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Rwanda Economic Update

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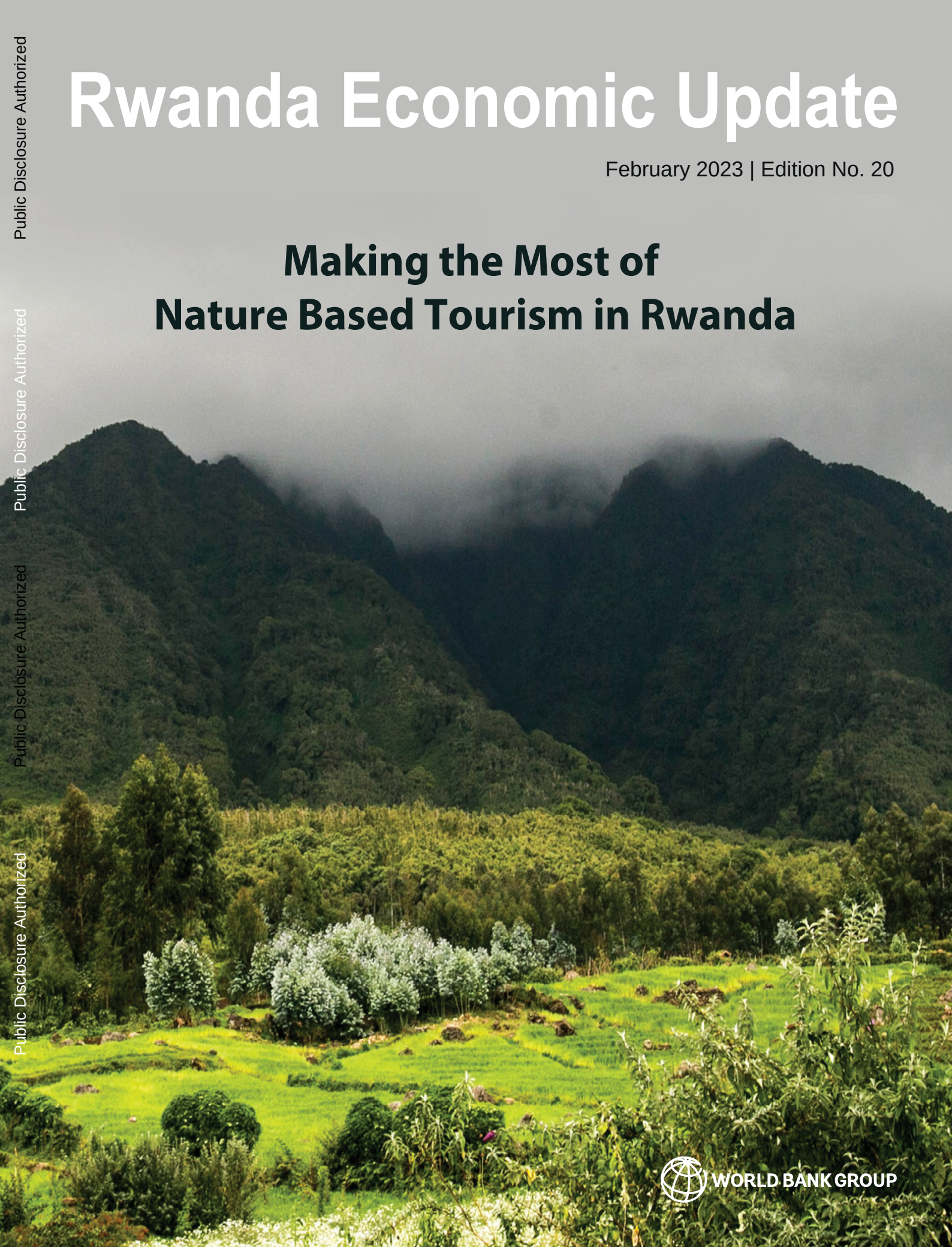
Making the Most of Nature Based Tourism in Rwanda



WORLD BANK GROUP

Rwanda Economic Update

Making the most of
Nature Based Tourism in Rwanda

February 2023

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ACRONYMS

ANP	Akagera National Park
BIOFIN	Biodiversity Finance Initiative
CAR	Capital Adequacy Ratio
CBD	Convention on Biological Diversity
CBR	Central Bank Rate
CBO	Community Based Organization
CGE	Computable General Equilibrium
CMPs	Collaborative Management Partnerships
COP	Conference of the Parties
CPI	Consumer Price Index
DMAs	Destination Management Areas
DRC	Democratic Republic of the Congo
EMDEs	Emerging Markets and Developing Economies
ERF	Economic Recovery Fund
FDI	Foreign Direct Investment
FRB	Forest Resilience Bonds
FY	Fiscal Year
GDP	Gross Domestic Product
GGCRS	Green Growth and Climate Resilient Strategy
GoR	Government of Rwanda
HHI	Herfindahl–Hirschman Index
HWC	Human-Wildlife Conflict
IFC	International Finance Corporation
LCR	Liquidity Coverage Ratio
LFS	Labor Force Survey
MPC	Monetary Policy Committee
NBR	National Bank of Rwanda
NBSAP	National Biodiversity Strategy and Action Plan
NISR	National Institute of Statistics of Rwanda
NPL	Non-Performing Loans
NSFR	Net Stable Funding Ratio
NST	National Strategy of Transformation
NBT	Nature-Based Tourism
NNP	Nyungwe National Park
PA	Protected Area
PES	Payment For Ecosystem Services
PPP	Public-Private Partnership
PRSC	Project Revenue Sharing Committee
PSNP	Productive Safety Net Program
RDB	Rwanda Development Board
SDG	Sustainable Development Goal
SGF	Special Guarantee Fund
SSA	Sub-Saharan Africa
TRS	Tourism Revenue Share
TRSP	Tourism Revenue Sharing Program
UNFCCC	United Nations Framework Convention on Climate Change
UNWTO	UN World Tourism Organization
VNP	Volcanoes National Park
WBG	World Bank Group
WTTC	World Trade and Tourism Council

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The Rwanda Economic Update (REU) analyzes recent economic developments and prospects, as well as Rwanda's policy priorities. The REU is intended for a wide audience of policymakers, business leaders, other market participants, analysts of Rwanda's economy, and civil society. It draws on data reported by the Government of Rwanda and additional information collected by the World Bank Group in its regular economic monitoring and policy dialogue.

Published twice a year, each issue has a special feature spotlighting a particular topic. The 20th edition of REU focuses the role of nature-based tourism in the Rwandan economy. The current edition, led by Calvin Zebaze Djiofack (Senior Economist), Peace Aimee Niyibizi (Economist) and Diji Chandrasekharan Behr (Lead Environmental Economist), is a collective endeavor and involved staff from several parts of the World Bank. The team includes Yacob Wondimkun Endaylalu (Senior Environmental Engineer), John Kalisa (Consultant), Elisson M. Wright (Senior Environmental Finance Specialist), Peter Katanisa (Consultant), Erwin R. Tiongson (Senior Consultant), Lulit Mitik Beyene (Senior Economist), Hassan Dudu (Senior Economist); Irving Rodolfo Mc Liberty Zurita (Consultant), and Anna Spenceley (Consultant). The team is grateful to Philip Schuler (Lead Economist) for invaluable inputs on the structure and messaging of the report.

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Views expressed in the REU are those of the authors and do not necessarily reflect the views of the World Bank Group, its Executive Directors, the countries they represent, or the Government of Rwanda.

ABSTRACT

The Rwandan economy continued to achieve strong growth in 2022 in the face of weakening external demand and restrictive monetary policies required to control inflation. Rising food prices particularly affected the poor, who devote a large share of their spending to food and appear to have faced higher food inflation than richer households did. Growth is expected to decline somewhat in 2023 and then to recover closer to historical rates over the medium term. Tourism is a major source of Rwanda's foreign exchange earnings and tends to generate a higher proportion of formal sector jobs than other sectors and could make a substantial contribution to growth. Within tourism, strengthening the provision of nature-based tourism, which accounts for 80 percent of leisure and conference visitors in Rwanda would also help protect biodiversity and advance Rwanda's efforts to adapt to climate change. Nature-based tourism faces significant challenges, including potential limits on expansion of revenues from one of the primary international attractions - gorilla trekking, degradation of the natural assets that underpin the sector, risks presented by infectious diseases, habitat change and overexploitation, and the impact of climate change on tourism demand. Key measures to promote nature-based tourism will need to include expanding the network of protected areas and improving management of the natural assets within and outside protected areas and diversifying the nature-based tourism's offering while complementing efforts to diversify tourism activities. Efforts are required to enhance revenue sharing mechanisms to increase incentives for local communities to conserve natural assets and unlock new opportunities and community-led enterprises that generate revenue from tourism and sustainable management of natural resources, including forests. This is essential to address poverty, to mitigate poaching threats, other illegal activities, and reduce unsustainable exploitation of resources. It is also imperative to secure private sector participation in financing and operation of facilities by introducing innovative financing methods to secure the necessary investment, strengthening capacity and management of tourism facilities and services, and removing subsidies that contribute to environmental degradation.

EXECUTIVE SUMMARY

Rwanda's economy grew strongly despite global headwinds

Rwanda's strong growth continued in 2022. GDP increased by 8.4 percent in the first three quarters of 2022 (year-on-year), down 2.5 percentage points from the strong recovery in 2021 but only a half a percentage point slower than the average of the two years before the pandemic. Spurred by the revival of tourism, the services sector drove growth, while industry and agricultural sectors saw their growth eased, largely owing to a decline in construction and as poor weather and the rising price of fertilizers respectively. On the demand side, growth was mainly driven by the private consumption. Employment indicators improved in the third quarter, to levels similar to those at the beginning of the pandemic. However, the improvement was much more significant for men than for women, whose unemployment rate remained much higher, and labor force participation rate much lower, than that of men.

Affected by the global commodity price increase, the current account deficit remained high. Rwanda's imports rose to 39.3 percent of GDP in the first three quarters of 2022. The prices of Rwanda's commodity exports also increased, and export earnings reached 22.4 percent. On net, the trade deficit was 16.9 percent of GDP in the first three quarters of 2022, 0.6 percentage points higher than in the same period of 2021. Despite increases in grants and remittances, the current account deficit remained high at 11.1 percent of GDP in the first three quarters.

Inflation rose sharply prompting the National Bank of Rwanda to raise its policy rate to a level lastly seen in 2016. Urban inflation, the price index normally used to judge monetary developments, rose to 21.7 percent (y-o-y) in November 2022. The war on Ukraine increased commodity prices, while the poor harvest in Rwanda gave a further boost to food prices. To control inflation, the National Bank of Rwanda increased the central bank rate in three steps during the year, for a total increase of 200 basis points, as well as the reserve requirement ratio.

GDP growth is expected to slow in 2023, but to pick up in the medium term. While tourism is likely to continue to recover, external demand is likely to weaken as a result of major central bank efforts to reduce inflation. Real GDP is projected to rise by 6.2 percent in 2023, well below the average of 7.4 percent in the five years before the pandemic. The government is committed to undertaking fiscal consolidation in the next year, including reforms to increase revenues from income and value added taxes. Higher revenues, coupled with expected improvements in spending efficiency, should enable an increase in public investment spending in 2024–25 to support an acceleration of growth to 7.5 percent. This outlook is subject to significant downside risks, including a prolongation of a challenging global environment, with higher inflation, ever tighter policy rate, financial stress, deeper weakness in major economies, which could limit external demand, lower availability of concessional resources, and the potential for severe climate and weather-related shocks.

