women and children to in-door pollution and has empowered rural communities to solve their local infrastructure and other development problems. This program has great potential to support environmental management, expand access to renewable energy and address the main challenge of access to clean energy in Rwanda. • <i>Umuganda</i> has helped expand access to and quality of learning outcomes for children in poor households/communities by constructing school classrooms and sanitation facilities under the 9-YBE program. More than 3,170 classrooms were constructed during the 2006–2017 period. The monetary value of the <i>Umuganda</i> contribution in community infrastructure is estimated by the Government of Rwanda to have increased from Rwf4,112 billion in 2008 to Rwf21,801 billion in 2017/18.140
VUP	        	<ul style="list-style-type: none"> • VUP can increase the value of labour, especially among the rural poor, because it provides better earnings opportunities while improving rural infrastructure, thereby contributing to decent work and economic growth. This potential is currently not fully exploited, and by redesigning of the program, there would be enormous potential for linking the environment, climate change and VUP. • VUP-DS has helped to reduce poverty and inequality. It also indirectly contributed to food security. Its full potential can be harnessed by scaling up the program to cover both the income and the multidimensional poor. • VUP has also contributed positively to social cohesion and peaceful co-existence. If effectively used, it could contribute more by ensuring that those who are extremely poor are brought into the social protection net, which would enable them to lead productive and health lives.
<i>Imihigo</i>	        	<ul style="list-style-type: none"> • <i>Imihigo</i> has enabled the Government to create jobs and enhance efficiency of, and effectiveness and accountability in, public spending for job creation. Over the last five years of EDPRS 2 implementation, each of the 30 districts has set targets for decent jobs to be created and mobilized resources to this end. This has significantly contributed to and is credited for service delivery, in particular education, health, water and sanitation, as well as environmental management and sustainability. This cross-cutting program could be harnessed to deliver on enhancing social service delivery, address poverty and inequality, and ensure the full participation of the community.

Indeed, each of the five HGSs covered in this Report are directly linked to the SDGs, as reflected in the previous sections. The most visible or demonstrable contribution towards individual SDGs is highlighted in Table 3.20.

3.6 Summary

Following the earlier chapter, which examined the broad trends in human development in Rwanda, this chapter discusses the role of HGSs within the broader policy space. HGSs were a unique and innovative response to a daunting challenge that Rwanda faced after the 1994 Genocide against the Tutsi. Most of the HGSs developed locally have been institutionalized and scaled up at the national level since 2006. Due to the limited scope of this Report, only five HGSs were selected for analysis, namely *Girinka*, CBHI, VUP, *Umuganda* and *Imihigo*. These specific HGSs were identified due to the specific focus of their objectives on human development outcomes. These HGSs have undergone several changes during their implementation over the last decade. The continuous learning and adaptation to changes are the unique and innovative characteristics of these policy instruments.

In addition to documenting the changes that the Government of Rwanda and communities have been introducing over time, this chapter assessed the relationships between Rwanda's HGSs and various indicators and indices for human development. Overall, the findings were encouraging, providing evidence of positive associations between CBHI, *Girinka* and VUP, and human development indicators. In particular, CBHI and *Girinka* were linked to all three dimensions of the HDI, while VUP showed slightly mixed results. In addition, there was some evidence of a positive association between

HGSs and the NHDI. There is, however, an observable variation between districts in terms of the spatial distribution of both HGSs and human development indicators. Table 3.21 summarizes the relationships between each HGSs and human development dimensions, NHDI and implications related to spatial and population targeting/coverage.

Analyses of EICV 4 and 5 data further confirm that disparities between urban and rural households, particularly with the concentration of higher human development in Kigali City districts, and inequalities between male- and female-headed households continue to hinder human development in Rwanda. With focused targeting and scale of coverage, it is possible that HGSs policies reduced to some degree the burden on rural and female-headed households, bolstering the living conditions while increasing overall human development in Rwanda. Using qualitative assessment tools, it was possible to ascertain that HGSs have positively contributed to social cohesion and resilient human development.

Finally, notwithstanding the above positive contribution, there is a need to strengthen the monitoring and evaluation of the HGSs policies. EICVs contain a wealth of information, but since they are not specifically targeted towards understanding the impact of HGSs on human development, data remain a challenge in carrying out a comprehensive assessment of these programs. It is strongly recommended that quantitative policy impact evaluations be commissioned, which would require policy-specific data collection from beneficiaries of each policy and those receiving overlapping benefits. For cost-effectiveness, this kind of exercise can be annexed as part of the census or the EICV data collection process.

Analyses of data further confirm that disparities between urban and rural households, particularly with the concentration of higher human development in Kigali City districts, and inequalities between male- and female-headed households continue to hinder human development in Rwanda.

TABLE 3.21

Summary of the relationship between HGSs and human development

HGSs	Human development indicators (for three dimensions)	National Human Development Index	Observations on spatial and population targeting/coverage
Community-based health insurance (CBHI)	There is evidence of encouraging, positive relationships between CBHI and all three dimensions of human development indicators.	There is evidence of a positive association between the National Human Development Index (NHDI) and CBHI.	Enrolment and retention for the bottom 40 per cent and the most vulnerable populations are necessary if the full potential of CBHI was to be realized for enhanced human development outcomes.
<i>Girinka</i>	There is evidence of encouraging positive relationships between <i>Girinka</i> and all three dimensions, particularly for the bottom 40 per cent of the population.	A positive relationship is observed but not significant, which might be due to its scope and coverage.	Although <i>Girinka</i> is reaching key, low-consumption populations (notwithstanding eligibility requirements), policy-specific data collection is necessary to ascertain its targeting.
Vision 2020 Umurenge Program (VUP)	<p>There is evidence of encouraging, positive associations for VUP-Direct Support (DS) and VUP-Financial Services (FS) with the Standard of Living dimension; VUP-Public Works (PW) was negatively related to standard of living indicators.</p> <p>VUP-PW and VUP-FS demonstrated positive relationships with household educational achievement, whereas VUP-DS was associated with a significant negative correlation.</p> <p>VUP-DS and VUP-FS had an insignificant negative relationship with health expenditures, controlling for recent medical consultations and health insurance through CBHI. VUP-PW, in contrast, was associated with an insignificant increase in health expenditures.</p>	There is strong evidence of an association of both VUP-DS and VUP-PW with the National Human Development Index (NHDI). There was no statistically significant relationship between VUP-FS and NHDI.	VUP generally needs to be assessed in terms of its targeting with a focus on both components, i.e. DS and PW. Scale-up is necessary, and PW currently targets the poorest of the three VUP schemes. Implementation challenges should be addressed if VUP is to reach its full potential, and links to climate change adaption interventions are key.

Source: UNDP NHDR background paper, 2018d.



UMURENGE WA

INSHURURWA INYUBATSE, INYUBATSE INYUBATSE



GIKOMERO



4

**Achieving inclusive
and sustainable
human development
through innovative
policies: Key lessons
from Rwanda**

4.

Achieving inclusive and sustainable human development through innovative policies: Key lessons from Rwanda

4.1 Harnessing innovations for socio-economic transformation

The impressive outcomes in education, health and income poverty over the last ten years provide evidence of Rwanda's ability to harness local innovations.

Over the last 15 years of continually deploying local innovations that are rooted in the country's cultural values, Rwanda is increasingly becoming an innovation hub in Africa since most of these innovations are being recognized and imitated. Indeed, in the summer of 2018, the Government of Rwanda created the Rwanda Cooperation Initiative (RCI) to manage the influx of study tours coming from all over Africa to learn about Rwanda's policy innovations and in particular, the HGSs.

The impressive outcomes in education, health and income poverty over the last ten years provide evidence of Rwanda's ability to harness local innovations. Among the recognized innovations, HGSs have helped Rwanda rebuild social cohesion after the 1994 Genocide against the Tutsi and establish an effective framework for citizens' mobilization and public sector accountability. This has facilitated performance in different sectors of development and in human development. Subsequently, Rwanda is leveraging its considerable success in policy innovations by expanding HGSs and integrating them into core development strategies to cost-effectively extend essential services to citizens while building social cohesion. This has enlisted a near-complete buy-in by citizens and provided a solid foundation for state effectiveness.

Citizens in all areas but mostly rural communities now mobilize to address

their own basic infrastructure needs, save and support each other to pay CBHI subscriptions, build houses and sanitation facilities for vulnerable people, and maintain community security through well-organized neighbourhood watch initiatives. As a result, the Government (including local government entities at the sector and district levels) is gradually shifting from intense mobilization to coordination and policy guidance. It still faces the challenge of gap-filling where community efforts are yet to be fully realized. It is in this context that this Report recognizes the innovative policies including HGSs that are implemented to document progress and high-light potential for transformative change. The sections below provide the most glaring innovation within each of the five HGSs; success factors, lessons learned are identified, and strategic recommendations for enhanced impact are provided.

4.2 Major innovations in HGSs implementation

Innovations in *Imihigo*

The most important attributes of the *Imihigo* approach that make it innovative are the high sense of urgency, the push for new and creative ways of working, the regular and vigorous monitoring, and multilevel stakeholder engagement that ensures that the set targets are met. These attributes have been enhanced by competitiveness among districts. Since they are a priority at the highest level of government and are evaluated and ranked nationally

as the basis for districts' performance, *Imihigo* tend to attract more attention and resources than other activities. It is fully integrated in the local and national plan, ensuring effective delivery of development results.

More recent innovations in *Imihigo* have also included the concept of joint *Imihigo*, where different central government line ministries and local governments sign and work together to deliver on cross-cutting commitments. In the near future, it would be useful to assess how this concept has addressed the challenge of cross-sectoral coordination in service delivery.

The *Imihigo* Joint Operations Committee (JOC) is a platform where local authorities (district executives, councillors, senior technical staff, leaders of security agencies, sector executive secretaries) in some districts, particularly Rwamagana, interact informally and discuss, *inter alia*, *Imihigo*'s progress, and identify and address challenges in implementation without having to wait for formal monthly and quarterly reports. This informal interaction, which occurs at least once a week (usually after the security meeting), helps to regularly update key stakeholders and jointly identify where more effort needs to be made. It has also helped enhance coordination and cooperation among district actors, resulting in increased performance, accountability of *Imihigo* processes, and ownership of outcomes.

Innovations in community-based health insurance

CBHI was designed and has continuously been redesigned to help the Government of Rwanda achieve universal health coverage, after realizing that any form of payment levied upon the poor will reduce demand for healthcare. Reforms undertaken since its introduction in 1999 and especially since 2003 when it was rolled out nationally have enabled inclusion, with a primary focus on the poorest people. While the Government addressed the supply-side issues, citizens addressed the demand-side issue of affordability through key innovations that have enhanced performance that include:

- *Amatsinda ya mitweli/Ibimina bya mitweli* (community self-help initiatives to

save for CBHI): Associations and informal groups were formed at different levels for ordinary citizens to support each other in raising funds for CBHI subscriptions. The primary objective is to ensure that all members can save and pay their premiums on time. The groups also lend to members who are unable to raise CBHI premiums, thus enabling them to cover their families. This has increased subscription rates in all districts. In some areas such as Mamba sector, Gisagara district, at least two villages already registered almost 100 per cent of CBHI subscriptions for the fiscal year 2018/19.

- *Simplified payment schedules*: The RSSB devised a mechanism where CBHI holders can pay their subscriptions in small instalments and complete payments before the year begins. Also, digital platforms using simple available tools such as mobile phones have increased the convenience of payments, since subscribers need not incur costs such as transport and system breakdowns associated with payment through the bank or at the administrative office.

These initiatives have yielded positive results. Presently, enrolments surpass 90 per cent in many districts, and some sectors registered almost 100 per cent of CBHI subscriptions for 2017/18, in July 2018.

Innovations in the *Girinka* Program

Mitweli y'inika (mutual/community-based insurance for Girinka): This is an initiative where *Girinka* beneficiaries come together and pool efforts to manage the cows. In Gisagara, an association of *Girinka* beneficiaries was formed to address the challenges of looking after the cows. Each member contributes Rwf500 a month. The funds raised are used to buy drugs for treating the cows and acaricide for spraying the ticks, as well as other feed requirements such as salt. The balance is used to extend credit facilities to members to meet essential household needs such as paying CBHI subscriptions. This initiative has increased livestock management

More recent innovations in *Imihigo* have also included the concept of joint *Imihigo*, where different central government line ministries and local governments sign and work together to deliver on cross-cutting commitments.

In all districts visited, Girinka was lauded for helping to incentivize behavioural change among beneficiaries, especially potential beneficiaries.

among *Girinka* beneficiaries and could be an effective remedy for addressing the challenge of *Girinka* productivity where management capacity among beneficiaries is low.

An incentive for conflict resolution and an instrument for fostering genuine reconciliation and good behaviour and integrity: In all districts visited, *Girinka* was lauded for helping to incentivize behavioural change among beneficiaries. As an example, beneficiaries no longer have time to idle around or engage in illicit social activities such as drinking alcohol.¹⁴¹

The active engagement in *Girinka* of Government Partners, as well as of the Private Sector Federation is exemplary for effective partnerthe Private Sector Federation is exemplary leadership models. CSOs purchase and distribute cows to poor households, women, genocide survivors, convicts' families as well as other target groups as part of initiatives to promote peaceful co-existence and conflict resolution within different Rwandan communities.

4.3 Why have home-grown solutions worked? Success factors and key lessons learned

Policy innovations often fail, especially in targeting and lifting poor people out of poverty. Rwanda's HGSs have worked in addressing the twin challenges of post-conflict reconstruction and development, namely: (i) reconciliation and social cohesion; and (ii) reduction in extreme poverty and inequality. Rwanda's five HGSs under consideration in this Report are not homogeneous, and the factors underlying their performance certainly vary. There are, however, a number of key factors that constitute the main ingredients of success across the HGSs as follows:

1. Political will and commitment. HGSs are conceptualized and rolled out with the firm strategic direction and support of focused and committed leadership. It takes leadership and commitment to stay focused even where capacity and resource constraints tend to be discouraging for longer periods. Due to concern over the declining access of poor

citizens to healthcare, the post-genocide Government of Rwanda designed CBHI, showing its commitment to provide affordable, reliable healthcare for all its citizens.

The government spending on health has surpassed the 15% target set in the 2001 Abuja Declaration. As of end of Fiscal year 2015/16, Rwanda's public health budget as a share of total Government budget was 17%.

This shows the country's firm commitment to support the development of health sector. Citizens' satisfaction with healthcare has continued to rise due to continuous improvements. Similarly, *Girinka* and VUP directly target the poorest using public resources, and public investment in these social protection programs continues to increase despite the demands from other sectors. Beyond the commitment, however, national leadership needs to have effective instruments for enforcing compliance and ensuring accountability. Hence, the Rwandan leadership restructured *Girinka*, Umuganda, VUP, CBHI and Imihigo accordingly to keep them focused on delivering for the target groups. Political commitment has incentivized effective implementation, including by sustaining public investments in social protection and investing in facilities and assets for helping the poor graduate from their condition, within budgetary constraints. Rwanda's success largely comes from its ability to sustain a lean and cost effective government, enabling it to invest in areas that affect the poor. This is, again, a demonstration of visionary and firm leadership.

2. Design and results-focused implementation: Most HGSs were conceptualized and designed to provide solutions to clearly identified problems, and with a clear vision. They also addressed the real needs of the population. The design and implementation of HGSs have been continuously reviewed to ensure that challenges are identified and addressed, and the scope and implementation, approach adapted to achieve the results. All of the five HGSs analysed have been associated with positive and citizen-centred reforms leading to increased citizens' participation, more impact on the wellbeing of poor peo-

ple, equity, and the establishment of systems for sustainability. HGSs have been associated with the approaches and tendency of yielding higher results with less funding, most notably Imihigo. A clear example of efficient implementation is in CBHI, where 82 per cent of the expenditures is directed to the core function of healthcare delivery and only 18 per cent on overhead.

3. Firmly building on local governance structures: Decentralization has created an effective institutional and policy framework for local innovation and self-drive. It has also enabled the establishment of supportive mobilization and awareness raising mechanisms. As a result, the five HGSs are a major means of addressing local development and service delivery challenges, including health, agriculture, security, infrastructure and administrative services, etc. An extensive network of community volunteers, mobilizers, advisers, counsellors and administrators have worked and are working together to make change.

CBHI has helped increase access to quality healthcare and has significantly reduced maternal and child mortality. This is due, to a considerable extent, to the aggressive mobilization and timely response of CHWs to citizens' healthcare needs as well as their efforts in mobilizing for CBHI subscription. More than 45,000 men and women who were recruited as CHWs, have undergone basic training and have been equipped with Rapid Test Kits and medicine to test and treat malaria. Four CHWs deployed in every village administer immunization and provide basic care for pregnant women, assisting them in antenatal and postnatal care at health centres. According to UNICEF (2018a), CHWs have effectively treated, inter alia, malaria and diarrhoea, and have helped to improve the management of childhood illnesses in communities. A recent survey by RGB found that more than 90 per cent of citizens were satisfied with the activities of CHWs, especially the care provided to pregnant women, immunization, family planning and awareness raising on CBHI.¹⁴³ Decentralization has thus also enabled the central government to keep focused

on policy and resource mobilization, thereby creating an effective public service delivery system and policy implementation framework, not common among Rwanda's peers in Africa where public policy implementation often fails to deliver.

4. Continuous learning and integration into national policy. Continuous learning and adaptation have enhanced the reach and performance of HGSs, especially CBHI and Imihigo. The establishment of digital/online platforms that allow citizens anywhere to pay subscriptions for anyone is the latest reform that has improved user-friendliness. The requirement for CBHI holders to carry paper cards whenever they visit health facilities was also recently removed as automation has eased identification. This points to continuous improvement in the management of the scheme. Similarly, continuous reforms have also improved the performance of Girinka, Umuganda and Imihigo. Imihigo have become more citizen-centred and participatory, and the priorities set, more solid and realistic, and are progressively being adopted as the main planning framework for decentralized service delivery and public investment management. In addition, the five HGSs have reinforced each other with Umuganda and Imihigo providing the overarching framework for target setting and accountability. Thus, HGSs have continued to inform planning, policy and accountability of the public sector through their continuous evolution, which has involved continuous learning and adaptation.

5. Responsiveness of development partners, civil society and the private sector: The leadership and commitment of the Government of Rwanda has helped enhance the HGSs results, through its approach to influence the programming and delivery of other development actors." Many NGOs are, for example, extending VUP-like support, especially in the area of direct support and financial services, and a minimum package. The private sector has reconfigured its corporate responsibility approaches in many areas to integrate Girinka. For instance, the Rwanda Private Sector Federation spent Rwf 1.1 billion

Decentralization has created an effective institutional and policy framework for local innovation and self-drive.

Poverty manifests itself in multiple ways, including lack of income, limited human capital, housing, access to energy, etc.

(around US\$1.13 million) during 2017 alone for the purchase of cows.

The positive response by Government partners, including the private sector, has not only contributed to achieving the Girinka target (more than 82 per cent at the end of 2017), but has also provided a foundation for institutionalizing and sustaining the concept. With respect to CBHI, several NGOs and corporate businesses significantly contribute financially for CBHI coverage by supporting many households that cannot raise the premiums. These interventions enable the national and local governments to set and meet targets, and act as a confidence-building measure to enhance and sustain outcomes from these HGSs. In many respects, the HGSs have provided a window for active participation of Government partners and their direct contribution to local human development initiatives, in addition to providing employment and business opportunities.

Key lessons learned

In implementing the HGSs, several lessons were drawn. Three critical ones related to the five HGSs under consideration in this Report are given below:

Poverty and vulnerability manifest themselves in multi-dimensional ways, and addressing deprivations arising from such vulnerabilities requires multiple interventions. Poverty manifests itself in multiple ways, including lack of income, limited human capital, housing, access to energy, etc. This complex situation cannot be addressed by a single HGSs intervention (e.g. free CBHI subscription or *Girinka*). Findings from data analysis and field observations reveal that severe deprivations or multiple vulnerabilities are most effectively addressed by multiple HGSs interventions that are appropriately interlinked (Annex 3A). Thus, the contribution of HGSs to human development could be maximized if the target groups, especially the poorest facing severe multiple deprivations, are supported by more than one HGSs. For instance, those who benefited from VUP, *Girinka* and CBHI or *Umuganda* are more likely to exit out of poverty faster.

HGSs have transformational potential, but scale matters. As shown in the above chapters, HGSs contributed substantially

FIGURE 4.1

Hierarchy of transformation pathways among Girinka and VUP beneficiaries



Source: Produced from field data (May–June 2016).

to human development. Furthermore, each of the five HGSs has demonstrated enormous potential for impact. However, it is clear that scale of intervention matters for transformation. For example, CBHI, which has a relatively large coverage of a wide range of households, is contributing immensely in diverse areas of human development. Furthermore, although *Girinka* has made a significant contribution to human development, it has yet to fully exploit its full potential because of its limited scale. As illustrated in Figure 4.1, most beneficiaries are still on the first or second step on the transformational path that they traced by themselves.

Lifting the poor out of poverty cannot be achieved simply by developing an innovative program. It must be guided and managed effectively in ways that are sensitive to an often complex, local socio-cultural and environmental context: Successful implementation of innovative policies requires much more than designing programs and mobilizing resources; it requires close follow-up, streamlined process, and engagement of citizens and structures that promote transparency and accountability. For example, the initial stages of *Girinka* faced targeting issues where in some instances, local leaders were apprehended for taking the cows themselves or giving them to those not most deserving. This was quickly detected and reviewed by higher authorities and firm guidelines put in place. Similarly, continuous guidance of VUP beneficiaries, especially VUP-PW and VUP-DS grant beneficiaries, helped beneficiaries save and learn to work with banks, and invest in various ventures that have set their lives and households on the path of transformation. The same is true for CBHI, where effective guidance has set the initiative on a successful path.

4.4 Summary

HGS have worked and are working to effectively improve human development in Rwanda. They are successful primarily because they speak directly to, and address the needs and circumstances of, the target populations. They also embed the cultural and social values of Rwandans. More importantly, however, there is a strong and effective institutional framework driven by a sense of focused and committed leadership from the top. This has motivated all actors in the implementation process right to the bottom to work with limited external motivation. The other important success factor for HGS is the empowerment of citizens to make decisions on their own personal and community development. As a result, poor citizens now feel that they are more connected, their country is working for them; and they are participating in their own development, for example, in decisions on the establishment of schools, health centres, community roads and bridges, water supply systems, etc. Moreover, they are helping each other to cope with disasters that destroy their homes and livelihoods. This stronger sense of belonging to a community and ownership of its policies will foster the resiliency of Rwandan society. This may be the cornerstone of Rwanda's sustainable transformation. There is still room, however, for the economic transformation of Rwanda's poor through the five HGSs analysed. The transformational potential of the HGSs can be harnessed by further scaling up some of the programs, enhancing inter-program coordination and exploring synergies.¹⁴⁴

HGSs have worked and are working to effectively improve human development in Rwanda. They are successful primarily because they speak directly to, and address the needs and circumstances of, the target populations.



5

**Strategic challenges
and opportunities for
enhancing human
development through
home-grown solutions**



5.

Strategic challenges and opportunities for enhancing human development through home-grown solutions

5.1 Challenges

Rwanda has made significant progress in human development but continues to face strategic challenges, as described below.