Rising food prices may have exacerbated poverty and food insecurity

The poor in particular are suffering from by food price inflation. Lower- income households tend to devote a larger share of their spending to food, and also appear to have faced higher rates of food inflation, compared to higher- income households. Measures adopted by the government to mitigate the impact of inflation on poor and vulnerable households over the past year include an increase in subsidies (primarily on fuels, fertilizers, seeds and public transit), increased spending on social protection, increases in teachers' salaries and

in government contributions to school feeding programs, and efforts to find alternative sources or substitutes for food products whose prices were increasing rapidly.

Further steps are required to protect the poor and vulnerable from the impact of rising food prices. Short-term measures could focus on increasing resources devoted to social protection programs. Key areas could include increasing the coverage of the Nutrition Sensitive Direct Support and Public Works programs, securing financing for the emergency cash transfers, providing emergency support to agricultural production, increasing the coverage and improving targeting of school feeding, and strengthening policies to address food insecurity and prevent child stunting, particularly expanding the role of early childhood development centers. Over the medium to long term, a key guide for policy improvements will be to help build resilience. Improving the adaptability of social safety nets and social insurance to crises would limit the damage to human capital and physical assets of the poor in response to sudden declines in income.

Adequate fiscal space to respond to future crises should be maintained. This could be done for example, through rescinding tax reductions adopted in response to the COVID-19 pandemic, developing a medium-term revenue strategy and undertaking an assessment to determine feasible reductions in tax expenditures. Future tax strategy also should be guided by efforts to minimize the impact on the poor of revenue increases, for example by adopting health/sin and carbon taxes and making income taxes more progressive. Revenue reforms should be accompanied by improvements in the design and efficiency of the public investment program.

Nature-based tourism holds tremendous potential for increasing growth in Rwanda

Nature-based tourism (NBT) has grown rapidly, but future growth faces important challenges. NBT, or tourism to experience natural resources in a wild or undeveloped form, is estimated to have constituted 80 percent of the visitors entering Rwanda for leisure or conferences. NBT plays an important role in job creation: for every US$1 million (about Rwf1,050 million) that NBT activities inject into the economy, an additional 1,328 new jobs are created. Tourism tends to provide higher-quality jobs than many other sectors, as the accommodations and food sector has a larger share of formal jobs and of women workers than in the rest of the economy, and through NBT can create employment and income opportunities in rural areas.

The current characteristic of NBT in Rwanda constrains its expansion. A significant portion of NBT foreign exchange revenue comes from tours to view gorillas in their natural habitat. These tours face competition from other destinations for gorilla viewing and restrictions on number of permits because of the need to preserve the habitat and population of gorillas, limiting Rwanda's ability to raise prices or increase the number of tourists involved. Thus, as part of Rwanda's efforts to diversify tourism, it will be important to expand the country's NBT offerings. NBT also faces other significant risks. Environmental degradation, particularly the ongoing decline in natural vegetation and the deterioration of forests, threatens the natural habitat important for wildlife populations. A decline in the economic condition of surrounding communities exacerbates

pressures on protected areas (PA). In addition, external factors, such as infectious disease emergencies, can result in the dramatic decline in demand for tourism, including NBT, as illustrated by the COVID-19 pandemic. Similarly, warming temperatures, resulting from climate change, if unmitigated, are likely to reduce the demand for tourism to tropical areas and further degrade natural habitats.

Vigorous efforts are required to diversify and expand NBT. The Rwanda Development Board's program for the recovery of tourism following the COVID-19 pandemic focuses on increasing and managing demand, diversifying tourism attractions, and strengthening capacity and management. This is central for strengthening NBT considering constraints to expanding gorilla trekking. New NBT activities need to be developed alongside efforts to expand tourism, including water-based, urban and adventure tourism. It will be important to modify policies that harm biodiversity, for example by removing subsidies that damage the environment, and to promote private sector provision of environmental benefits and participation in nature-based tourism activities (e.g., through concessions and co-management practices). Expansion of the network of PAs should be complemented with opportunities to sustainably manage surrounding natural resources, including forests, and the establishment of biodiversity corridors between PAs.

For NBT to succeed benefits must be shared with local communities and current efforts should be intensified. Poverty in communities bordering PAs encourages poaching, other illegal activities, and the exploitation of forests out of the need to survive. The government has a robust program to share 10 percent of tourism revenues with poor and disadvantaged groups close to PAs, while five percent of tourism revenues is devoted to a fund to prevent human/wildlife conflict. Revenue-sharing schemes with communities and local landowners could be expanded, and funds from the Tourism Revenue Sharing Program (TRSP) should be devoted to responding to the needs of communities surrounding PAs, with provision for local management of these resources. The Government plans to undertake various improvements in revenue sharing policies, including revenue allocation, project preparation and selection, implementation and monitoring and evaluation. Innovative approaches to ensuring that NBT benefits local communities include engaging with the private sector to create opportunities for the poor, joint ventures, employment of local staff, and business linkages with local entrepreneurs.

Involving private sector investment is critical to promoting NBT in Rwanda. It is forecast that a total financing of US$97.5-107.7 million is required for sustainable management of the natural resources, ecosystems, and biodiversity that underpin NBT from 2019-2030. It will be important to rely on diversified sources of financing for both the public and private sector, including debt and non-debt instruments, and to establish the policy framework required to encourage investment in NBT. A Computable General Equilibrium (CGE) model-based analysis finds that increasing investment in natural capital to support NBT would improve fiscal sustainability and growth, whether the resources are primarily provided by public or private sources. However, encouraging more private investment in NBT through public-private partnerships would raise GDP by more than if only public resources were relied on. The private sector can be involved in NBT activities most efficiently through outsourcing investment and provision of management services in state owned PAs, or licensing commercial activities adjacent to these areas. Sustainability-linked financing instruments, non-debt solutions tied to carbon markets and private sector-led equity investments have been used to access private finance for NBT. Bonds have been issued based on conservation activities or green investments, funds established to support biodiversity and climate change adaptation and to prepare for catastrophes, and payments have been made to reward reductions in emissions through avoided deforestation and forest degradation.

PART ONE

RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

1.1. Global and regional recent economic developments

The global economy is slowing. Central banks have tightened monetary policy in reaction to rising inflation driven by the war on Ukraine's impact on commodity prices and by supply chain disruptions. Developing countries are facing tighter financing conditions that have constrained growth, with prospects for a continued decline in growth rates in 2023. Rising commodity prices have exacerbated food insecurity in sub-Saharan Africa (SSA), while slowing growth and narrowing fiscal space hamper governments' ability to support the poor. Growth in SSA is expected to recover slightly over the next two years, although this outlook faces significant downside risks.

A series of shocks undermined global economic conditions throughout 2022, derailing the recovery. The Russian invasion of Ukraine and subsequent sanctions disrupted world markets, most notably through sharply raising global commodity prices. Very high inflation has triggered unexpectedly rapid and synchronous monetary policy tightening around the world to contain it, including across major advanced economies. This has translated into tighter external financing conditions and financial stress for some emerging markets and developing economies (EMDEs). Global growth has slowed to the extent that the global economy is perilously close to falling into recession—defined as a contraction in annual global per capita income—only three years after emerging from the pandemic-induced recession of 2020. The World Bank's January 2023 Global Economic Prospects estimates that the global growth at 2.9 percent in 2022 from 5.9 percent in 2021.[1] For 2023, the world economy is expected to expand even more slowly, at 1.7 percent, reflecting continued synchronous policy monetary tightening to contain elevated inflation, worsening financial conditions, and continued disruptions from the war on Ukraine.

Sub-Saharan Africa's recovery was interrupted in 2022. Weakening external demand and tightening global financial conditions dampened regional activity. Soaring food and energy prices, stemming partly from the war on Ukraine, triggered sharp cost-of-living increases across the region, leading to millions more people falling into food insecurity and poverty. Global demand for many nonenergy commodities softened, adversely affecting the region's exporters of industrial metals. Fiscal space needed to protect the poor has been depleted in many countries, while rising borrowing costs and muted growth prospects have sharply worsened debt dynamics. Regional economic growth slowed to 3.4 percent in 2022 and is projected to edge up in 2023 only to 3.6 percent, before picking up to 3.9 percent in 2024. Risks are tilted to the downside. A more pronounced weakness in major economies, further increases in global interest rates, higher and persistent inflation, fragility, and increased frequency and intensity of adverse weather events could further slow growth across the region, exacerbating poverty and leading to debt distress in some countries.

1.2. Rwanda's economy appeared resilient amid multifaceted challenges

Despite a challenging environment, Rwanda's economic has shown some resilience in 2022 thanks to the revival of tourism. GDP growth is estimated to have reached at about 8 percent in 2022, mainly driven by the services sector powered by the recovery in tourism-related sectors. However, rising inflation, due to continued disruption in global supply chains and poor performance in agriculture, posed some risks to the economy, especially to vulnerable households. This prompted the National bank of Rwanda to tighten its monetary policy. Despite higher inflows of grants and remittances, the current account deficit remained wide, affected by global commodity markets shocks.

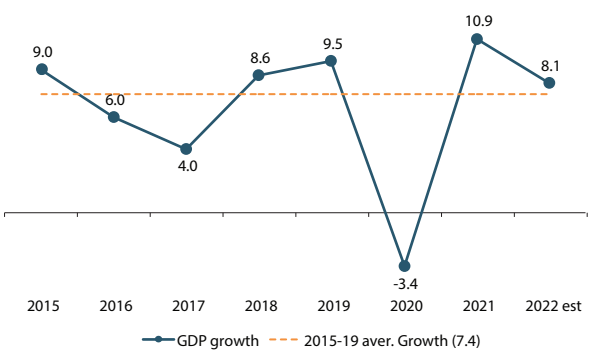
[1] WB (2023). Global Economic Prospects: A Second Year of Sharply Slowing Growth. Available here

Real sector developments

Rwanda's economy showed resilience in 2022 despite the challenging environment. After a strong recovery in 2021, Rwanda's economy encountered multi-faceted challenges. Externally, the economy experienced setbacks stemming from the slowdown in global growth, and rising global inflation exacerbated by spillovers from the war on Ukraine. The war on Ukraine has triggered a slowing global recovery from the pandemic-induced recession of 2020, elevated inflation—driven by a combination of surging commodity prices and persistent supply disruptions. Rwanda's economy was hit through higher oil prices, which are not only increasing the import bill of energy products, but also raising transport costs of all other imported items, including food items. Domestically, agriculture underperformed due to unfavourable weather conditions coupled with less use of inputs like fertilizers as a consequence of higher prices linked to global supply chain disruptions. Despite these challenges, Rwanda's economy has shown some resilience and it is estimated that Rwanda's economy expanded by about 8 percent in 2022 (Figure 1.1). This is higher than what was expected in the 19th edition of Rwanda economic update (REU19) for two main reasons. First, the economy has reported strong growth in the second and third quarter of 2022, which were released after the publication of the 19th edition of the REU. Second, the economic activity has maintained a strong momentum in the fourth quarter of 2022 as pointed out by some early indicators show. Provisional data of NBR's quarterly composite economic index indicate an 8.8 percent increase year-on-year in the fourth quarter. The industrial production index reports an 8.0 percent increase year-on-year in the same period.