Poverty: Poverty and inequality declined substantially in Rwanda over the last two decades. Progress was made in addressing poverty in multiple ways, including by directly transferring assets, fostering an enabling environment for rural wealth creation such as security and infrastructure expansion, improving knowledge and skills, and investing in social services, notably health, education, housing and clean water. The Gini index reduced from 0.52 in 2006 to 0.42; however, income and multi-dimensional poverty remain high, and inequality is still affecting Rwanda's human development levels, causing a loss of 36.4 per cent of the HDI value. The Government of Rwanda recognizes this challenge, and in its long-term Vision 2050 and NST I medium-term plan, aims to bring social and economic transformation, which will lead to the eradication of poverty in all its forms and a reduction of inequality.

Multiple vulnerabilities: The poorest and most food-insecure areas are often the most susceptible to external shocks such as landslides, floods and prolonged droughts,¹⁴⁵ which further affect the population's ability to exit from poverty and deprivation. The most prevalent shocks are related to climate change, which affects food security and enhances vulnerabilities. Although food security and nutrition have improved, a large percentage of the population remain

vulnerable; half of the 80 per cent of households considered food-secure have marginal or borderline food security.¹⁴⁶ In the Western Province, for example, the proportion of food-insecure households declined only marginally, from 37 per cent in 2012 to 35 per cent in 2015.¹⁴⁷ Given the emphasis on the 'leave no one behind' principle of Agenda 2030, people facing extreme vulnerabilities need special attention, such as the landless, people living in areas prone to disasters, and those living in large households. Strengthening and scaling up multisectoral responses that address the root causes of vulnerabilities and based on household profiling go in this direction. Applying such approaches to a wider array of social sector policies would contribute to address multi-faceted vulnerabilities more effectively.

Demographic pressure: Rwanda has a high population growth rate, and most of the country is densely populated. Large households in Rwanda, as elsewhere, tend to be poorer and more deprived of basic human necessities than smaller households. The poor are also more likely to live in harder-to-reach areas that are under-served by infrastructure such as roads, clean water supply, healthcare and basic education facilities. For HGSs to effectively target these people, their unique circumstances must be taken into account and tailor-made provisions included in the interventions and implementation modalities. HGSs, especially CBHI, VUP and *Imibigo*, provide an opportunity to integrate population control and reproductive health into development policies, and help to effectively stabilize Rwanda's population growth,

The poorest and most food-insecure areas are often the most susceptible to external shocks such as landslides, floods and prolonged droughts.

and expand and sustain human development gains.

Productivity and youth employment: In Rwanda, there are high levels of underemployment, especially in rural areas, and not enough non-farm jobs have been created. In addition, there are high production costs for firms and unskilled labour, especially in urban areas. Education improved over the past years, yet marketable technical and vocational skills are still in short supply. A related challenge is the capacity of the economy to generate quality jobs and steady income for its citizens. While there is some progress, the modern wage sector occupies a mere 6 per cent of the working-age population, whereas 91 per cent of the employed work in the informal sector. Hence, job creation, enterprise development and skills development remain important areas for addressing this challenge. HGSs are contributing to enhancing productivity and income generation, and strengthening HGSs' linkage to employment creation for the youth population will be of paramount importance.¹⁴⁸

Capacity limitation at the local level: Results from the 2018 Citizen Report Card survey show that 69.3 per cent of citizens are satisfied with the various services provided at the local level, while 31.7 per cent are dissatisfied. Many districts operate with few personnel who are overburdened, yet most HGSs programs require constant follow-up and reporting. Very often, the time of local government officials is dedicated to respond to operational issues. The inadequate institutional and human resource capacities contribute to the limited involvement of local actors in the policy formulation process, yet the lessons they draw from their day-to-day implementation experiences could help improve policy innovation. Local government entities also need to be technically equipped and skilled, and should be assigned more challenging responsibilities to deliver beyond turning operational inputs into outputs. Enhancing the capacity of local government entities to engage at the strategic level and dealing with complex outcomes such as reducing poverty and increasing employment will promote local initiatives,

self-motivation and creativity to find innovative solutions.

Private sector engagement: The private sector is considered an engine of growth in Rwanda's strategic frameworks. In recognition of the major role played by the private sector, the Government of Rwanda has made significant strides that have earned global recognition in terms of doing business. While encouraging results are emerging, the response in terms of private sector growth is yet to be fully harnessed. Within the framework of HGSs implementation, private sector actors are contributing to and subsequently benefiting from HGSs in useful ways. For instance, in some districts, many businesses, especially enterprises that provide short-term employment in mining, construction and steel mills, now require applicants to have, *inter alia*, valid CBHI subscriptions. This has encouraged youth, who are often reluctant to do so, to subscribe to CBHI. Subsequently, subscription rates are increasing with less mobilization efforts by local authorities. In addition, many districts consider the private sector an important partner that helps them cover CBHI subscriptions for poor households, which has also helped districts to meet their CBHI-related *Imihigo* targets. The private sector also benefits by transferring the risks associated with employing workers through CBHI coverage. Workers no longer frequently fall sick or claim support for occupational hazards. Similarly, in *Girinka*, the private sector contributes at multiple levels, individually and at the corporate entity level, as well as through umbrella platforms. While this is commendable, private sector engagement could be optimized by involving it at the transformation level. It is important to widen the scope for private sector participation in policy design and implementation. This is particularly important in *Imihigo*, where many development results will rely on private sector investments and/or the ability to deliver results in public investments. The Revised Policy and Strategy on *Umuganda* provides a good example of how HGSs can be revised to include or strengthen the role played by the private sector in their implementation.

The private sector is considered an engine of growth in Rwanda's strategic frameworks.

Following the implementation of the HGSs over the years, significant information and knowledge are being generated.

Reliable information and knowledge management system: Following the implementation of the HGSs over the years significant information and knowledge are being generated. However, due to unavailability of modern information and knowledge management systems, it is difficult to find information from a single source that could inform the implementation of HGSs or assess their impact. For example, *Ubudehe* social mapping, in which citizens are placed in wealth or socio-economic categories, is presently the main basis for local planning and decision-making. Resource allocation and selection of beneficiaries for social protection interventions under different HGSs (*Girinka*, VUP, free or subsidized CBHI) and other interventions are based on these rankings. The database on *Ubudehe* categories provides potential for supporting social development planning if it can be comprehensively developed with accuracy, consistency and simplicity to enable different actors to input and query data.

Inadequate coordination mechanisms: According to the SP (2018/19-2023/24), Social protection policy objectives and programmes are delivered by a wide range of institutions, both Governmental and non-governmental. The policy further recognizes the Capacity gaps particularly apparent at Sector and Cell level. Furthermore, it notes the increased fragmented social protection programmes thereby further increasing the burden on local governments and it acknowledged limited progress in the harmonization of programmes and institutions that was envisaged in the previous National Social Protection Strategy (NSPS, 2013-2018). To address this challenge, Inter-ministerial coordination shall be achieved through mechanism was established within the Social Cluster meetings. While it is too early to assess its effectiveness, strengthening the coordination of the HGSs which are part of the Social Protection Programmes is key.

Policy and institutional oversight of the HGSs remains under the responsibility of various institutions (RGB, LODA, RAB, RSSB, MINALOC, MoH, MINAGRI, etc.), although there has been a recent initiative to establish a coordination mechanism within the RGB. As a result, each

program continues to be implemented differently, even where the overall objective and the target groups are primarily the same. Consequently, the effectiveness, efficiency and scale dividends that would potentially be generated from program synergies and interlinkages are lost or missed. The Government of Rwanda should consider integration, at least at a high policy level, to enable it to more coherently provide policy guidance and strategic oversight. This is especially critical in delivering social protection and social transformation objectives of the Government. It should be recalled that the five HGSs reviewed fall under the mandate of more than three line ministries and agencies, and directly contribute to the development mandate of more than five others, which creates complexities in coordination and oversight. Thus, any coordination mechanism should be set up above the line ministry level, for instance by creating a multi-sectoral oversight team at the Prime Minister's Office, to be entrusted with a coordination and oversight mandate. This would promote a coherent, integrated response to the multi-dimensional challenges of poverty reduction and socio-economic transformation through HGSs.

Gaps in the M&E framework of HGSs: Over time, HGSs developed M&E frameworks. However, M&E frameworks for HGSs are more operational than strategic or policy-oriented. HGSs M&E tends to focus on accounting for inputs¹⁴⁹ and limited attention to the desired outcomes, i.e. transforming the wellbeing of the beneficiaries and local economies. For instance, annual reports on *Girinka* focus on administrative operational information, mostly tracking the numbers of cows distributed in different districts. Yet, field visits to individual beneficiaries and discussions with local authorities and independent local analysts all clearly indicate significant positive change in the standards of living of the beneficiary households and the community around them. However, without coherent information that analyses policy issues such as who is likely to be transformed by *Girinka*, where and under what conditions, it becomes difficult to glean important lessons for appropriate, evidence-based reforms in policy innovations.

5.2 Opportunities

In terms of opportunities for ensuring continuity and sustainability of outcomes for enhanced human development, some key positive factors are integrated across the HGSs: HGSs are deeply rooted in national cultural values: HGSs have been embraced by Rwandans due to their strong cultural roots. They are likely to be sustained beyond current political support to a large measure due to the extent to which they have been packaged and perceived as instruments for restoring positive cultural values of giving and sharing, dignity and leadership accountability. Integration into national plans including budgets: Many of the HGSs started as ad hoc, stand-alone, often disjointed programs. Specific policies and legal instruments were then adopted, and now most of them are integrated in the overall planning for public sector management. For instance, Imihigo are becoming the modus operandi of local government entities since most of the core activities implemented by them fall within Imihigo. Integration of Umuganda into local action plans started under the provisions of the Revised Policy and Strategy for Umuganda, and in fact, activities to be undertaken through Umuganda are identified and covered in the budget. Buy-in by wider stakeholder groups: Local development actors, including private sector actors, have also embraced and supported HGSs implementation in their work plans as well as local government programs in the communities where they do business. Faith-based organizations and donor-funded local and international NGOs have aligned their program priorities and implementation modalities to district plans. Favourable policy environment: Rwanda has been generally successful in creating a highly conducive enabling environment for sustained development. This success is largely documented in many global and regional reports. The emerging opportunities from a national policy shift, regional integration and globalization, as well as nation-wide Information and Communication Technologies (ICT) infrastructure allow to position Rwandan youth as the drivers of innovation towards Vision 2050. Effective integration of values-based education,

ICTs and entrepreneurship into vocational training and providing appropriate incentives to youth to participate in the HGSs will be critical.

5.3 Towards enhancing human development through home-grown solutions

In the framework of strengthening innovation and scaling up HGSs interventions to catalyse Rwanda's transformation and human development progress, general recommendations are as follows:

Consolidate gains from HGSs in all dimensions of human development and build resilience in order to sustain these gains. Three levels of intervention are needed to ensure this. At the policy level, each HGS is constantly improved and adapted to enhance its efficiency and effectiveness. At the inter-institutional level, this will be achieved by fostering the interlinkages between different HGSs and harmonizing their targeting through increased coordination. At the strategic level, HGSs as single policies and as an integrated system of interventions continue to be linked to the existing transformational agenda. These interventions will ensure that the gains and the policies are sustainable in the long term.

Align incentives with the transformation agenda to spur greater innovation: The HGSs have helped and are helping Rwanda to transform along the lines dictated by the subsequent development strategies. With the progressive shift from the post-genocide recovery agenda to the transformational agenda, HGSs will be required to change and adapt to the new development needs and to a rapidly changing context (an increasingly young population, technological developments and increasingly interconnected value chains). There is, therefore, a need to align incentives at the local government level to encourage the innovation of existing HGSs and the design of new HGSs to support the transformational agenda set out in the NST I. The Government is already moving in this direction. The creation of the Rwanda Cooperation Initiative (RCI) responds not only to the need to streamline Rwanda's

Rwanda has been generally successful in creating a highly conducive enabling environment for sustained development.

participation to South-South and triangular cooperation, but also to nurture innovative approaches to existing problems by designing new HGSs.

Enhance the implementation of a comprehensive, national social protection and transformation framework: Despite the existence of this framework, there are still challenges in enhancing the implementation of social protection interventions, which affect both the effectiveness of the policies and the efficiency of their management, because the programs often target the same people, but not in a coordinated and systematic manner. Greater efficacy lies in exploring and leveraging interlinkages that address the complex barriers to poverty reduction and socio economic transformation in different ecosystems and localities. Rural Rwandans struggle to live on scarce natural and economic resources, and those with the least access to these resources struggle the hardest. United Nations Population Fund (UNFPA) (2015) argued that an inclusive and broad based social protection system is needed to protect the poorest households and children from extreme deprivation, and to provide opportunities for the promotion of livelihood and productive activities for both men and women. It is within this framework that the country has introduced initiatives such as The Minimum Package for Graduation, the Multi-Sectoral Plan for Eradication of Extreme Poverty and malnutrition among others that are aimed at supporting the extremely poor and vulnerable Households including the elderly and disabled as entailed in the Social Protection Sector Strategic Plan (2018-2024). This framework, if approved and implemented, could improve the outreach and effectiveness of social protection in Rwanda. Realigning the different social protection interventions under a wellcoordinated institutional framework with clear outcomes and innovative, tailor made support mechanisms to lift the poor out of poverty will effectively address the complex vulnerabilities that the poor face and deliver on both the national transformation agenda and the global Agenda 2030.

Rwanda is increasingly becoming a youthful country. Youth are active players and beneficiaries of HGSs, and there are ample opportunities to engage them more proactively.

Strengthen the capacity of sub-national actors:

A key challenge raised throughout the districts and lower levels is that the HGSs and the decentralization implementation process focus strongly on citizens in highly ambitious ways that are not, however, matched by the capacities of local implementation actors. Although the human and institutional capacity of local government structures has expanded to a great extent since the decentralization policy was adopted in 2001, and they now manage about one-fifth of Rwanda's national budget, their ability to motivate and retain quality human resources remains a serious challenge. Key elements to further effective delivery of HGSs and broader social and economic services will include building on the success of *Imihigo*, promoting mutual learning, putting in place systematic capacity building benchmarked on the best local government entities, as well as enhancing development partners' support to them.

Engage youth more proactively in HGSs:

Rwanda is increasingly becoming a youthful country. Youth are active players and beneficiaries of HGSs, and there are ample opportunities to engage them more proactively. Under VUP there is scope for reviewing the design and implementation of regulations to create specific opportunities for rural youth. The focus should be on innovative activities that add value to local resources and/or solve local development challenges, such as energy, livestock feed, water and waste management. Also, within the *Girinka*, greater opportunities to add value can be exploited by involving youth in the milk/dairy value chain. In *Umuganda* 's Revised Policy and Strategy, a provision is now made to focus on the youth dimension in HGSs policy-making by promoting youth participation in *Umuganda* through the structures in place, such as the Youth National Council and the *Itorero/Urugerero* (*Itorero* is a national civic education training program and *Urugerero* is the National Service Program), thus fostering synergies and coordination. Significantly, the Policy suggests that greater participation should be achieved by identifying attractive activities for youth.

Addressing climate change and related risks: CBHI has succeeded in cushioning Rwandans, especially the poor, from significant risks related to ill health. As demonstrated in this Report, the implications for human development stretch beyond improving health and life expectancy, because households' critical economic assets are protected, labour productivity improves, and children's learning outcomes improve. There are, however, other emerging risks that threaten the health and living standards of the population. For example, climate change and the associated effects on the economy is affecting and will continue to affect human wellbeing in multiple ways that may undermine the human development outcomes of HGSs. As part of the climate change adaptation, the role of HGSs interventions should be considered to build the resilience of communities and household systems.

Leveraging technology and knowledge: There are opportunities to address

challenges such as resource scarcity, and the quality and productivity of labour by leveraging appropriate modern technologies, which would make a significant difference if productively exploited. With possibly the exception of CBHI, most of the HGSs are yet to fully exploit this potential. With the increased recognition of Umuganda as part of the development strategy contributing to achieving local and national development objectives, the activities and outcomes of Umuganda should, for example, be guided by technical studies (e.g. for water supply systems, community roads and bridges scientifically planned with technical guidance on local materials to use). Similarly, the Girinka program could benefit a great deal from adopting best practices in animal husbandry and using technology to link farmers with large enterprises. For the five HGSs analysed, the specific actions to address the main challenges are summarized in Table 5.1.

Climate change and the associated effects on the economy is affecting and will continue to affect human wellbeing in multiple ways that may undermine the human development outcomes of HGSs.

TABLE 5.1

Key specific challenges in home-grown solutions and recommended actions

HGSs	Major challenge	Key policy recommendation
<i>Imihigo</i>	Inadequate capacity for strategic planning and linkages with district planning processes to be further reinforced. This often leads to inadequate design that also affects monitoring, reporting and development results management.	<ul style="list-style-type: none"> • Strengthen institutional capacity for policy analysis and provide strategic guidance to sub-national entities (targeting line ministries). • Continue enhancing the bottom-up approach and linkages with district plans with the view to balance national strategic priorities and local needs. Enhance citizen engagement over the full cycle of Imihigo including in the prioritization of interventions, implementation and monitoring.
	Inadequate private sector engagement, which leads to limited ownership of the Imihigo process and outcomes. This is underpinned and further exacerbated by limited capacity for innovative program execution.	<ul style="list-style-type: none"> • Implement innovative mechanisms and provide incentives to enhance private sector participation and innovative contribution to the planning, financing, maintenance and scale-up of Imihigo projects and associated impacts. • Ensure that the appropriate involvement of private sector actors at all levels of Imihigo will increase project innovation, efficiency and effectiveness, enhance synergy and local ownership, thereby contributing to an optimal, positive impact on local economies and human development, and strengthen sustainability of outcomes. • Provide incentives through locally relevant public-private partnerships, which could help motivate and promote private sector participation in Imihigo beyond the current framework of vendor/supply status that currently defines most private sector involvement.
	Limited transformational scope of the project interventions and tendency for local government entities to implement too many targets that may be difficult to meet in one year and within the constraints of financial and institutional capabilities.	<ul style="list-style-type: none"> • Strengthen local government entities' capacity for planning, resource mobilization and project management. • Continue to improve inter-governmental relations to ensure that joint (local and central) planning improves coordination and ensures adequate and timely disbursement of funds.
<i>Umuganda</i>	Inadequate skills, knowledge, tools and standards or guidelines to establish or maintain community infrastructure to an appropriate and sustainable level.	<ul style="list-style-type: none"> • Provide holistic capacity building support to local governments and communities to establish more reliable and sustainable infrastructure. This should include the provision of a budget for local government entities and communities to acquire relevant equipment to supplement citizens' own tools/equipment, the provision of skills through training and mentorship of youth in each community (e.g. in basic masonry or design), and the provision of appropriate guidelines and standards for community infrastructure establishment, operation and maintenance.
	Citizens are likely to be discouraged if the Umuganda-established community infrastructure becomes dysfunctional soon after its establishment.	<ul style="list-style-type: none"> • Enhance technical planning and supervision of Umuganda to ensure a more appropriate establishment and maintenance of community infrastructure and other works (including houses constructed for vulnerable people).
	Limited use of post-Umuganda meetings as community development platform.	<ul style="list-style-type: none"> • Develop and implement a supportive framework for post-Umuganda meetings to be structured and planned around events/thematic topics identified under the provisions of the revised policy on Umuganda (2017). The framework can be detailed in the new guidelines for institutionalizing Umuganda coordination and will help Umuganda become an effective long-term tool for local development.
<i>Girinka</i>	Limited adaptation of Umuganda activities to the growing section of the urban population and youth.	<ul style="list-style-type: none"> • Enhance communities' capacity to identify and implement innovative interventions that are consistent with their communities' unique needs. This should be consistent with the national values. • Strengthen relevant national and sub-national institutions to provide appropriate leadership and coordination of Umuganda activities. • Create a platform for community input to better adapt Umuganda to the new urbanization and demographic trends.
	Targets for the distribution of cows still do not meet the needs despite the significant progress.	<ul style="list-style-type: none"> • Mobilize resources to enable more poor households to receive cows so as to achieve poverty reduction and socio-economic transformation outcomes of the program. • In line with the draft social protection policy direction, complement the Girinka programme design by scaling up access to small livestock (particularly among households with children and women at risk of malnutrition) and other programs integrated in the multi-Sectoral Plan for eradication of extreme poverty and malnutrition. This should be carefully balanced to maintain the 'pass on' aspect of the Girinka model while meeting the need for more rapid results. • Address the corruption problems highlighted in the RGB report, "Assessing the Girinka Program (2006-2016)", to ensure that beneficiaries receive the cows and do not sell them.

HGSs	Major challenge	Key policy recommendation
	Limited capacity of Girinka beneficiaries and the Girinka support system to productively manage the cows (mostly manifested in insufficient feeding), leading to low manure and milk production, low weight and slowed growth, and ultimately low incomes for beneficiaries.	<ul style="list-style-type: none"> • Strengthen the administrative and technical capacity of the local extension system to provide appropriate holistic livestock advisory services. • Promote modern, intensive livestock management practices (including training of beneficiaries in local animal feed production). • As per the proposed direction of the social protection policy, develop a Management Information System (MIS) for the Girinka Program to increase accountability for resources and results.
	Limited organisation/grouping of Girinka beneficiaries in order to maximize returns from the program for accelerated poverty reduction.	<ul style="list-style-type: none"> • Integrate the Girinka Program into the livestock/milk value chains and organize them to form or join cooperatives to increase their bargaining power and access to finance. • Invest in training and institutional support to local value chains to improve the quality and competitiveness of milk produced by Girinka beneficiaries. • Support Girinka beneficiaries (together with other smallholder livestock farmers) to add value to their milk locally in ways that assure quality for nationwide distribution and external/regional export market. • Enhance market linkages between Girinka beneficiaries and large and medium enterprises operating in the value chain.
VUP	VUP-PW does not provide a sufficient number of working days to achieve its objectives, based on the current payment structure.	<ul style="list-style-type: none"> • Finalize the draft Social Protection Policy and ensure that more resources are budgeted for VUP-PW allowing for an increased number of days allotted to every beneficiary.
	The short-term nature of VUP benefits and lack of appropriate mechanisms for sustainable livelihood opportunities, limits its impact on poverty and human wellbeing.	<ul style="list-style-type: none"> • Organise VUP-PW beneficiaries into formal, managed groups and equip them with relevant skills (e.g. for rural infrastructure operation and maintenance). Establish long-term partnerships with youth groups under VUP and help them access employment/business opportunities as local contractors in appropriate infrastructure maintenance. • Support local governments with budget and requisite organizational support to mobilize and engage PW beneficiaries in maintenance of the infrastructure established by VUP. • Further enhance the link between VUP-PW and climate change-related interventions.
	Inadequate support for livelihood and economic diversification of activities, resulting in limited impact on the transition out of poverty.	<ul style="list-style-type: none"> • Design and implement a specific program to provide follow-up support for VUP beneficiaries, particularly PW and FS beneficiaries. • Use the ongoing revision of VUP-FS to review the FS loan scheme and provide affordable preferential interest rates and other terms to enhance access and uptake by the target beneficiaries, with a focus on rural and urban poor women and out-of-school youth. • Organize training and mentorship support for VUP beneficiaries to conceptualize and implement more appropriate income-generating activities.
CBHI	The increase in the coverage has plateaued and there remains still a population group uninsured.	<ul style="list-style-type: none"> • Push for a “last mile” effort to ensure that all parts of the population that are still uninsured are included in the scheme, including pockets of individuals living in less poor households. In 2016/2017, 90 percent of the total population was covered by the Community Based Health Insurance(CBHI). The government covers the CBHI subscription for the population in Ubudehe category 1. A small portion of people in Ubudehe category 3 and 4 are uninsured. Additional effort is needed to achieve universal health insurance coverage and full access to health services.