Real GDP growth was powered by resilient private consumption amid inflation pressures. By growing at 8.8 percent year-on-year in the first three quarters, private consumption generated more than 70 percent of the overall GDP growth for the period (Figure 1.2). Strong growth in private consumption was mainly supported by the recovery in tourism activities and linked activities such as transport, which generate a higher proportion of non-agricultural jobs. While appearing resilient, private consumption continued to be hampered by high inflation, which reached 21.7 percent and 42.9 percent in urban and rural areas, respectively, in the year to November 2022. By growing by 14.2 percent, government consumption generated about 29 percent of GDP growth in the first three quarters of 2022. Investment, i.e., gross capital formation, declined 7.4 percent in the first three quarters, reflecting reduced public investment and weaker private investment activity amid rising prices and heightened global uncertainties. Although net exports continued to be negative, their contribution to growth became positive as export growth largely outpaced that of imports.

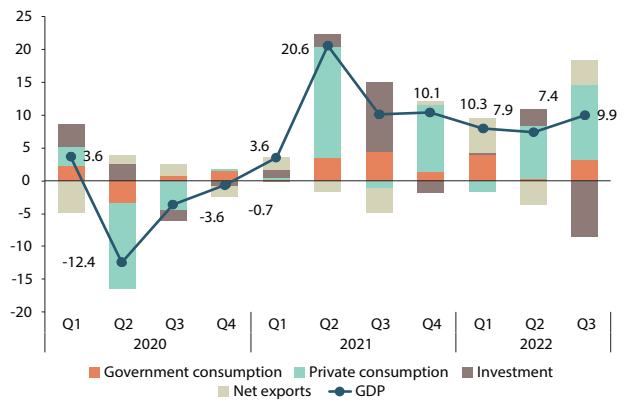
Figure 1.1: Rwanda GDP growth: actual vs historical average



Source: WBG staff computation based on National Institute of Statistics of Rwanda (NISR) databases

Figure 1.2: GDP – expenditure

(Percentage points)

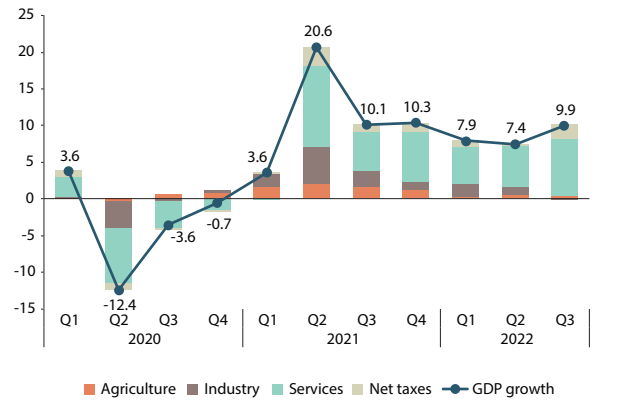


Source: WBG staff computation based on NISR GDP quarterly publications

Supported by strong resumption in tourism and related activities, the services sector was the main driver of real GDP growth in the first three quarters of 2022 (Figure 1.3). The output in the services sector has expanded by double digits for six straight quarters since the second quarter of 2021—making a 13.1 percent rise in the first three quarters of 2022. Growth in services output accounts for about 70 percent of GDP growth. This strong performance was mainly driven by three sub-sectors—hotel and restaurants, trade and transport—that generated more than 55 percent of the overall services growth and more than 40 percent of the real GDP growth. As Rwanda has relaxed its COVID-19 restrictions, available data show that the number of tourist arrivals more than doubled in the first eight months of 2022 compared to the same period of 2021—a reversal of its 2-year declining trend—but remained at less 60 percent of pre-pandemic levels. This trend has boosted output in hotel and restaurants services—increasing by 114.3 percent year-on-year in the first three quarters of 2022—to surpass its pre-pandemic output level by about 33 percent. The resumption of growth in the tourist sector was also beneficial to other services, mainly transport and trade. Output in trade services (wholesale & retail trade), the second most important driver of services and overall GDP growth rates, expanded by 19.4 percent, year-on-year, in the first three quarters of 2022. The output in transport services expanded by 24.2 percent in the first three quarters of 2022. All other services contributed positively to the growth of services and of overall GDP.

Figure 1.3: GDP – production

(Percentage points)



Source: WBG staff computation based on NISR GDP Quarterly publications

Industrial growth declined in the first three quarters of 2022, as construction activities ebbed. After strong growth in 2021, construction activities gradually eased in the first three quarters of 2022. This primarily reflected high base effects from last year's government construction projects to support the economic recovery, as well as a reduction in public investment undertaken as part of a fiscal consolidation to preserve fiscal space for social sectors amid inflationary pressures. Construction declined by 4.1 percent in the first three quarters of 2022, down from 15.1 percent growth in 2021. On the other hand, mining activities continued to benefit from high mineral prices on international markets and expanded by 9.0 percent in the first three quarters of 2022. In the first three quarters of 2022, the price index for metals and minerals, such as iron, was about 150 percent higher than its 2020 level. The manufacturing sector expanded by 10.0 percent in the first three quarters of 2022, largely driven by food and beverages production. With this mixed performance, industrial output increased by 4.8 percent in the first three quarters of 2022, down from 13.4 percent in 2021.

The agriculture sector experienced poor performance in 2022, undermined by high costs of inputs due to trade disruptions as well as unfavorable weather conditions. After reaching 6.4 percent in 2021, growth in agricultural output slowed to 1.4 percent in the first three quarters of 2022. Higher fertilizer prices and unfavorable weather conditions affected agricultural production. Food crop production, representing 63.6 percent of the agriculture sector, declined by 1.0 percent in real GDP terms and by 2.1 percent in metric tons (i.e., volumes produced). Prices of vegetables represent about 58.8 percent of the urban food inflation and 76.2 percent of the rural food inflation. Output of Rwanda's export crops declined in the first three quarters of 2022. On the other hand, livestock and related products expanded by 9.0 percent, partially offsetting bad performance in the production of food and export crops.

Table 1.1: Rwanda's gross domestic product
(Real growth in percent, year-on-year)

	2019	2020	2021	2022			3Qs-2021	3Qs-2022
				Q1	Q2	Q3		
Gross domestic product	**9.5**	**-3.4**	**10.9**	**7.9**	**7.4**	**9.9**	**11.1**	**8.4**
Production side								
Agriculture	**5.0**	**0.8**	**6.4**	**0.7**	**2.0**	**1.5**	**6.8**	**1.4**
Food crops	4.0	0.4	6.7	-1.3	-1.3	-0.5	6.9	-1.0
Export crops	4.8	-9.1	-0.7	-14.3	16.7	-2.2	1.0	-1.0
Livestock and related products	11.2	7.9	8.5	9.2	10.6	7.4	8.7	9.0
Industrial growth	**16.6**	**-4.3**	**13.4**	**9.9**	**6.2**	**-1.3**	**16.5**	**4.8**
Mining and quarrying	0.0	-31.2	26.5	16.1	7.3	5.1	35.4	9.0
Manufacturing	11.2	2.1	10.5	11.1	9.5	9.3	12.3	10.0
Electricity	6.5	2.0	12.0	20.0	14.3	13.8	12.3	15.9
Water and waste management	0.0	3.0	5.9	0.0	0.0	0.0	8.0	0.0
Construction	32.9	-5.6	15.1	6.5	0.0	-17.7	19.9	-4.1
Services growth	**8.3**	**-5.5**	**11.9**	**10.8**	**11.9**	**16.5**	**11.0**	**13.1**
Maintenance and repair of motor vehicles	7.0	-2.2	33.3	14.3	6.7	6.7	46.7	9.1
Wholesale and retail trade	15.7	-3.3	11.7	6.9	16.7	19.4	10.6	14.6
Transport	12.5	-23.7	14.6	19.4	27.6	25.5	12.9	24.2
Hotels and restaurants	10.0	-40.6	20.4	80.8	190.0	93.5	4.1	114.3
Information and communication	9.2	29.3	19.0	16.4	7.1	32.8	20.8	18.8
Financial services	8.6	-2.6	18.0	12.1	11.3	6.6	13.8	9.9
Real estate activities	3.9	0.3	4.1	5.2	1.9	0.0	4.6	2.3
Taxes less subsidies on products	**15.1**	**-1.7**	**13.5**	**10.3**	**2.4**	**22.8**	**13.3**	**11.5**
Expenditure side								
Government	17.6	1.9	13.6	24.7	0.9	18.2	15.5	14.2
Households and NGOs	5.5	-5.0	8.8	-2.2	11.8	16.7	6.8	8.8
Gross capital formation	20.7	3.5	11.4	0.8	10.4	-31.3	19.1	-7.4
Exports of goods and services	19.9	-9.2	2.8	41.4	26.3	36.1	-5.8	34.1
Imports of goods and services	18.0	-3.4	3.6	5.3	27.2	10.8	-0.5	14.6

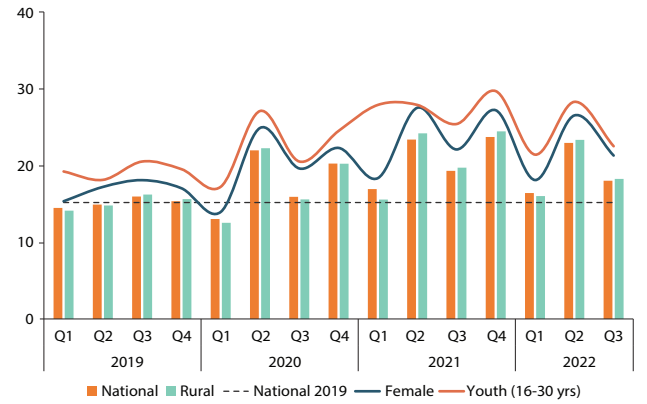
Source: WBG staff computation based on GDP National Accounts (Third Quarter 2022)

Labor market developments

The labor market improved significantly in 2022, but disparities exists among major indicators, especially for the youth and females (Figure 1.4). The unemployment rate remained at 18.1 percent in the third quarter of 2022, much higher than the 2019 level of 15.2 percent. It is significantly higher among females (21.4 percent) than males (15.4 percent). The youth unemployment rate, which was already higher before the COVID-19 pandemic, remined elevated at 22.6 percent. Youth unemployment appeared to be also higher among females. Meanwhile, labor force participation rates increased by about 2.3 percentage points. On the positive none, the employment rate increased year-on-year also by about 5 percentage points in the third quarter of 2022, nearly closer to the pre-pandemic levels. It remains to be seen whether this recovery can be sustained, considering the substantial volatility of employment over the past three years.[2]

[2] In response to the covid outbreak in 2020, the National Institute of Statistics of Rwanda (NISR) introduced phone surveys in mid-2020 that have been used through the current quarter (See for example NISR (2022), Labor Force Survey Tends August 2022, p. 1)

Figure 1.4: Unemployment rate, 2019 -22
(percent)



Source: Rwanda Labor Force Surveys, various issues

The recent improvement of the labor market was broad-based, with tourism linked sectors performing exceptionally well. Both urban and rural employment levels increased, along with male and female employment rates, over the third quarter. Similarly, unemployment rates fell across the board. By sector, the employment recovery was driven by agriculture and manufacturing growth on a quarterly basis and year-on-year (Table 1.2). In the first three quarters of 2022, about 58 percent of jobs were generated out of agriculture. Tourism linked services, such as food and accommodation, transport, arts, entertainment and recreation as well as for handicrafts and other souvenirs, generated more than 43 percent of non-agricultural jobs. Other jobs were in mining and quarrying (6.4 percent), manufacturing (16.9 percent), construction (9.9 percent) and education (9.0 percent). Job creation in education reflects the recruitments of teachers after the construction of more 22,000 classrooms in FY2021/22.

Table 1.2: Employment by selected sectors
(percent changes)

	2022 Q3 vs 2021 Q3
Employed population	16.7
Agriculture, forestry and fishing	19.1
Mining and quarrying	66.5
Manufacturing	35.5
Construction	7.8
Transportation and storage	35.6
Accommodation and food service activities	107.1
Education	15.2
Arts, entertainment and recreation	389.8

Source: Rwanda Labor Force Surveys, various issues.

External sector developments

Despite the recovery in tourism and strong re-exports, the current account deficit remained wide as surging commodity prices pushed imports to an all-time high. The substantial increase in global prices for oil and other commodities expanded import payments by 35.5 percent, year-on-year, in the first three quarters of 2022, with oil imports swelling by 65.9 percent. International visitors' arrivals to Rwanda continued to increase in 2022, rising to 650,879 persons in the first eight months of 2022, about 133 percent higher than in the same period in 2021. Tourism revenues reached US$289.1 million (equivalent to 3.0 percent of GDP). Although continuing to be the single-largest source of export revenues, this is still about 16 percent lower than the pre-pandemic record in the first three quarters of 2019. Driven by higher commodity prices and re-exports to the DRC as pandemic restrictions are lifted, goods export also increased. Reexports of gasoline, vehicles, food and other products, which account for about 45 percent of good exports, expanded by 47.0 percent in the first three quarters of 2022 following the reopening of borders with DRC and other neighboring countries as COVID mobility restrictions eased. Overall, total exports of goods and services increased by 47.2 percent, exceeding the total annual exports of 2021. Remittances remained resilient, increasing by 23.5 percent y-o-y to reach US$335.5 million in the three quarters of 2022. However, these developments were not sufficient to offset the impacts of the large commodity price shock, leading the current account deficit to remain wide at US$1.2 billion, equivalent to 11.1 percent of GDP in the first three quarters of 2022. By end of 2022, the deficit is estimated to have reached almost the same as in 2022.

Table 1.3: Balance of payments, 2019-2022
(Percent of GDP, unless otherwise indicated)

	2019	2020	2021	3Qs-2021	3Qs-2022
Current account balance	**-11.9**	**-12.1**	**-11.2**	**-11.6**	**-11.1**
Trade balance (goods and services)	***-14.3***	***-16.2***	***-16.1***	***-16.3***	***-16.9***
Exports	21.8	18.9	19.1	18.1	22.4
o/w gold	2.7	6.3	3.3	3.0	4.4
o/w coffee and tea	1.5	1.4	1.6	1.4	1.2
o/w tourism	4.4	1.2	1.4	1.2	3.0
o/w transport	2.1	1.1	1.3	1.3	1.5
Imports	36.1	35.1	35.2	34.4	39.3
o/w gold	2.3	6.2	3.3	3.1	4.5
o/w energy products	5.3	5.3	2.4	3.3	4.6
Primary income	***-3.2***	***-2.0***	***-2.0***	***-2.1***	***-2.2***
Secondary income	***5.6***	***6.1***	***6.8***	***6.8***	***8.0***
o/w external grants to government	2.8	3.0	3.5	3.5	4.6
o/w remittances inflows	2.4	2.7	3.4	3.3	3.5
Capital account balance	**2.5**	**3.1**	**3.4**	**3.3**	**3.0**
Financial account balance	**8.8**	**10.8**	**9.2**	**9.9**	**5.6**
Direct investment	2.4	1.3	1.8	1.9	2.4
Loans and other flows	6.5	9.4	7.4	8.0	3.2
o/w government borrowing	5.8	9.3	8.8	9.7	4.7
Net errors and omissions	**1.6**	**1.4**	**0.0**	**-0.7**	**-0.2**
Change in reserves (+: increases)	**1.1**	**3.2**	**1.4**	**0.9**	**-2.6**

Source: WBG staff computation based on GDP National Accounts (Third Quarter 2022)

Foreign direct investment and government borrowing financed partially the current account deficit, leading to a drawdown on foreign reserves. Foreign direct investment (FDI) inflows continued to recover, reflecting the improvement in economic activities. Despite this, the financial account balances narrowed in 2022. This was mainly noticeable through government borrowing, which were about 5 percent lower than a year ago, largely reflecting the base effect emanating from the Eurobond issuance and SDR allocation in 2021.[3] Therefore, the overall balance of payments turned negative, equaling 2.6 percent of GDP in the first three quarters of 2022, which was financed by drawing on foreign reserves.

Inflation, monetary and financial sector developments

Inflation reached historic highs in 2022, driven by rising food prices (Figure 1.6). Urban inflation, the headline measure, rose sharply from the recent trough of -0.9 percent, year-on-year, in September 2021 to reach a thirteen-year high of 21.7 percent, year-on-year, in November, before declining by 1 percentage points to 21.6 in December 2022.[4] This level of inflation was the highest in the EAC region, but comparable to some other SSA countries (Figure 1.7). Core inflation (computed excluding food and energy from the urban inflation) also increased from 0.0 percent (year-on-year) in June 2021 to 14.7 percent in November 2022. Both rural and nationwide inflation show similar trends, reaching 42.9 percent and 33.8 percent respectively in November 2022.

[3] In 2021, Rwanda issued its second Eurobond in August 2021 on US$620 million at a coupon rate of 5.5 percent. The financing raised was used to repay approximately 85 percent of the existing US$400 million Eurobond issued at a coupon rate of 6.25 percent and refinance an expensive RwandAir debt of about US$112 million. The resultant net inflows were equivalent to 2.5 percent of GDP and were recorded under portfolio investment. There was also a SDR allocation by International Monetary Fund (IMF) equivalent to 2.0 percent of GDP.

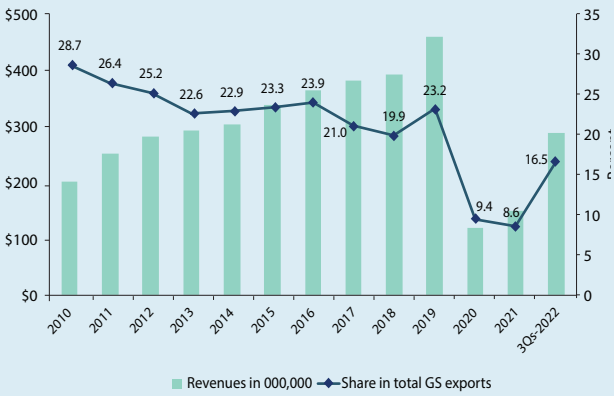
[4] Rwanda uses the urban inflation as the headline inflation, i.e. the main index for macro-economic policy.

Box 1.1: Rwanda's tourism sector

Tourism is a central sector in Rwanda's economy, and was the largest export until the onset of the global pandemic. Rwanda's tourism sector experienced strong growth in the 10 years before the pandemic. In 2009–2019, the number of foreign arrivals increased by 9.4 percent annually and reached 1.6 million, compared to about 663,000 in 2009. Between 2012 and 2019, Rwanda had been attracting more than a million tourists a year. Tourism earnings increased at 11 percent a year over 2009–2019, generating more than 20 percent of total export earnings from goods and services. In 2019, tourism exports reached US$458 million (equivalent to 4.4 percent of GDP). In 2022, the sector continued to recover, with tourism arrivals rising to 650,879 persons in the first eight months. Tourism accounted for more than 13.3 percent of total exports in the first three quarters of 2022, when tourism exports reached US$289 million (equivalent to 3.0 percent of GDP). Despite strong recovery in 2022, the performance has not yet recovered to pre-crisis levels: the value of exports in the first three quarters of the year is 82 percent of the same period of 2019 and tourist arrivals in this period are only 60 percent of what they were before the pandemic.

Tourism generates substantial economic activity in and spillovers to other sectors. For example, Rwanda's construction sector growth has benefited from the construction of hotels. The number of hotels and similar establishments increased by 82.8 percent between 2013 and 2019, reaching 722 (14,089 rooms) in 2019. Hotels and other types of accommodation also generate economic activity through backward and forward linkages to agriculture, fishing, and manufacturing. Tourist services and tourists themselves, through personal spending in and outside the tourist accommodation, increase the demand for transport, banking, insurance, telecommunications, medical, security and retail services, arts, entertainment and recreation as well as for handicrafts and other souvenirs. Tourism leads to the creation of businesses related to water, mountain and adventure sports and other recreation activities, as well as every facet of travel and transport.

Figure 1.5: Rwanda's tourism exports, 2010–2022



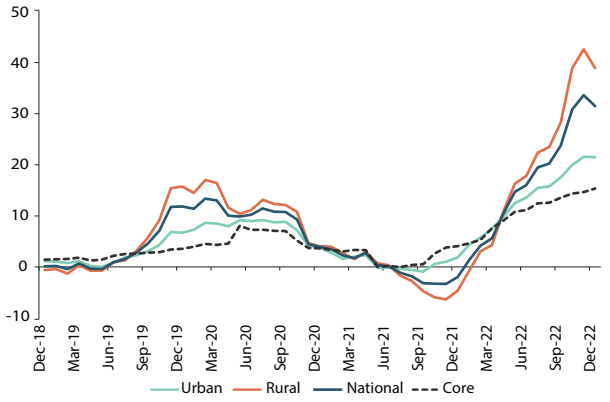
Source: World Bank staff calculation based on BNR Balance of payments.
Note: GS: Goods and services

Table 1.4: Accommodation for visitors in hotels and similar establishments

	2013	2014	2015	2016	2017	2018	2019
Number of establishments	395	412	444	454	502	706	722
Number of rooms	7,316	7,678	8,270	8,389	8,969	12,979	14,089
Number of bed-places	14,658	15,430	16,597	17,081	20,054	25,126	26,507

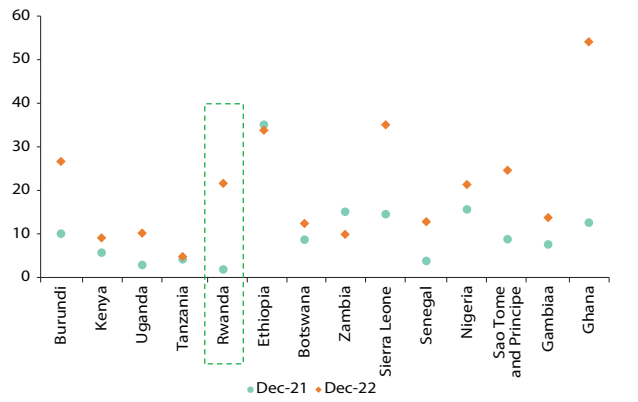
Source: UNWTO tourism statistics database

Figure 1.6: Inflation developments
(percent, y-o-y)



Source: WB staff calculation based on NISR data

Figure 1.7: Inflation across African countries
(percent, y-o-y)



Source: https://tradingeconomics.com/

Rising inflation appears to be driven by supply shocks. The war on Ukraine and unfavorable weather conditions have put upward pressures on food and fuel prices since early 2022. Food, comprising more than one-quarter of the urban CPI basket, recorded significant increases in prices, contributing about fifty percent to the increase in headline inflation since April 2022 (Figure 1.8). Inflation of food and non-alcoholic beverages rose to record-highs in October 2022: 39.7 percent y-o-y in urban areas and 64.8 percent y-o-y in rural areas. This reflects the poor food production during the two agricultural seasons, mainly due to global supply chain disruptions that reduced the availability of agriculture inputs, coupled with unfavorable weather conditions. Food crop production, representing 63.6 percent of the agriculture sector, declined by 2.3 percent in agricultural season A and B of 2022 from a growth of 8.3 percent in 2021. In volumes, the main drivers of this decline were maize (-5.0 percent), Irish potatoes (-3.2 percent), beans, (-8.0 percent) and vegetables (-4.2 percent), which account for about a third of the total food production. Some of these products, such as potatoes and beans, are also considered as vegetables according to the 2018 Classification of Individual Consumption according to Purpose (COICOP)[5].