6

Annexes

Annex 1. Descriptive statistics based on EICV data for CBHI and *Girinka*

Variable	Obs	Mean	Std. Dev.	Min	Max
Household ID	43 307	140 885.7	47 491.65	100 001	214 580
Cluster (EICV sampling)	38 803	10 644.26	348.663	10 001	11 260
Province	43 307	3.166925	1.318757	1	5
District code	43 307	35.43568	13.45203	11	57
Urban to rural	43 307	1.839518	.3670569	1	2
Household adult equivalent	43 307	4.110328	1.990094	.6999999	20.6
Education expense	43 307	61 641.62	275 505.3	0	1.17e+07
Purchased food expense	43 307	420 339.4	495 913.3	0	9656857
Own food consumption	43 307	196 678.1	214 560.6	0	5 080 374
Weight	43 307	172.1223	72.59669	19.19452	1 673.515
Population weight	43 307	775.5304	504.7377	19.19452	13 388.12
Real consumption per adult equivalent (Jan. 2014 prices)	43 307	311 851.1	514 669.5	7 338.551	2.36e+07
Quintile	43 307	3.160829	1.406788	1	5
Survey	43 307	4.006281	.8167175	3	5
CBHI dummy	43 307	.7594846	.4274014	0	1
Recent medical consult dummy	43 307	.4192394	.4934403	0	1
Simple writing dummy	43 307	.8307202	.3750032	0	1
Has own farm dummy	43 307	.8823054	.3222499	0	1
Simple math dummy	43 307	.5561918	.4968382	0	1
Literate dummy	43 307	.8595839	.3474222	0	1
Girinka dummy	43 307	.0575888	.232967	0	1
NGO cow dummy	43 307	.0909091	.2874831	0	1
Still have Girinka cow dummy	43 307	.0456739	.2087793	0	1
Poverty (3-category)	43 307	2.479484	.7523501	1	3
Female-headed household dummy	43 307	.2636294	.4406058	0	1
Bottom 40% dummy	43 307	.3537996	.4781535	0	1
Health expenditure	43 307	5 195.843	22 715.07	0	1 118 400
Durable asset	43 294	5.524322	5.182356	0	201
Savings account dummy	43 307	.493523	.4999638	0	1
VUP-PW	43 307	.0429954	.202849	0	1
VUP-DS	43 307	.0103678	.1012945	0	1
VUP-FS	43 307	.0422334	.2011234	0	1
Highest educational attainment for age >25	34 913	17.31892	7.453232	1	47
Non-farm business dummy	43 307	.38615	.4868713	0	1
Non-farm salary dummy	43 307	.5052301	.4999784	0	1
Per capita health expenditure	43 266	326.0034	1 701.382	0	70 000
Natural log of real consumption per aggregate expenditure	43 307	12.27936	.7541458	8.900897	16.9764

Annex 2. Technical note for calculating the National Human Development Indices for Rwanda

Using the data available from the Household Living Conditions Surveys (EICVs) and the Demographic and Health Survey (DHS), the sub-national Human Development Index (HDI) was calculated to explore the relationship between HGSs and a composite, district-level indicator of human development. The Index was calculated following UNDP guidelines¹⁵⁰ and methods from past National Human Development Reports (NHDRs), including Ethiopia (UNDP, 2014a)¹⁵¹ and Uganda (2015b)¹⁵²:

$$HDI = \sqrt[3]{(LE * EI * II)}$$

HDI is the geometric mean of the three indexes capturing the dimensions of human development: the Life Expectancy Index (LEI), the Education Index (EI), which uses the mean and expected years of schooling, and the Income Index (II), which can use income or consumption data. The values of these indices are determined from the following equation, using predefined minimum and maximum values:¹⁵³

$$Dimension\ Index = \frac{actual\ value - minimum\ value}{maximum\ value - minimum\ value}$$

Based on the above literature on the calculation of national and sub-national human development indices, the following equations were used to adapt the HDI to both the needs of a sub-national index for Rwanda (e.g. using consumption instead of income) and the availability of data, such as for the Health Index, which is discussed further in Table 1:

$$Life\ Expectancy\ Index = \frac{actual - minimum}{maximum - minimum}$$

$$Consumption\ Index = \frac{\ln(actual) - \ln(minimum)}{\ln(maximum) - \ln(minimum)}$$

$$Education\ Index = \frac{actual - minimum}{maximum - minimum}$$

$$HDI = \sqrt[3]{(LE * EI * CI)}$$

The national HDI calculated here uses a composite of mean adult literacy and mean child enrolment, following Jamal (2016) and previous UNDP HDI methodology¹⁵⁵ for the EI.

TABLE 6.1**Specific data, maximums and minimums, and rationale behind the dimension indices**

Dimension	Data used	Max.	Min.	Rationale
Life expectancy ¹⁵⁴	Regression-based predication of life expectancy using the under-five mortality rate.	80	25	UNDP methodology and Global Data Lab methodology (Grimm et al., 2010; UNDP, 2018d, respectively) for using DHS data, predicted LE from under-five mortality (U5M) using the following model: $LEXP=78.15352097-0.242762177*U5M+0.000498392*U5M$.
Standard of living	Average household consumption per adult equivalent.	Rwf10 000 000	348.663	UNDP methodology (Grimm et al., 2010) uses US\$75 000 max and US\$100 min. Rwandan poverty line as of EICV5 is Rwf159 375.
Education	Weighted average of adult literacy (age >25) and child enrolment (aged 6–24)	100	0	UNDP methodology, following Jamal (2016); averaged with a 2/3 weight for adult literacy and 1/3 weight to child enrolment

Note: Specific data, maximum and minimum, and rationale were combined using a geometric mean to produce the National Human Development Index (NHDl) for each district.

Mean household consumption per adult equivalent is used for the Standard of Living Index. A prediction of life expectancy based on under-five mortality is used for the LEI.¹⁵⁶ Although the authors were careful in following previous methodologies for calculating sub-national HDI using household survey data, it is recommended to be cautious in interpreting the national HDI (Table 6.1). For example, the national-level EI is calculated as follows:

*The education component of the HDI is measured by two indicators: mean years of schooling for adults aged 25 years and older, and the expected years of schooling for children of school-entering age. Estimates for mean years of schooling are based on the duration of schooling at each level of education. Expected years of schooling estimates are based on two factors: enrolment by age at all levels of education and the number of children of school age in the population for each level of education.*¹⁵⁷

Annex 3. Quantitative data sources and limitations

Quantitative data sources

The UNDP background paper 2018 (UNDP, 2018d) uses secondary data to assess linkages between HGSs and human development in Rwanda. These data were compiled following a systematic assessment of existing relevant datasets. The main secondary data used for empirical analysis were collected through statistical surveys administered by the National Institute of Statistics of Rwanda (NISR), specifically the Integrated Household Living Conditions Survey (EICVs 3, 4 and 5), with the Demographic Household Surveys (DHS) providing some supplementary information. Other descriptive and background information was acquired from reports by public institutions and administrative bodies including the Rwanda Governance Board (RGB), the Ministry of Local Governments (MINALOC) and the Rwanda Agriculture Board (RAB) for the respective home-grown solutions (HGSs).

The statistical and empirical analyses pooled cross-sectional and panel data from the EICVs collected in 2010–2011 (EICV 3), 2013–2014 (EICV 4) and 2016–2017 (EICV 5) by NISR. These nationally representative surveys gathered information from 14,308, 14,424 and 14,580 households, respectively, for the three periods. The EICVs enable assessment of the relationships between different policies and household living conditions across the Rwandan population. EICV surveys cover all 30 districts in Rwanda, and data are collected for a wide spectrum of socio-economic indicators, including labour, housing, employment, agriculture, loans, savings, poverty status and consumption expenditures. HGSs beneficiaries are captured through questions to determine whether households received cows from the *Girinka* Program, whether individuals received VUP support directly (VUP-DS) or indirectly (VUP-PW and VUP-FS), or if individuals were insured by CBHI. Because they are not HGSs-specific surveys, *Girinka* and CBHI-beneficiary households are randomly captured. For VUP, a separate panel dataset was produced by NISR for EICVs 4 and 5, which follows VUP beneficiaries in these two survey waves and thus provides a better policy-specific dataset.¹⁵⁸

In EICVs, information is recorded at both individual and household levels in split files. Therefore, data were aggregated at the household level for analysis in this study, for a sample size of 43,307 observations. Within these observations, 32,891 households are insured by CBHI (75.95 per cent of the total pooled EICV sample), and 2,494 households are *Girinka* cow beneficiaries (5.76 per cent of the total pooled EICV sample, and of approximately 297,060 actual total *Girinka*-beneficiary households, according to RGB's 2018 report). Within the main EICV sample, 449 households (1 per cent of the total pooled EICV sample) are VUP-DS beneficiaries; 1,862 households (4.3 per cent of the total pooled EICV sample) contain at least one member who has participated in VUP-PW; and 1,829 (4.2 per cent of the total pooled EICV sample) are VUP-FS loan beneficiaries. However, the VUP panel dataset contains 1,642 households followed from 2013/14 to 2016/17 (EICV 4 to EICV 5, respectively), after subtracting the attrition of 175 households and adding 324 new households.

Limitations

The systematic assessment of existing datasets revealed a number of important data gaps that limited the analyses performed in this study. As discussed throughout the UNDP background paper,¹⁵⁹ future research should take these gaps into account and endeavour to collect data to fill them.

*Since the available data were not meant for an impact evaluation or specific assessment of the HGSs policies, the use of experimental and quasi-experimental methods such as difference-in-difference is limited. This is a particular issue for CBHI and *Girinka*, as the EICV VUP panel dataset*

provides more policy-targeted data for VUP but only between two survey waves.¹⁶⁰ For the main dataset, which was used to assess CBHI and Girinka, different households were selected for interviews, and in some cases, different questions were asked, particularly between EICV 3 and the later survey waves. In brief, when using these data, it is impossible to isolate causality of the policy effect. Some correlations between HGSs and human development can be safely estimated but are not to be overinterpreted because reverse causality and omitted variables may provide misleading results. Correlations, not causal effect, between selected HGSs and their gender and spatial distribution relative to human development indicators can be estimated.

Importantly, future research using additional survey waves should utilize temporally lagged variables for different HGSs depending on the estimated time for policy effect. For example, while the benefits of CBHI may be fairly rapid, as CBHI coverage enables access to health services immediately after enrolment, the standard of living, access to education and health benefits of *Girinka* may take much longer. Utilizing more than three survey waves would be useful for this purpose and enable more nuanced interpretation; for example, the significance of the district panel analysis is reduced and the ability to incorporate time lags is limited by only having three observations per district.

Annex 4. Technical note on econometric modelling specifications

Econometric analysis was performed at two scales: district- and household-level aggregation.¹⁶¹ The following basic spatial regression model was utilized for econometric analysis of the relationship between human development indicators and home-grown solutions (HGSs), adapted for different specifications:

$$\text{Human development}_i = \alpha + X_i + \beta_2 WX_i + \beta_3 HGS_i + \beta_4 WHGS_i + \varepsilon_i$$

A stepwise strategy was employed as a measure to ensure robust coefficients, adjusting the model to remove variables exhibiting collinearity using Pearson's r, and observing changes in coefficients with the addition or subtraction of an additional variable. Additionally, the response variable, was substituted in different specifications to estimate the relationships with HGSs. These included: (i) reported household consumption or other indicators of the relevant human development dimension; and (ii) the household-level human development index (Section 3.2.4). This model structure was also adapted to a log-linear binary logistic regression where response variables were binary (0 or 1). The error term is represented by ε_i , and α denotes the constant. w is a vector of controls, and α denotes a vector of spatial lags of those controls, included as deemed necessary due to spatial autocorrelation by a univariate local Moran's I statistic over 0.40. This was determined using a queen contiguity matrix of the type with $=1$ indicating contiguity between districts i and j , since this was the finest spatial scale available using EICV data. This essentially averages the values of a variable in districts surrounding the district of interest in order to control for spatial sorting and autocorrelation.¹⁶²

$$W_{ij} = \frac{w_{ij}}{\sum_j w_{ij}}$$

Household-level specifications allowed for disaggregated analysis of the relationship between HGSs and standard of living, health and education indicators in addition to rural/urban inequality and gender in terms of female-headed households. The district-level regression analysis enabled panel regression techniques, such as site (district) fixed effects, which were needed to corroborate the findings of the household-level analyses. Although the household-level specifications employ robust spatial regression techniques, they are nonetheless susceptible to endogeneity and omitted variable bias. (see *Limitations* section above or further information regarding the data constraints and identification strategy). Thus, the district-level aggregation provides an important supplementary tool to corroborate and verify trends identified at the household level.