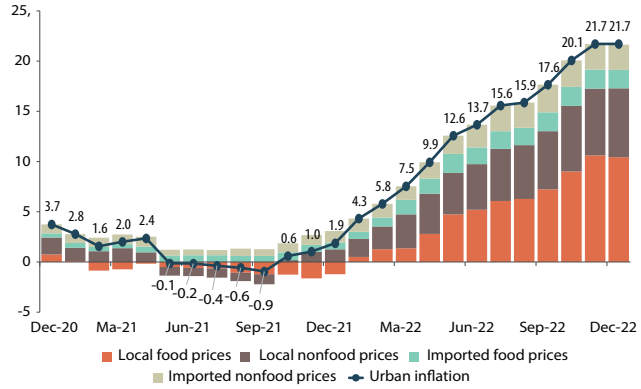
Energy and core (which excludes food and energy prices) inflation have also trended upwards, reflecting partial passthrough of higher international oil prices, Rwandan franc depreciation, and second-round effects of supply shocks. Higher gasoline and diesel prices (respectively 40.8 percent and 52.3 percent y-o-y in October 2022) pushed up transport prices (13.6 percent) which together contributed about 1.7 percentage points to the CPI inflation in October 2022. In urban areas, other products categories experiencing double-digit price increases at least for five consecutive months up to October 2022 include restaurants and hotels (17.5 percent on average), and furnishing, household equipment and routine household maintenance (15.6 percent on average). Reflecting rising input costs, the manufacturing producer price index rose by an average of 18.5 percent in the first nine months of 2022. The persistent high-double-digit food inflation could increase food insecurity.

The National Bank of Rwanda (NBR) tightened monetary policy in 2022 to limit inflation pressures. NBR's Monetary Policy Committee (MPC) raised the central bank rate (CBR) by 50 basis points in February 2022 to 5.0 percent, for the first increase in over 22 months, after inflation accelerated and returned into the middle of the target band of 5±3 percent. As inflation reached double digits in the second quarter of 2022, the MPC tightened monetary policy further, raising rates by 100 basis points to 6 percent

[5] Published by the United Nations Statistics Division, the Classification of Individual Consumption according to Purpose (COICOP) is the international reference classification of household expenditure. COICOP_2018.

Figure 1.8: Rising local food prices led to inflation pressures

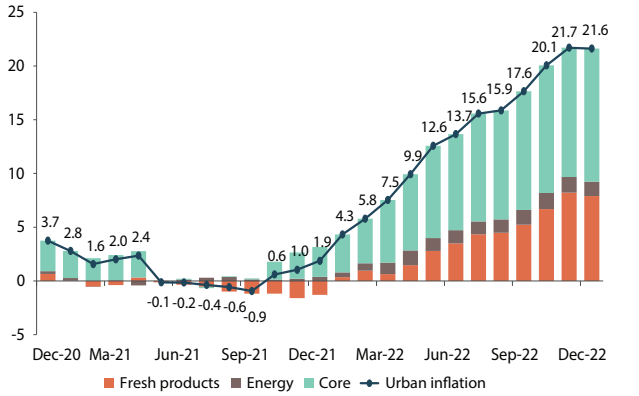
(percent change, y-o-y, and contribution to percent change)



Source: World Bank staff calculation based on NISR data

Figure 1.9: Contributors to inflation

(percent change, y-o-y, and contribution to percent change)



Source: World Bank staff calculation based on NISR data

on August 9, 2022. Nevertheless, inflation continued to surge and reached 20.1 percent in October 2022, pushing the MPC to raise again the CBR by 50 basis points to 6.5 percent in November 2020 (a level last seen in December 2016). The last two increases were taken mainly to limit the second-round effect from higher imported prices due to the global shocks. Changes in the policy rate have led to increases in short-term money market rates. For example, the interbank rate increased from 5.2 percent in Dec. 2021 to 7.1 percent in Dec. 2022. Additional, the NBR has resumed, in June 2022, its mop-up operations, which were lastly done before the COVID times and replaced by injection operations to provide enough liquidity to the economy during that time. The MPC has also decided to increase the reserve requirement ratio to the pre-COVID level of 5 percent effective January 1st, 2023. The ratio had been at 4 percent since April 2020 after a temporary decision to reduce it in the wake of the COVID-19 pandemic.

Rwanda's financial sector continues to be resilient. As of September 2022, the capital adequacy ratio stood at 22.3 percent compared to the minimum prudential requirement of 15 percent. This is mainly explained by capital injections, retained earnings, and the moderation of the growth of risk weighted assets due to increased investments in liquid assets. Banks' asset quality also improved as non-performing loans (NPLs) ratio dropped to 4.1 percent in September 2022 from 5.1 percent in September 2021. While the financial sector continues to hold adequate capital and liquidity buffers, there are downside risks associated with exposure to hard-hit sectors such as hotels, trade and real estate; loans still under moratorium that continue to hold up liquidity in the medium term; and the potential increase in non-performing loans as well as delayed realization of collateral held that could further reduce cash inflows and increase liquidity and credit risks.

Fiscal sector and debt sustainability

The government has begun its consolidation efforts. The deficit stood at 6.3 percent of GDP, marking a three-year declining trend since the deficit peaked at 7.9 percent of GDP in FY2019/2020. The reduction in the fiscal deficit was driven by reduction of capital expenditure. Capital expenditure was lower by 0.6 percent of GDP, while current expenses were consistent with the recent trends. Overall, total government spending amounted to 32.2 percent in FY20/21, which is 0.4 percentage points lower than in the previous fiscal year. Total revenue increased to 25.9 percent of GDP in FY21/22 from 25.1 percent in FY20/21, owing to higher grants (1.4 percent of GDP), largely offset by lower non-tax revenue (0.4 percent of GDP). Higher grants reflect earlier-than-anticipated disbursements from the UK under the Migration and Economic Development Partnership (MEDP). Tax policy changes and administrative

Table 1.5: Rwanda's public finance, FY2017/18-FY2021/22
(percent of GDP)

	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22
Revenue	**22.7**	**23.7**	**23.4**	**25.1**	**25.9**
Taxes	**15.0**	**15.8**	**15.7**	**15.8**	**15.7**
Taxes on income, profits, & capital gains	6.0	6.8	6.8	6.8	7.1
Taxes on goods & services	7.8	7.8	7.6	7.6	7.3
Taxes on international trade & transactions	1.2	1.3	1.2	1.2	1.1
Other taxes	0.0	0.0	0.0	0.2	0.1
Other revenues	***3.2***	***3.3***	***3.0***	***3.8***	***3.4***
Grants	***4.5***	***4.5***	***4.7***	***5.5***	***6.9***
Expenditure	**27.0**	**29.6**	**31.3**	**32.6**	**32.2**
Expenses	**17.9**	**19.1**	**20.3**	**20.4**	**20.6**
Compensation of employees	3.1	2.8	2.8	2.9	2.7
Use of goods and services	5.5	5.5	6.1	6.1	5.7
Interest	1.1	1.2	1.5	1.8	1.8
Domestic	0.5	0.5	0.6	0.7	0.6
Foreign	0.6	0.6	0.8	1.1	1.3
Subsidies	1.2	2.0	2.7	2.5	3.2
Grants	5.2	5.4	5.3	5.3	5.5
Social benefits	0.3	0.3	0.3	0.4	0.5
Other expense	1.3	2.0	1.5	1.3	1.2
Net Investment in nonfinancial assets	***9.1***	***10.5***	***11.0***	***12.2***	***11.6***
Foreign financed	4.8	5.1	5.8	6.7	4.9
Domestically financed	4.3	5.4	5.2	5.5	6.7
Net lending borrowing					
Including grants	-4.3	-5.9	-7.9	-7.5	-6.3
Excluding grants	-8.8	-10.5	-12.6	-13.0	-13.2
Primary balance	-3.2	-4.8	-6.4	-5.8	-4.5
Net financing	**4.3**	**5.9**	**7.9**	**7.5**	**6.3**
Domestic	-0.1	0.8	-2.3	1.1	-1.0
Foreign	4.4	5.1	10.2	6.4	7.3

Source: WBG staff computation based on GDP National Accounts (Third Quarter 2022)

measures maintained tax revenues roughly in relation to GDP. There were, however, some revenue losses due to reduced fuel levies and other subsidies. Therefore, the fiscal deficit narrowed to 6.3 percent in FY21/22 from 7.5 percent of GDP in FY20/21. The primary deficit also declined to 4.5 percent of GDP in FY21/22 from 5.8 percent of GDP in FY20/21.

Despite steadily rising since 2013, Rwanda's debt remains sustainable. From 20.9 percent in 2012, the public debt has reached 73.3 percent in 2021. Preliminary estimates indicate that total public and publicly guaranteed has declined to 71.3 percent in 2022, of which external public sector is estimated at 53.0 percent of GDP. More than 75 percent of Rwanda's public debt is owned to multilateral creditors, such as the World Bank and African Development Bank, on concessional terms. Bondholders and other commercial loans represent 11.5 percent of the total public debt. This structure helps Rwanda's public debt to remain sustainable. Indeed, the November 2022 Debt Sustainability Analysis (DSA) conducted jointly by the World Bank and the International Monetary Fund assessed the risk of debt distress as moderate in the context of the highly uncertain and difficult external environment. The DSA also indicate that the primary fiscal deficit continues to be the key driver of public debt accumulation, which warrants a credible fiscal consolidation.

1.3. Rwanda's economic outlook and risks

Despite the continued recovery in tourism, the war on Ukraine and weakening external demand are expected to reduce real GDP growth to 6.2 percent in 2023. Growth is projected to recover to 7.5 percent in 2024–25, supported by growth-enhancing public investment made possible by fiscal consolidation, improvements in the efficiency of spending and reforms to boost revenues from income and value added taxes over the next year. Downside risks to this outlook are significant, including a prolongation of the war on Ukraine, lower availability of concessional resources, lower external demand, and the potential for severe climate and weather-related shocks.

Rwanda's economic growth is expected to moderate in 2023 before regaining momentum in the following years. Like all developing counties, Rwanda will continue to face headwinds from the war on Ukraine, weakening external demand, and high commodity prices in 2023. Economic activity is expected to regain momentum in 2024, if the situation normalizes, driven by the pickup in construction of the new airport and the subsequent boost to the services sector in line with global growth outlook and the expected decline in domestic inflation. With fiscal consolidation measures implemented, private consumption and investment are expected to be the main growth drivers in the medium term. Real GDP growth is projected at about 6.2 percent in 2023 and 7.5 percent on average in 2024–2025. The REU20 projections of 2023 are lower are than in the REU-19 because the 2022 growth rate was higher than previously expected. Inflation is projected to converge back to the NBR's tolerance band (2–8 percent) in 2023, provided monetary policy is further tightened to fend off second-round effects.

A continued recovery in tourism activities in 2023, which is expected to boost several services and private consumption, supports the near-term outlook. Tourism is expected to benefit from several events (meetings, conference, and sports) expected

to take place in Rwanda. At this time, there are already 30 events scheduled for 2023, including the 73rd Fédération Internationale de Football Association (FIFA) congress, Airports Council International (ACI) meeting, the Tour du Rwanda (an international cycling tour); the 2023 Basketball Africa League (BAL) season, the gorilla naming ceremony (Kwita Izina), etc.[6]

The weakening global demand is expected to weaken Rwanda's net exports. Despite intense tourism activities and downward revisions of international oil prices, the trade deficit is projected to remain large, reflecting lower export prices for tin, metal, and tea prices. Therefore, the current account deficit is projected to remain in double digit in 2023.

Fiscal consolidation and spending efficiencies, introduced in FY2022/23, should preserve space for growth-enhancing investment and measures to mitigate the impact of the pandemic and spillovers from the war on Ukraine. The government is expected to tighten its fiscal stance with the FY2022/23 budget to stabilize debt levels while safeguarding fiscal space for development spending in line with the NST-1 objectives. Phasing out COVID-related spending and SDR-earmarked spending, which amounts to 2.3 and 1.3 percent of GDP, respectively, will support fiscal consolidation. However, there will be additional spending aimed at mitigating the impact of the pandemic and spillovers from the war on Ukraine. They include, in particular, increased grants to local governments to support an increase in teacher salaries and expenses in the school feeding program (1 percent of GDP), increases in fertilizer subsidies (0.3 percent of GDP) and subsidies to private transport operators (0.3 percent of GDP), and the expansion of social protection programs (e.g., home-based early childhood development, public works, skills development, and asset transfer). On the revenue side, the implementation of the Medium-Term Revenue Strategy through tax policy reforms (personal/corporate income tax and value-added taxes) is expected to raise revenue to 15.9 percent of GDP in FY2023/24 from 15.7 percent of GDP in FY2021/22.

Debt levels are expected to decline in 2023 before rising in 2024–26. Debt sustainability is subject to risks in the availability of concessional financing, further U.S. monetary policy tightening and U.S. dollar appreciation, and terms-of-trade shocks. Implementation of the ambitious fiscal consolidation strategy, increase of buffers to deal with climate risks, and further strengthening of debt management capacity to mitigate heightened uncertainty and risks surrounding the current environment remain critical in achieving the debt anchor and reducing debt-related risks.

Risks to the outlook are tilted to the downside

The main risk originates from the war on Ukraine, which continues to increase the fragility of the global economy. While Rwanda has limited direct trade and financial links with Russia and Ukraine, a further weakening in global demand would affect the country. A prolonged war on Ukraine would increase pressures on energy, fertilizer, and food

[6] Rwanda Convention Bureau, 2023 Events Calendar, https://rcb.rw/-2023-Events-111-.html, accessed January 10, 2023.

prices, thus endangering food security, weaken external tourism demand, and perhaps lead to supply chain disruptions. Lower availability of concessional resources and lower external demand fueled by monetary tightening in advanced economies pose further downside risks.

Rwanda continues to be among the most vulnerable countries to weather and climate shocks, which are a key risk to the continuation of economic recovery. The increasing frequency of weather and climate shocks (e.g., drought and floods) could lower agricultural output and thereby impact many farms and households in Rwanda. Decreased production could also lead to higher food prices to the detriment of poor households.

PART TWO

SOCIAL AND ECONOMIC IMPACT OF HIGH INFLATION IN RWANDA

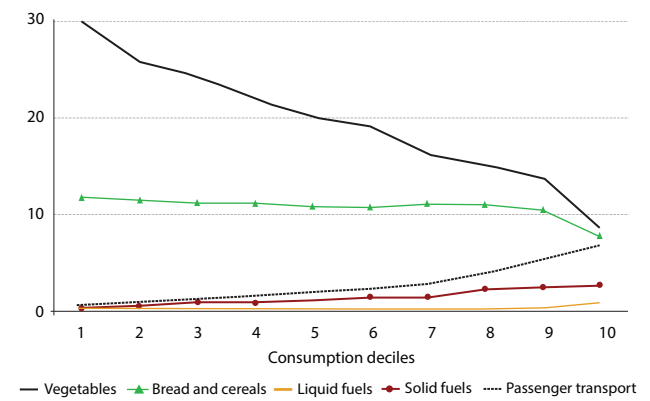
Social and economic impact of high inflation in Rwanda

Rising food prices have affected lower income households in particular, who devote a larger share of their expenditures to food and appear to face higher rates of food price increases, compared to higher-income households. Thus, the recent food price increases pose an important threat to food security and human capital of the poor. The government adopted a number of measures to mitigate the impact of inflation during 2022, including an increase in fuel subsidies, increased spending on social protection programs, and increased subsidies for fertilizers and seeds.

Further measures to protect the poor and most vulnerable over the short term could include reinforcing social protection policies that were introduced in response to the COVID-19 pandemic, particularly increasing the coverage of the Nutrition Sensitive Direct Support and Public Works programs, as well as securing financing for the emergency cash transfers; providing emergency support to agricultural production; scaling up and improving targeting of school feeding; and strengthening policies to address food insecurity and prevent child stunting, particularly expanding the role of early childhood development centers.

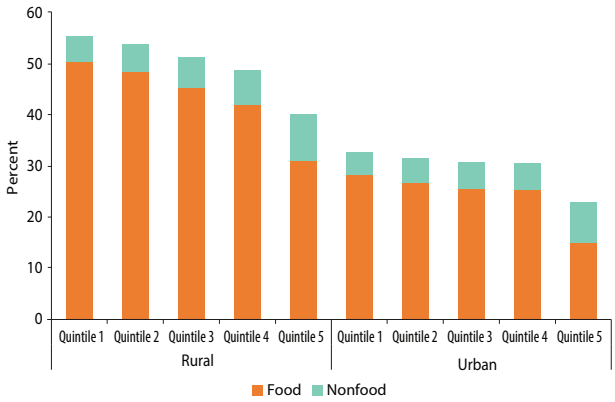
High food prices are likely to increase inequality and poverty in Rwanda. While food consumption accounts for a significant share of the budget for most households in a low income economy like Rwanda, the consumption share of food products is much larger for the poorest (Figure 2.1). Food consumption in Rwanda accounts for 27.4 percent of the consumer basket for urban households, 48 percent for rural households and 39.0 percent nation-wide. As a result, estimates indicate that inflation has been highly regressive, the average consumption price for rural and poorest households increasing the most (Figure 2.2). High inflation is also likely to accentuate geographical inequality, as the poorest districts seem to be the most affected. Poor people are getting hit harder by food prices probably because of their lower capacity compared to richer districts to cope with weather shocks and increased fertilizers price (Figure 2.3). Estimates show that, 11 districts with a poverty rate that is higher than the national poverty rate of 8.2 percent, out of a total of 19 districts surveyed, experienced higher rates of food inflation compared to the national average.

Figure 2.1: Consumption shares of food products
(percentage)



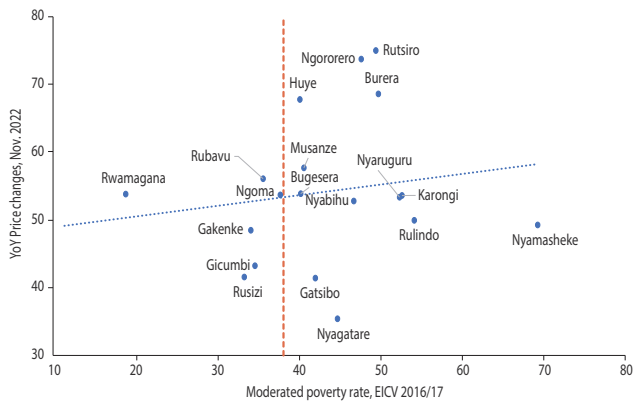
Source: WBG staff estimates based on NISR's EICV 5

Figure 2.2: Estimated inflation rates by quintiles of household consumption in Rwanda
(November 2022, yoy changes)



Source: WBG estimates based of NISR and consumption spending shares across quintiles of food and nonfood products

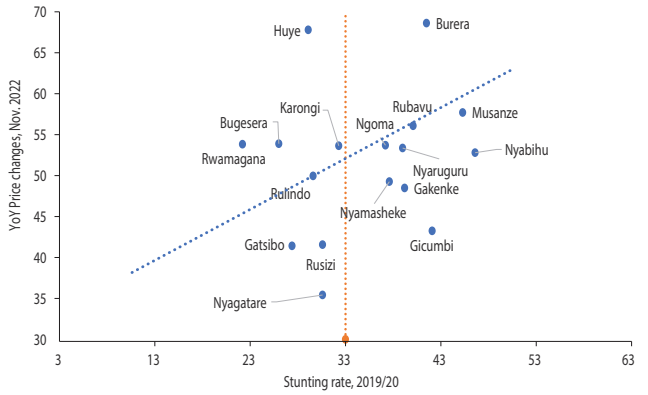
Figure 2.3: Districts with higher poverty incidence faced higher food price inflation



Source: WBG staff estimates based on NISR's EICV 5 and Rwanda Rural Markets Prices.
Note: Rural markets prices are corrected in 19 districts from 125 markets (between 2 and 10 markets per district). Prices of 18 products were used to compute inflation

High inflation and high exposure to food price spikes pose risks to food security and human capital. High and increasing food prices can generate an immediate threat to the security of a household's food supply, thereby undermining population health and impairing child nutrition, particularly among the poor (Channing, *et al*., 2016; Headey and Ruel, 2022; Ibikunle, *et al*., 2022, Vellakkal, *et al*., 2015). Using data from the rural markets prices, it is found that districts with highest prevalence of stunting are also the one with highest food price increase (Figure 2.4).[7] Therefore, if not addressed properly, high food prices could undermine the hard-fought gains in recent years that saw a reduction in stunting from 38 percent in 2014/15 to 33 in 2019/20.

Figure 2.4: Districts with higher stunting rates faced higher food price inflation



Source: WBG staff based on NISR DHS2019/20 and Rwanda rural markets prices.
Note: Rural markets prices are corrected in 19 districts from 125 markets (between 2 and 10 markets per district). Prices of 18 products were used to compute inflation

Government's reponses[8]

Rwanda quickly adopted a series of responses to contain the negative effect of rising energy and food prices while continuing to support recovery from the pandemic. To mitigate the impact of rising commodity prices, the authorities used fuel, fertilizer, and public transport subsidies and social protection interventions. This happened while the government continued to deal with the COVID-19 pandemic.