The following fixed-effects model was employed using the district-level panel:

$$\text{Human development}_i = \alpha + X_i + \theta_t + \beta_1 HGS_i + \varepsilon_i$$

where x is a vector of controls, θ is the site-fixed effect, and β_1 is the HGSs parameter of interest. The error term is represented by ε_i , and α denotes the constant. Fixed effects were selected over random effects for the panel regression following a Hausman test ($p < 0.000$).

Policy implementation and local governance structures change between sectors and districts. Therefore, as standard errors are unlikely to be independent across observations between administrative units, standard errors were clustered to the district level to ensure that standard errors are robust to heteroskedasticity.¹⁶³

Annex 5. Household-level regression results

TABLE 1

Results of household-level regression analysis, with indicators of human development as response variables

	1 Consumption	2 Consumption	3 Consumption	4 Log consumption
Community-based health insurance (CBHI)		28 370.69750*** (5 457.53716)	29 250.13705*** (5 729.45445)	0.1754946*** (0.0122421)
<i>Girinka</i>			-57 156.92868*** (8 869.87283)	
CBHI- <i>Girinka</i> Interaction			1 537.82614 (9 899.58471)	
Medical consultation				
CBHI-Medical consult. interaction				
Survey	1 918.87169 (6 956.59268)	1 868.24080 (6 931.37041)	2 788.14735 (6 917.54988)	0.0510679** (0.018431)
Urban/rural	-451 149.90554*** (48 215.28113)	-450 959.5695*** (48 224.07973)	-448 245.83807*** (47 842.52301)	-0.7850185*** (0.071229)
Female-headed households	-34 688.23682*** (8 196.26825)	-34 720.22634*** (8237.43050)	-34 556.60978*** (8 193.72313)	-0.0540625** (0.0142175)
Constant	1 143 206.70137*** (93195.21801)	1 121 520.74172*** (95 011.37662)	1 115 351.91269*** (94 423.25278)	13.39979*** (0.137375)
Spatial	N	N	N	Y
n	43 307	43 307	43 307	43 307
R ²	0.1049	0.1054	0.1060	0.1620

Note: n=43,307 for households over three periods, EICV 3, 4, and 5. To ensure robustness, particularly for models presented in columns 1–3, a stepwise procedure of dropping and replacing variables was employed; coefficients and their signs remained consistent throughout. Low R² for per capita health expenditure (approx. 4%) is possibly a result of the EICV 3 to EICV 4 inconsistency in reported health expenditure, which could be improved by adding another survey wave in future studies. * p<0.05, ** p<0.01, *** p<0.001. Robust standard errors in parentheses.

5 Log consumption	6 Per capita health expenditure	7 Per capita health expenditure	8 Highest HH ed achievement	9 Highest HH ed achievement	10 Durable assets
0.1778293*** (0.0128019)	-257.0294*** (53.39433)	-424.9994*** (62.74018)	0.4323394*** (0.089497)		1.69829*** (0.11315)
-0.137273*** (0.0279428)		-53.16225*** (10.54856)		-0.4397037** (0.1615174)	0.45504* (0.19328)
0.0000893 (0.034968)		-153.3581** (71.8904)			-0.22013 (0.22936)
	782.1311*** (88.98661)	318.208*** (44.40784)			
	-571.7874*** (73.08507)				
0.0533266** (0.018447)	153.3157*** (15.77375)	152.6909*** (16.09926)	0.8038521*** (0.0895703)	0.8102687*** (0.0897886)	-1.94441*** (0.06266)
-0.7783638*** (0.0704539)	-498.2139*** (80.38406)	-500.2706*** (81.2276)	-7.688613*** (0.6852282)	-7.670061*** (0.6820884)	-3.54924*** (0.40033)
-0.0536549** (0.0141654)	-1.970101 (27.37265)	-4.458432 (27.17568)	-0.4664234*** (0.1116912)	-0.4603691*** (0.1114255)	-1.62017*** (0.06194)
13.38452*** (0.1365642)	703.4427*** (172.2162)	830.2789*** (177.9772)	27.89204*** (1.223327)	28.1903*** (1.220523)	18.96460*** (0.85092)
Y	Y	Y	Y	Y	Y
43 307	43 307	43 307	34 913	34 913	43 294
0.1638	0.1395	0.1357	0.1638	0.1634	0.1905

TABLE 2

The *Girinka* Program's relationship with purchased-food consumption and own-food consumption

	Purchased food consumption	Own food consumption
<i>Girinka</i>	-26 399.30489* (10 030.32612)	50 902.00699*** (7 808.14056)
Survey	98 398.55747*** (9 618.15219)	-4 798.07872 (4 398.13555)
Urban/rural	-551 009.28883*** (69 388.38683)	149 322.03146*** (13 779.90232)
Female-headed household	-163 294.75238*** (13 423.60820)	-46 838.94788*** (4 517.20729)
Constant	1 084 288.17399*** (147 338.97516)	-49 363.23155 (30 485.58382)
N	43307	43 307
R-sqr	0.2211	0.1790

Note: *** p<0.01, **p<0.05, *p<0.1. Robust standard errors in parentheses (clustered to district).

TABLE 3**Binary logistic regression models for binary response variables**

	1 Recent medical consultation	2 Recent medical consultation	3 Recent medical consultation	4 Writing outcomes
Community-based health insurance (CBHI)	3.029526*** (0.130086)		2.99854*** (0.133114)	1.476921*** (0.058178)
<i>Girinka</i>		1.174545*** (0.047075)	0.9617198 (0.130629)	
CBHI- <i>Girinka</i> Interaction			1.186633 (0.165419)	
Survey	1.679346*** (0.077519)	1.639143*** (0.073082)	1.67638*** (0.077131)	1.847355*** (0.089100)
Urban/rural	1.045571 (0.055344)	1.027327 (0.052031)	1.040277 (0.054810)	0.7346138*** (0.035024)
Female-headed household	0.7106332*** (0.023636)	0.7230117*** (0.023598)	0.7101513*** (0.023434)	0.4313069*** (0.015084)
Constant	0.0377047*** (0.008059)	0.1008168*** (0.019982)	0.0384173*** (0.008260)	0.7912032 (0.200395)
N	43 307	43 307	43 307	43 307
Pseudo-R ²	0.1660	0.1323	0.1661	0.1654

Note: Probability ratios presented: values >1 represent a positive relationship; values <1 represent a negative relationship. *** p<0.01, **p<0.05, *p<0.1. Robust standard errors in parentheses (clustered to district).

TABLE 4**Results of household-level regression analysis for the bottom 40% of the sample (by consumption), with indicators of human development as response variables**

	1 Consumption	2 Consumption	3 Consumption
Community-based health insurance (CBHI)		4 857.88967*** (438.21191)	4 941.46889*** (461.02442)
<i>Girinka</i>			810.86486 (1 456.68448)
CBHI- <i>Girinka</i> Interaction			1 314.09431 (1 428.39043)
Medical consultation			
Survey	6 396.87269*** (736.59122)	6 423.56781*** (739.11431)	6 428.88033*** (742.75060)
Urban/rural	-3 596.51322* (1 311.04770)	-3 807.25245** (1 357.49947)	-3 804.21119** (1 361.89052)
Female-headed household	-1 970.64692** (607.78859)	-2 022.10547** (604.83074)	-2 023.36527** (602.58155)
Constant	91 725.40699*** (4 086.748)	88 673.76715*** (4 204.114)	88 601.96328*** (4 232.275)
n	(4 204.114)	88 601.96328***	15 321
R ²	(4 232.275)	0.1362	0.1362

Note: . *** p<0.01, **p<0.05, *p<0.1. Robust standard errors in parentheses (clustered to district).

5 Writing outcomes	6 Literacy outcomes	7 Literacy outcomes	8 Savings account access	9 Savings account access	10 Savings account access
	1.454965*** (0.060847)		1.963255*** (0.091131)		1.974248*** (0.090989)
1.353111*** (0.115184)		1.473395*** (0.137172)		1.692699*** (0.115105)	1.988877*** (0.183035)
					1.7886614** (0.072496)
1.836407*** (0.088921)	1.899023*** (0.101905)		1.335982*** (0.058385)	1.319367*** (0.059015)	1.326223*** (0.057826)
0.7260321*** (0.034133)	0.7954693*** (0.049460)	1.886835*** (0.101572)	0.3912859*** (0.060303)	0.3869201*** (0.059010)	0.3816674*** (0.059396)
0.4321936*** (0.015456)	0.4140678*** (0.015616)	0.7839864*** (0.048017)	0.6148146*** (0.016742)	0.6192395*** (0.016582)	0.6131985*** (0.016560)
1.085255 (0.271312)	0.7992007 (0.236379)	0.4144377*** (0.015798)	1.169523 (0.458991)	2.034476 (0.799980)	1.22087 (0.482309)
43 307	43 307	43 307	43 307	43 307	43 307
0.1617	0.1676	0.1647	0.1507	0.1394	0.1530

4 Per capita health expenditure	5 Per capita health expenditure	6 Highest HH ed achievement	7 Highest HH ed achievement
-257.0294*** (53.39433)		0.4129056*** (0.0733974)	
	-17.08075 (19.60709)		0.3355583** (0.1531865)
107.7914*** (11.29355)	73.14196*** (10.72574)		
119.1571*** (8.793767)	124.9177*** (9.428163)	0.3364322*** (0.0529535)	0.3288126*** (0.0540108)
-17.78321 (16.9773)	-23.48031 (16.9346)	-1.230083*** (0.2886809)	-1.230736*** (0.2905326)
-10.2896 (11.44574)	-14.10222 (11.51851)	-0.1293207 (0.0831095)	-0.1190522 (0.0840573)
224.4029*** (47.45208)	320.9541*** (53.45937)	15.30081*** (0.6202704)	15.5939*** (0.6327294)
15 321	15 321	12 112	12 112
0.1464	0.1354	0.125	0.122

TABLE 5**Results of household-level regression analysis for female-headed households in the sample, with indicators of human development as response variables**

	1 Consumption	2 Consumption	3 Consumption
CBHI		29 876.73108* (11 139.99596)	30 641.12399* (11 433.31467)
<i>Girinka</i>			-23 078.82844 (14 807.10509)
CBHI- <i>Girinka</i> Interaction			3 444.83596 (17 711.16041)
Medical consultation			
Survey	17 247.42906* (7 435.26176)	16 849.61089* (7 452.29014)	17 294.06496* (7 503.55860)
Urban/rural	-345 276.75946*** (44 753.21421)	-345027.21149*** (44 688.44310)	-34 4169.94297*** (44 333.71187)
Constant	851 498.64450*** (80 562.75630)	829 907.21694*** (83 575.20644)	827 525.44926*** (82 983.98378)
N	11 417	11 417	11 417
R ²	0.1900	0.1910	0.1912

Note: *** p<0.01, **p<0.05, *p<0.1. Robust standard errors in parentheses (clustered to district).