- **Fuel subsidies.** The pass-through of international fuel prices to domestic prices was moderated through temporary reductions in the fuel levy between May 2021 and August 2022. These subsidies are estimated at 0.2 and 0.3 percent of GDP in FY21/22 and FY22/23, respectively.
- **Social protection programs.** Established in early 2000s, Rwanda's social protection programs include Vision 2020 Umurenge Program (including cash transfers, public works, and economic empowerment), Girinka ("one cow per poor family"), and Ubudehe (community projects). The government temporarily increased spending on social program activities by 0.4 percent of GDP, especially the expansion of social protection programs (e.g., home-based early childhood development, public works, skills development, and asset transfer).
- **Subsidies for agricultural inputs.** Orders for agricultural inputs, including fertilizers and quality seeds, are placed in the Smart Nkunganire System––a technology-based agricultural input subsidy system––and matched by private sector traders. The government provides subsidies if international prices are too high so that orders are cleared. International prices almost doubled from a year before and the subsidies were set to absorb about 60 percent of this increase. The FY22/23 budget envisages 0.9 percent of GDP for this scheme.
- **Public transport subsidies.** Public transport fares are adjusted considering private operators' profits and the affordability to end-users. At the onset of COVID-19, public transport subsidies were introduced to offset the losses from reductions in passenger capacity to allow social distancing. Fares also benefitted from reductions in excise taxes. The FY22/23 budget maintains the level of the subsidies amounting to 0.3 percent of GDP.
- **Education measures to improve the coverage and quality of education and to ease the cost of living for teachers.** In August 2022, the government took a decision to increase the salaries of all primary school teachers by 88 percent and that of secondary school teachers (A0 &A1) by 40 percent

[7] Rural markets prices are available at https://datanalytics.worldbank.org/connect/#/apps/756/access

[8] This section was drawn from the MINECOFIN presentation to the heads of development agencies based in Kigali on December2022.

to address a longstanding issue of low teacher pay given the cost of living. There were also increases in subsidies for school feeding, and the contribution of the government now amounts to 40 percent of the school feeding budget of every student. This policy added 1.0 percent of GDP to spending in FY22/23.

Implications for future policy options[9]

The previous sections have analyzed the impact of high inflation on recent economic developments; and the government's response to the crisis. This section provides tentative policy recommendations for fiscal, social protection, and sectoral policies. These policies are placed within the framework of: (a) short term measures for protecting the poor and vulnerable; and (b) long term reforms to strengthen policies and institutions, and investments to build resilience.

Short term measures to protect the poor and most vulnerable

The main goal is to strengthen social protection programs and to support agriculture production.

▷ ***Social protection measures***

The government may consider reinforcing social protection measures introduced in the framework of responding to COVID-19 that have been maintained to mitigate the impact of inflation on the poor. Some of the measures introduced in response to COVID that have been maintained by the government include expanding the eligibility criteria for some SP components, such as the Nutrition Sensitive Direct Support, increasing the transfer amount for NSDS and expanding Public Works. Although these measures could contribute to addressing the inflation crisis, they are not enough, particularly due to coverage and consistency issues. Given the severity of the crisis, further expansion of coverage would be required if sufficient impact is to be achieved. Aspects that could be improved include:

- Increasing the number of districts covered, as NSDS is only being implemented in 20 districts out of 30.
- Increasing the number of sectors covered, as ePWs is being implemented in around 300 sectors out of 416.
- Securing financing for the emergency Cash Transfer introduced during COVID-19 (while the program is now considered part and parcel of the VUP—according to the latest program document recently approved by the cabinet—the financing for it is not yet assured).

▷ ***Emergency support to agriculture production***

The Government may consider instituting emergency support for agriculture production, as food inflation in Rwanda has been heavily supply side driven with production declining in the face of bad weather conditions and limited access to fertilizers. The intervention could aim to intensify low-cost climate smart agriculture solutions for localized smallholder farmers to improve household nutrition, especially where stunting is high.

▷ ***Scale up and improved targeting of school feeding***

The Government may consider scaling up and improving targeting of school feeding program to address food insecurity and the potential negative impact on stunting and student learning outcomes. As underlined above, the government has recently increased subsidies for school feeding of every student. To improve the efficiency of public spending, the government should consider targeting school feeding support to the poorest schools/sectors, and simultaneously put in place measures to monitor and ensure children aren't denied attendance for lack of parental contribution for school feeding.

[9] Some of the recommendations were drawn from the presentation of the group of development partners Economists to the heads of development agencies based in Kigali on December 2022. The recommendations related to social protection are based on both the 16th edition of the REU (on the impact of the COVID-19 on Human capital in Rwanda) and the Public Expenditure Review recently completed by the World Bank in collaboration with the government.

▷ ***Strengthen existing policy to address food security and prevent child stunting***

Early childhood development (ECD) centers should expand to consider the nutritional status of under five children.

Medium to long term measures to strengthen policies, institutions, and investments to build resilience

▷ ***Adaptive social protection system***

Key priorities for social protection programs include:

- Continue to invest in improving the design of social safety nets and social insurance to make them more adaptive. Countries that enter a crisis with good social protection programs and systems are better prepared to mount a quick and effective response to the crisis. For instance, Abay *et al* (2020) find that, in Ethiopia, recipients of the Productive Safety Net Program (PSNP) were protected from virtually all the increase in food insecurity due to COVID-19 [10]. Moreover, being prepared ex ante reduces the cost of emergency response. Finally, it would be important for Rwanda to set up an emergency fund so that it has the fiscal resources to respond when a crisis hits.
- Ensure that social safety nets are easily scalable. As illustrated by the food crisis, the largest shocks affecting rural and poorest households (notwithstanding the pandemic) are climate related. Understanding the nature, frequency and geographical location of floods, droughts, and other climate events can help the government build scalable safety nets. The objectives of scalable safety nets are to (i) be prepared before occurrence of the shock; (ii) respond immediately, so that detrimental effects are minimized; and (iii) scale-up social safety net payments to households affected by the shock, on a temporary basis. In addition to the social registry, which contains information to enable quick response to shocks, the government will also need to choose the right financing mechanism to support the scaling up

[10] PSNP households were also less likely to reduce expenditures on health and education compared to non-PSNP households.

▷ ***Maintain fiscal space to act during the crisis***

Rwanda should maintain the focus on achieving fiscal consolidation over the medium-term. The country should aim at achieving fiscal consolidation to create fiscal space needed for greater response capacity from the government to mitigate future global chocks and as well as climate change related shocks. The key reform priority should be on prudent design of the public investment program, in terms of both total size and optimal sector allocation of projects, while improving control of expenditures to increase efficiency. Improving public investment management is key to improve the use of limited public resources.

Strengthening revenue mobilization reforms is critical for fiscal sustainability. The focus should be on mobilizing revenue that minimizes the effects on the poor such as health/sin and carbon taxes, and on making personal and corporate income taxes more progressive. The government should continue with the development of the medium-term revenue strategy (including a VAT gap analysis), and an assessment of tax expenditures.

PART THREE

MAKING THE MOST OF NATURE-BASED TOURISM IN RWANDA

3.1. Context, benefits and challenges of nature-based tourism

Nature-based tourism (NBT), or tourism to experience natural resources in a wild or undeveloped form, has grown rapidly in Rwanda. It is a source of foreign exchange earnings and part of the tourism sector. NBT tourism contributes directly and indirectly to job creation, many of which are quality jobs: the accommodations and food sector has a larger share of formal jobs and of women workers than in the rest of the economy. Gorilla trekking has been a significant source of foreign earnings from NBT in Rwanda. Diversification of Rwanda's NBT offering, as part of a broader diversification of the tourism offering in Rwanda, is necessary given the barriers to expanding the yield from gorilla trekking. In addition to contributing to growth, this would help protect biodiversity and could advance Rwanda's efforts to adapt to climate change. NBT, however, is subject to significant risks, including the impact of external factors such as global pandemics, as seen during the COVID-19 pandemic, and climate change. Other threats include environmental and land degradation, for example the clearance of natural vegetation and deterioration of the forests surrounding PAs, impacting bird and wildlife populations, and the survival needs of poor communities. To mitigate these risks and ensure continued growth of NBT, concerted efforts are needed to manage Rwanda's biodiversity and restore its degraded landscapes that underpin Rwanda's NBT, diversify the offer, ensure NBT benefits local communities including through changes to the Tourism Revenue Sharing Program, and mobilization of financing.

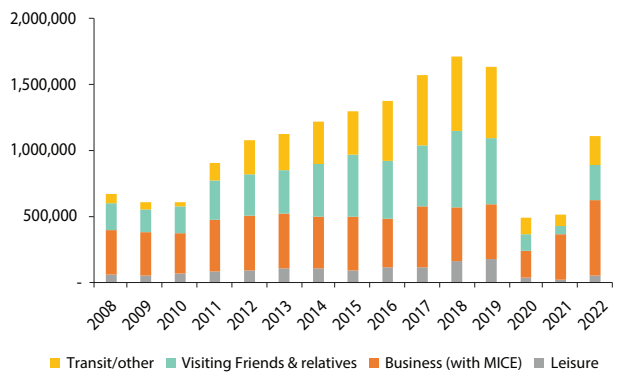
Context of nature-based tourism

Rwanda possesses important natural assets that support NBT. NBT is defined as "forms of tourism that use natural resources in a wild or undeveloped form. NBT is travel for the purpose of enjoying undeveloped natural areas or wildlife." (Leung, *et al*., 2018) Rwanda's key nature-based assets for NBT include excellent tourism destinations such as the Volcanoes National Park (VNP): home to the mountain gorilla and part of the UNESCO Volcans Biosphere Reserve), other National Parks including Akagera and Nyungwe, forests reserves, charismatic wildlife including the 'Big Five', and sites of scenic and scientific importance. Together these offer tourists the opportunity to visit diverse landscapes that provide habitats for diverse species, including 709 bird species.[11]

Nature-based tourism has grown rapidly and generates substantial foreign exchange earnings Available statistics from RDB (see Figure 3.1) indicate the number of visitors to Rwanda's three national parks (VNP, Akagera National Park (ANP), and Nyungwe National Park (NNP)) rose from 43,083 in 2008 to 107,976 in 2022. Over the same period the revenues of these national parks increased from approximately US$8.20 million to US$27.3 million. In terms of types of activities, game watching and safari tours in ANP is the dominant activity. In 2019 these accounted for 46 percent of all the nature-based activities undertaken in these three national parks. This is followed by gorilla trekking and visits to the golden monkey in VNP, which comprised 16 percent and 8 percent respectively of all nature-based activities by the national parks' visitors. Of these activities, in 2019 gorilla tourism generated US$107.3 million, or about 21.5 percent of total tourism revenues (with the majority going to accommodation, food and beverage and transportation).[12] The gorilla permits

Figure 3.1: Snapshot on NBT in Rwanda

a. International visitation to Rwanda (2008-2022)



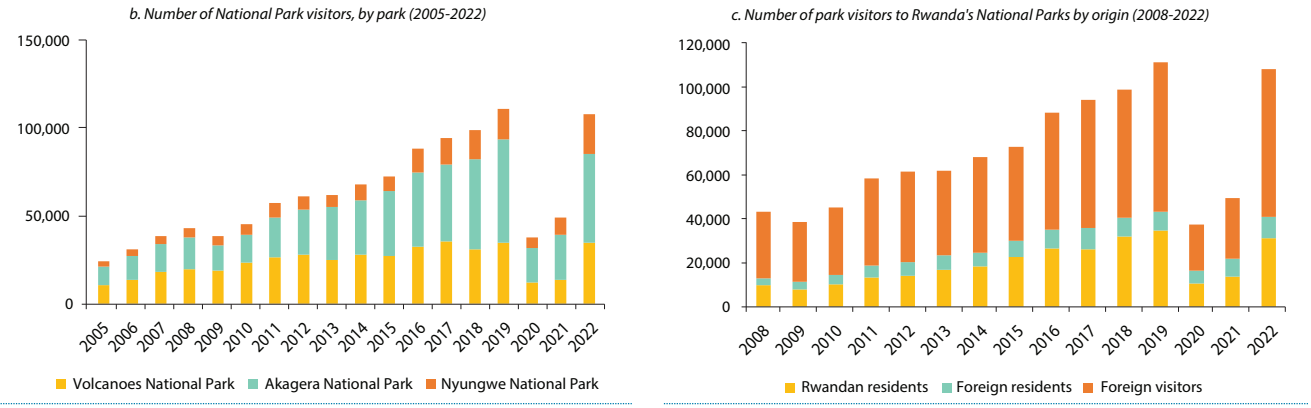
Source: WBG staff using data from RDB and NISR (2021b)

[11] The species include antelope, zebra, buffalo, giraffe, hippopotami, leopard, golden monkeys, chimpanzees, golden cat and lions.