TABLE 6**Results of household-level regression analysis from the VUP panel dataset, with indicators of human development as response variables**

	1 Consumption	2 Consumption	3 Consumption	4 Log consumption
All VUP		-106477.5***		
<i>VUP-DS</i>			3059.891* (11226.49)	
VUP-PW			-65077.35*** (7883.745)	
VUP-FS			31748.1** (14300.12)	
Community-based health insurance (CBHI)				
Medical consultation				
Survey	2 282.907 (3 750.151)	1 908.556 (22 098.83)	138.5351 (4182.942)	0.014534 (0.015631)
Urban/rural	-29 889.6** (14 340.91)	-33 688.55** (3 892.77)	-27456.00* (15239.59)	-0.107718** (0.0523071)
Female-headed household	1 489.531 (14 322.03)	7 378.87 (13 653.59)	-122.7285 * (11004.4)	0.0580702 (0.0425639)
Constant	236545.4** (74 156.82)	406 029.6*** (13 391.05)	278 751.3** (89 285.19)	12.02583*** (0.2685797)
N	2 798	2 798	2 798	2 798
R ²	0.163	0.237	0.315	0.1112

Note: n = 3,264 for 1,632 households over two periods, EICV 4 and 5. *** p<0.01, **p<0.05, *p<0.1. Robust standard errors in parentheses (clustered to district).

4 Per capita health expenditure	5 Highest HH ed achievement
1746.24*** (337.384)	1.121609*** (0.2076486)
474.2121 (669.6659)	-0.0841376 (0.6934261)
-795.712 (918.3916)	0.5569491** (0.717889)
2438.382*** (439.3173)	
3611.069*** (302.4552)	1.112628*** (0.1500291)
-4797.949*** (1090.986)	-6.401767*** (0.8078731)
-4373.067** (1587.764)	23.29844*** (1.410706)
11417	11417
0.1422	0.1357

5 Log consumption	6 Health expenditure	7 Health expenditure	8 Highest HH ed achievement	9 Durable assets
-0.3505963*** (0.0616876)				
0.0896898** (0.0356039)		-36.78786 (59.53807)	1.428321** (0.3727796)	1.377452*** (0.202793)
-0.2756258*** (0.0338622)		135.9426** (65.93371)	-0.3313483 (0.3397843)	-0.0547489 (0.1673354)
0.1788997** (0.0486625)		-11.70456 (37.35964)	0.4878991 (0.4707557)	2.152676*** (0.3509578)
	-135.7994** (39.88368)	-127.9935** (42.11625)		
	197.8322*** (28.91163)	197.0647*** (29.04305)		
0.0048307 (0.014714)	-34.4611** (11.04331)	-33.8078** (15.48124)	-0.1473654 (0.0985885)	-1.752142*** (0.1034006)
-0.1018223** (0.0471846)	-178.8046* (89.46815)	-191.8742* (94.1085)	-1.547991* (0.8413811)	-1.092014* (0.5410475)
-0.0589871* (0.0342778)	-44.39983 (34.76274)	-26.46623* (47.35745)	-0.076866 (0.3713253)	-1.30944*** (0.195856)
12.48648*** (0.2972888)	1143.942** (336.6483)	1132.01** (388.1359)	21.77521*** (3.05245)	34.24421*** (2.686647)
2798	2798	2798	1973	2798
0.1665	0.183	0.218	0.265	0.3772

Annex 6. Definition of key concepts and terms

Completion rates (CRs) are computed as a percentage of a cohort of children or young people aged 3–5 years above the intended age for the last grade of each level of education who have completed that grade. The intended age for the last grade of each level of education is the age at which pupils would enter the grade if they had started school at the official primary entrance age, had studied full-time and had progressed without repeating or skipping a grade.

Expected years of schooling refers to the number of years of schooling that a child of age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout his or her life.

The **Gender Development Index (GDI)** measures disparities in the Human Development Index (HDI) by gender. GDI is a ratio of female to male HDI and is based on separate HDI measures for men and women.

The **Gender Inequality Index (GEI)** is a composite measure of gender inequality using three dimensions, i.e. reproductive health, empowerment and participation to the labour market. Empowerment is measured by political participation and educational attainment (population having completed at least some secondary education).

The **gross enrolment ratio (GER)** refers to the ratio of total enrolment, regardless of age, to the population of the age group that corresponds to a particular education level. In Rwanda, the age group is 7–12 for the six-year primary education cycle, and 13–18 for secondary education. GER can exceed 100 per cent due to inclusion of over-aged or under-age children, i.e. due to early or late enrolment and repetition of classes.

Gross national income (GNI) per capita is calculated as the aggregate income of an economy generated by its production and its ownership of factors of production, less the incomes paid for the use of factors of production owned by the rest of the world, converted to international dollars using PPP rates, divided by midyear population.

The **Human Development Index (HDI)** is an arithmetic average of three development indices: life expectancy at birth, educational attainment and gross national income (GNI).

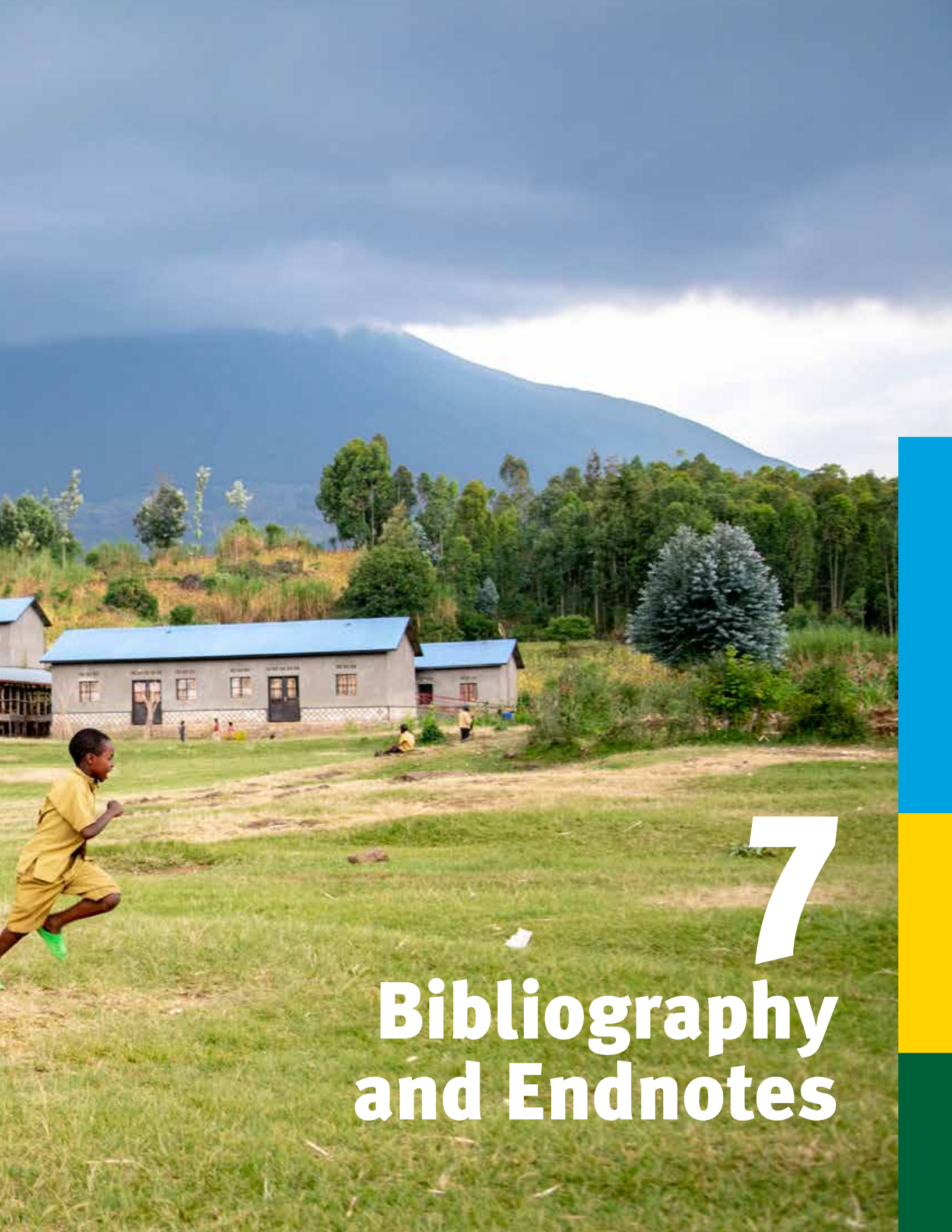
The **Multidimensional Poverty Index (MPI)** captures the multiple deprivations that people face in education, health and standards of living. MPI computes both the incidence of non-income multidimensional poverty (i.e. a head count of people in multidimensional poverty) and its intensity (i.e. the relative number of deprivations that poor people experience at the same time).

Life expectancy at birth refers to the number of years that a newborn infant could expect to live if prevailing patterns of age-specific mortality rates at the time of birth remain the same throughout her or his life.

The **net enrolment rate (NER)** refers to the enrolment of the official age group for a given cycle of education, expressed as a percentage of the corresponding population.

The **transition rate (TR)** is computed as the number of new entrants in a given level of education as a percentage of the learners who were enrolled in the previous level of education in the previous year. Only new pupils entering the next level of education are given consideration; repeaters at this level are eliminated.





7

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Endnotes

- 1 *Ubudehe* refers to the long-standing Rwandan practice and culture of collective action and mutual support to solve problems within a community.
- 2 UNDP (1990).
- 3 UNDP Human Development Report (2013b).
- 4 Langefelder and Cazabat (2016).
- 5 UNRISD, Policy Innovations for Transformative Change, 2016.
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- 7 European Commission (2015).
- 8 UNRISD (2017).
- 9 Ministry of Finance and Economic Planning (revised 2012), Vision 2020, p.9.
- 10 Article 5(4) Law N° 56/2016 of 16/12/2016 establishing the Rwanda Governance Board (RGB) and determining its mission, organization and functioning. Capital letters are added by the author.
- 11 Ibid. Article 5 (5). Capital letters are added by the author.
- 12 Rwanda Governance Board (2018a).
- 13 This is also recognized by major development partners, as highlighted in the following documents: One UN Rwanda, UNDAP (2018–2023); UNDP, Country Programme Document (2018–2023); and World Bank, Country Overview, Rwanda. See www.worldbank.org/en/country/rwanda/overview
- 14 NISR (2015a).
- 15 The districts were Gasabo, Rwamagana, Nyamasheke, Musanze, Rubavu, Gicumbi, Nyagatare, Muhanga and Gisagara. The sectors were Gikomero, Kimihurura, Fumbwe, Gishari, Mahembe, Bushekeri, Gashaki, Kimonyi, Rubavu, Bugeshi, Rubaya, Byumba, Kiyombe, Mímuri, Rugendabari, Mushishiro, Gishubi and Mamba.
- 16 These include: the Participatory Poverty Assessment 1999/2000; the Interim Poverty Reduction Strategy, 2001–2003; Vision 2020, Seven-Year Government Plans (2003–2010; 2010–2017, 2018–2024); and the Independent Evaluation of the PRSP 1, 2006 and PRSP 2.
- 17 Vision 2020, p. 9.
- 18 NISR, National Accounts, Fiscal Year 2017–2018 (2018). Growth in 2018 is limited at Q1 to Q3, to be updated when Q4 and the calendar year GDP report will be available.
- 19 World Bank (2018b), Rwanda Economic Update, December 2018.
- 20 International Monetary Fund, World Economic Outlook, 2018.
- 21 World Bank, Open Data Portal, GDP per capita at current prices and Annual Population Growth, 2018.
- 22 NISR (2018b).
- 23 Ibid.
- 24 Ibid.
- 25 NISR (2018c). Labour Survey, August 2018.
- 26 MINEDUC (2017).
- 27 Ibid (2015b).
- 28 NISR (2018c). Labour Survey, August 2018.
- 29 According to the International Labour Organization (ILO), a decent job relates to opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives, and equality of opportunity and treatment for all women and men.
- 30 World Bank (2014).
- 31 UNDP (2015b; 2015e).
- 32 World Bank (2001); and UNDP (2010).

33. UNICEF Rwanda, Annual Report, 2017.
34. UNFPA (2015).
35. World Bank and Agence française de développement (2018).
36. According to UNESCO (2018), The GER indicates how many children, regardless of their age, are enrolled in primary school, relative to the population of primary school age. The value of the GER can exceed 100 per cent. Values above 100 per cent indicated that some children above or below primary school age are in primary school. A GER above 100 per cent is usually an indicator of overage enrolment, for example due to repetition or late entry. A high GER generally indicates a high degree of participation, whether the pupils belong to the official age group or not. A GER value approaching or exceeding 100 per cent indicates that a country is, in principle, able to accommodate all of its school-age population, but it does not indicate the proportion already enrolled. The achievement of a GER of 100 per cent is therefore a necessary but not sufficient condition for enrolling all eligible children in school. When the GER exceeds 90 per cent for a particular level of education, the aggregate number of places for students is approaching the number required for universal access of the official age group. However, this is a meaningful interpretation only if one can expect the under-aged and over-aged enrolment to decline in the future to free places for pupils from the expected age group.”
37. MINEDUC (2017), Education Statistics.
38. Total number of students in the theoretical age group for a given level of education enrolled in that level, expressed as a percentage of the total population in that age group. A high NER denotes a high degree of coverage for the official school-age population. The theoretical maximum value is 100 per cent. Increasing trends can be considered as reflecting improved coverage at the specified level of education. When the NER is compared with the GER, the difference highlights the incidence of under-aged and over-aged enrolment.
39. World Bank and Agence française de développement (2018).
40. Ministry of Education, Education Statistics 2017 and 2018.
41. UNDP, Human Development Statistical Update (2018b).
42. MINEDUC (2016).
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44. UNDP, Human Development Report 2018.
45. UNDP (2016a).
46. MINEDUC (2016).
47. Law No. 51/2007 of 20/09/2007 determining the responsibilities, organisation and functioning of the Gender. Monitoring Office in Rwanda.
48. UNDP and OPHI, The 2018 Global Multidimensional Poverty Index, 2018.
49. Wealth Accounting and the Valuation of Ecosystem Services, Rwanda. Cited in BIOFIN (2017).
50. NISR, National Accounts, 2019.
51. FAO (2018).
52. The highest population density in Africa 483 per square kilometres, according to the fourth Rwanda Population and Housing Census (2012).
53. MIDIMAR (2012).
54. Future Climate for Africa (2016). Africa’s Climate: Helping decision makers make sense of climate information, Chapter: 11 (Climate & Development Knowledge Network, 2016).
55. Ibid.
56. Ibid.
57. Carvajal-Velez (2007).
58. REMA (2015).
59. Ibid.
60. For example, the Western Province accounts for 42 per cent of all food-insecure households in Rwanda yet its share of the population is only 22 per cent. In 2012, 37 per cent of its households were food-insecure, which only declined marginally to 35 per cent in 2015. In contrast, only 3 per cent of households in Kigali City are classified as food-insecure. Rwanda Comprehensive Food Security, Vulnerability and Nutrition Assessment 2012 and 2015.
61. Government of Rwanda (2011).
62. The policy is still under revision as of March 2019.

63. GEF (2017).
64. FONERWA (2018).
65. Energy Sector Strategic Plan (2018–2024), MININFRA (2017).
66. Ibid.
67. Huye, Muhanga, Nyagatare, Rubavu, Musanze and Rusizi.
68. National Roadmap for Green Secondary City Development, MININFRA/GGGI (2015).
69. UNDP/MINIRENA, 2017.
70. REMA (2018) Inventory of Sources of Air Pollution in Rwanda.
71. Ingabire (2013).
72. Ruberangeyo et al. (2006).
73. Rwanda, Ministry of Agriculture and Animal Resources, Guidelines No. 001/2018 of 13/07/2018 (2018).
74. RGB (2018).
75. Government of Rwanda, Vision 2020 *Umurenge* (2007).
76. LODA (n.d.).
77. Ibid.
78. Ibid.
79. VUP Expanded Public Works Guidelines (LODA, 2017).
80. Social Protection Strategy (MINALOC, 2013).
81. EDPRS 2 (MINECOFIN, 2013).
82. Joint Sector Review Report, 2018.
83. UNICEF (2018).
84. LODA (2016).
85. Kalisa et al. (2015).
86. Other insurance schemes in place include Rwandaise d'Assurance Maladie (RAMA) , mainly for public and formal private sector workers, Military Medical Insurance (MMI) for the armed forces, and other private sector schemes that mainly target wealthy people.
87. The Government pays RWF3,000 for Ubudehe Category 1 beneficiaries, of which RWF1,000 remains in the National Risk Pool and RWF2,000 go to RSSB as the proper CBHI premium. The payment is made in instalments.
88. Collins, Saya and Kunda (2016).
89. Gishari sector, Gisagara district reported 100 per cent CBHI coverage for 2017/18, and Gishari sector, Rwamagana district recorded 99 per cent for 2017/18 (interviews with Executive Secretaries of the respective sectors).
90. Kalisa et al. (2015).
91. MINALOC. Revised *Umuganda* Policy and Strategy, 2017–2022 (2017a). Ibid.
92. Ibid.
93. Ibid.
94. The district technical team is headed by the District Executive Secretary and comprises Heads of Departments/Units.
95. The bottom 40 per cent refers to the households that are part of the group with the lowest standards of living in a given country. The cut-off is made at the level that encompasses 40 per cent of the population.
96. RGB (2018b).
97. NISR, EICV 5 Rwanda Poverty Profile Report 2016/17 (2018)
98. RGB (2018b).
99. NHDR background paper (2018).
100. See, for example, RGB (2014).
101. International Growth Centre (2014).

102. A multisectoral program to reduce stunting financed with US\$55 million from the World Bank was launched by the Prime Minister in May 2018, including a strong component of social protection that builds on and expands the existing VUP scheme. This intervention follows a relatively successful multisectoral strategy to prevent malnutrition coordinated by the Ministry of Health in 2013, and other interventions supported by UNICEF, USAID and other partners. Eliminating stunting is a high priority of the Government and most of its development partners.
103. Nilsson et al. (2017).
104. Ibid.
105. RGB (2018b).
106. Ezeanya-Esiobu (2017: 20).
107. See the table in the annexes or the NHDR background paper 2018.
108. LODA (2016).
109. MINALOC (2017b).
110. LODA (2017b).
111. MINALOC (2011).
112. NISR (2018e).
113. A regression analysis of the EICV 3 and 4 data reveals a significant reduction in health spending.
114. Impact Assessment Report on *Umuganda* (RGB, 2017).
115. RGB (2017).
116. This is based on the community meetings, FGDs and interviews with local officials in the six districts where discussions on the *Girinka* Program were held.
117. MINECOFIN (2017: 18).
118. NISR (2018a).
119. As a result, even subscribers in wealthier households, i.e. category 4 who may have the option of using private health facilities even if they are enrolled in CBHI, are also using public health facilities.
120. The regression analysis of EICV 3 and 4 results shows a positive association of CBHI with increased medical consultation (0.25591, $p < 0.01$), and a negative association with mean household expenditures on health (-36.09, $p < 0.05$).
121. UNDP, NHDR background paper (2018).
122. Ibid.
123. Kalisa et al. (2015).
124. Ibid.
125. UNDP, NHDR Background paper (2018d).
126. www.un.org/en/development/desa/news/policy/perspectives-on-social-cohesion.html (2012).
127. Rwanda Governance Board, Rwanda Reconciliation Barometer (2016).
128. UNDP NHDR background paper (2018d).
129. Ibid.
130. EICV 5 - Rwanda Poverty Profile Report 2016/17 (2018); District Poverty Profiles (2013/14), NISR.
131. UNDP, NHDR background paper (2018d).
132. Ibid.
133. Ibid.
134. Collins et al. (2016: 18).
135. NST (2017–2024), Governance Pillar objective.
136. For instance, Gicumbi district set a target to increase the number of farmers with membership in the Twigire Muhinzi extension model from 65 to 74 per cent in the 2016/17 *Imihigo*. However, the AHS 2017 (NISR, 2018f) reported only a 10.4 per cent membership in Twigire Muhinzi. Similarly, the *Imihigo* for 2013/14 set to increase the use of mineral fertilizers from 49 to 70 per cent, but the AHS four years later found that only 17.6 per cent of farmers were using mineral fertilizers.
137. Agricultural households are considered those whose main economic activity is agriculture and constitute

- 80.2 per cent (2.1 million) of all households in Rwanda. They are both rural and urban.
138. RBG (2018b).
139. UNDP, Human Development Report 2015. Work for Human Development (2015).
140. *Umuganda* Annual Report, 2017–2018. (MINALOC, 2018b).
141. The *Girinka* Guidelines stipulate, *inter alia*, that that persons selected to receive a Girinka cow must, among other criteria, be of integrity and good standing in the community.
142. UNICEF (2018a).
143. RBG (2016b).
144. For instance, *Girinka* is designed and coordinated through the Rwanda Agricultural Board (RAB); VUP is coordinated by LODA; CBHI is managed by the Rwanda Social Security Board (RSSB); and *Umuganda* is directly coordinated by the Ministry of Local Government (MINALOC).
145. NISR, Rwanda Comprehensive Food Security, Vulnerability Nutrition Assessment Reports 2006, 2009, 2012 and 2015.
146. Ibid (2015a).
147. Ibid (2012a; 2015a).
148. NISR, Labour Force Survey August 2017 (2017).
149. Examples include how many cows have been given out, given birth or passed on to others; how much money has been disbursed to or recovered from beneficiaries of VUP-FS, what percentage of households have subscribed to CBHI, or how many *Imihigo* targets have been realised by each district.
150. UNDP (2014b).
151. UNDP NHDR Ethiopia (2014a).
152. UNDP NHDR Uganda (2015b).
153. Ibid.
154. Two versions of the UNDP (2014b). The Life Expectancy Indexes (LEs)LEs were calculated for both. Because only DHS 2010 and 2014 were available at the time of this study, for the EICV 5 period (2016–2017), the authors first calculated SHDI using the DHS 2014 U5M life expectancy prediction copied twice for EICV 4 and 5. This still captured spatial variation, but not the temporal variation. The Global Data Lab (GDL) U5M predictions for 2017 were then used to predict LE. This captured both spatial and temporal variation but was a life expectancy prediction based on a U5M prediction. The first version is presented in this study, and the second version is included in Appendix II.
155. UNDP (2018a).
156. Grimm et al. (2010); UNDP (2015f).
157. UNDP (2014b).
158. See NISR’s EICV 5 report for further information on the methodological approach and research design used by NISR for conducting the EICVs, including survey weighting strategies (NISR, 2018b). Further information regarding the distinctions between the cross-sectional data for VUP within the standard EICV datasets and the VUP panel datasets can be found in the EICV5 VUP Report from NISR (NISR, 2018b).
159. UNDP (2018d).
160. In using the VUP panel dataset, the authors encountered difficulty with duplicate household identifiers from the EICV 4 VUP panel dataset when merging covariates into the EICV 5 panel. These issues should be reviewed for future uses of the VUP panel datasets.
161. Since there is no consistent identifier for the same households interviewed between EICV 3 and EICV 4, matching households between periods of the EICVs was attempted, but policy effect isolation was extremely limited.
162. Anselin (1988; 2018).
163. Stock and Watson (2006).
164. HDRO calculations based on data from the HDRO website: <http://hdr.undp.org/en/content/gni-capita-ppp-terms-constant-2011-ppp>



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