[12] This translates to an average daily spending of US$1,375 with the average length of the stay of 4.8 nights (RDB, 2020b).

Figure 3.1: Snapshot on NBT in Rwanda *(cont.)*

(International visitors by tourism category and tourism in Volcanos National Park, Akagera National Park, and Nyungwe National Park)



Source: WBG staff using data from RDB and NISR (2021b)

alone accounted for about 22 percent of the gorilla tourism revenue (US$24 million) in 2019, and nearly 86 percent of total tourism permit income from PAs in the country.

Despite important progress in recent years, Rwandan's NBT still has margin for improvement. In terms of current levels hotel occupancies, data obtained from experts[13] revealed that that the occupancy levels were consistently highest in Bisate Lodge, while the number of bed nights sold are highest in Ruzizi Lodge (approximately double the number of bed nights available in Bisate Lodge). In Akagera National Park, while the occupancy levels are lower, the actual numbers of beds sold are higher than for Bisate Lodge. Information from African Parks reveals that the level of domestic visitation, combined with people staying, has pointed to the need for improved visitor management strategies (e.g., seasonal pricing, zoning, diversification of routes spatially, etc.) which could be used to spread both demand and avoid crowding.

In 2017, RDB implemented a new high-end tourism strategy that doubled the permit cost to US$1,500, with the potential of generating more than US$52 million from permits alone. RDB also increased the revenue-sharing rate with communities from five percent to 10 percent (RDB, 2017). The increase in permit cost was made rapidly, and consultation and coordination with the international or domestic tourism sector was limited. The change in permit cost coincided with a jump in both the number and proportion of available gorilla permits sold in Uganda in 2018, which rose by 23 percent (14,305 additional permits sold, from 2017 to 2018), and this was sustained into 2019 prior to the COVID-19 pandemic.[14] Available data indicates a drop in numbers and percentage of gorilla permits sold after the price increase in 2017 (see Table 3.1). Anecdotal evidence suggests that tourists have been shifting their gorilla viewing plans to Uganda and reducing their overall length of stay in Rwanda.

Table 3.1: Percentage of gorilla trekking permits sold

(2010-2020)

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Permits available	23,360	23,360	23,424	29,200	29,200	29,200	29,280	29,200	35,040	35,040	35,136
Percentage sold	81	92	98	65	69	66	76	78	43	50	19

Source: RDB

[13] Data were obtained regarding Bisate Lodge (Wilderness, Volcanoes NP); Kwitonda Lodge and Kitaza House (Singita, Volcanoes NP) and from Ruzisi and Karenge (African Parks, Akagera NP).

[14] Ministry of Tourism, Wildlife and Antiquities, Uganda - https://www.tourism.go.ug/statistics

Continuing to expand the yield from gorilla trekking will be challenging. Using mechanisms to enhance gorilla tourism yield, such as increasing the size or number of gorilla trekking parties, is limited both by the number of habituated gorilla groups and the number of visitors that can practically be accommodated during a visit (due to the habitat and viewing options in parts of the park). To remain competitive, it would be challenging to further increase the price of the gorilla permits in Rwanda, without similar coordinated increases in Uganda and the Democratic Republic of the Congo (DRC).

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Benefits of nature-based tourism

The overall tourism sector has been a major source of quality jobs in the formal sector in Rwanda, although its potential to reduce poverty could be further improved. The latest WTTC data ("total contributions of travel and tourism to employment") suggest that tourism employment fell from 385 thousand in 2019 to 262 thousand in 2020, and recovered to 302 thousand in 2021, still below its pre-pandemic level (Annex Figure 1, left panel). Based on annual Labor Force Survey (LFS) data, total employment in the tourism sector fell from about 10.4 percent of employment in 2019 to 8.2 percent in 2021.[15] More than 24 percent of jobs in accommodations and food services are formal, compared to 13.5 percent for national average. The accommodation and food sectors are also more likely to employ women compared to the rest of the economy. However, tourism jobs have been mainly urban (74 percent for transport and 60 percent for accommodation). Most tourism jobs are created in Kigali and districts with relatively lower unemployment and lower poverty compared to national average (see Annex Note 1).

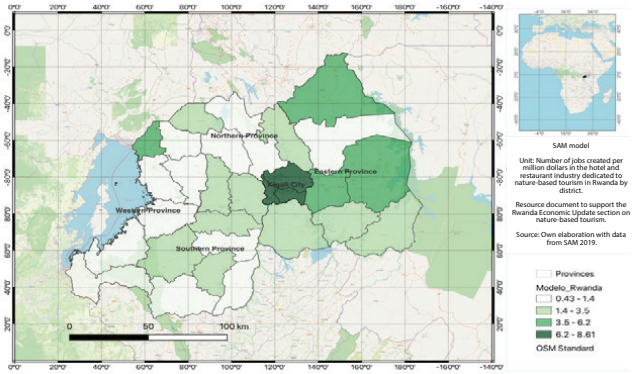
NBT and conservation activities in national parks contribute to the livelihoods of people living around the park. In VNP these activities contribute in different ways to the livelihoods of approximately 70 percent of people around the park (Benitez *et al*., 2021). The jobs range from park staff, porters, hotels, artisans, food merchants, landlords, shops, and bars. Many of these jobs engage local community members in formal sectors, for example the Porters Cooperative operating in Kinigi (VNP) is composed of former poachers (Benitez *et al*., 2021). In ANP, 50 percent of the park revenue in 2019 (US$1.25 million) paid salaries to 273 staff. 90 percent of the people employed in the park are Rwandan (Africa Geographic, 2022). To improve tourism's economic benefit and its pro-poor potential, and considering the geographic location of NBT, a strategy should be formulated to increase job opportunities via NBT in poorer areas. That requires thinking about districts and provinces that have deep pockets of unemployment and how their jobless workers can gain the skills and subsequently the access to tourism related job opportunities, ensuring that they are both sufficiently mobile and qualified.

Tourism has a high job multiplier effect in Rwanda's economy. This is because tourism has multiple direct and indirect connections to employment-generating activities in other economic sectors (e.g., agriculture, hospitality, transportation, etc.). A preliminary World Bank analysis of this multiplier effect indicates that for every US$1 million (about Rwf1,050 million) that NBT

[15] Employment in transport and storage and accommodation and food service activities, which together account for about 78 percent of proxy tourism employment in 2021, has been more or less stable in recent years.

activities inject into the economy, an additional 1,328 new jobs are directly and indirectly created.[16] These are spread across the transport, accommodation, and hospitality sectors and generated across the country, with the multipliers being found mostly in Kigali, followed by the eastern part of the country, and less prominently the western part (Figure 3.2).[17]

Figure 3.2: Job multiplier effect on activities closely related to tourism

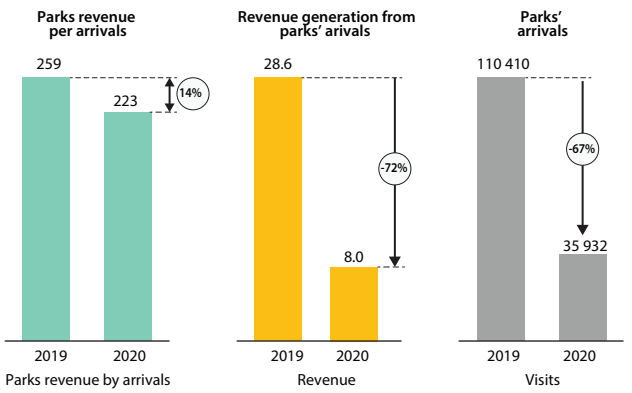


Source: McLiberty 2022, with data from the 2018 SAM of Rwanda and the Labor Force Survey 2018

Challenges to nature-based tourism in Rwanda

NBT, like the overall tourism sector, is highly vulnerable to concerns over external factors such as pandemics, as shown during the COVID-19 pandemic. The number of visitors to the National Parks fell by two-thirds in 2020, to visitor levels last seen in the early part of this millennium (Figure 3.3).

Figure 3.3: The impact of the COVID-19 pandemic extended into nature-based tourism
(Revenue in US$ million)



Source: IFC and RDB, 2021

According to the Director of the Rwanda Chamber of Tourism (RCT), the tourism sector lost US$38.2 million (Rwf 34.9 billion) in March 2020 (Byishimo 2020). The impact was felt throughout the sector, with tour operators losing US$22.5 million, hospitality industry US$14.8 million, conference and events US$1.1 million, and travel agencies US$0.16 million.

Reduced revenue from NBT due to COVID-19 severely impaired livelihoods. The majority of hospitality workers were laid off, including 90 percent of tour operator staff, 99 percent of travel agency staff, and 67 percent of professional conference organizers (PSF Chamber of Tourism 2020). A survey conducted by Rwanda Chamber Tourism of the Private Sector Federation showed that by the end of March 2020 more than 3,800 workers had lost their jobs in Rwanda's tourism industry, which directly and indirectly affected more than 10,000 Rwandans and their dependents (PSF Chamber of Tourism 2020 as cited in –Benitez *et al.*, 2021). The reduced revenue also caused the near complete collapse of the revenue sharing model used in Rwanda through which local communities benefit from the proceeds generated by the national parks.[18] This revenue reduction had debilitating impacts on the livelihoods of people living adjacent to conservation areas and people employed in the sector and conservation activities, and on enterprises within the NBT value chain. Byishimo (2020) indicates that support is required to rescue private enterprises in the tourism sector that are struggling with debt mounting to US$96 million as a result of the COVID-19 pandemic.

Government of Rwanda was proactive in responding to the crisis caused by the pandemic. GoR implemented stringent prevention measures and was identified as one of the top tourist destinations to receive the "global safety and hygiene" stamp by the World Trade and Tourism Council (WTTC). The government also made available about 50 percent of the Rwf100 billion in the Economic

[16] It is estimated that more than 70 percent of tourism visits in Rwanda is NBT.

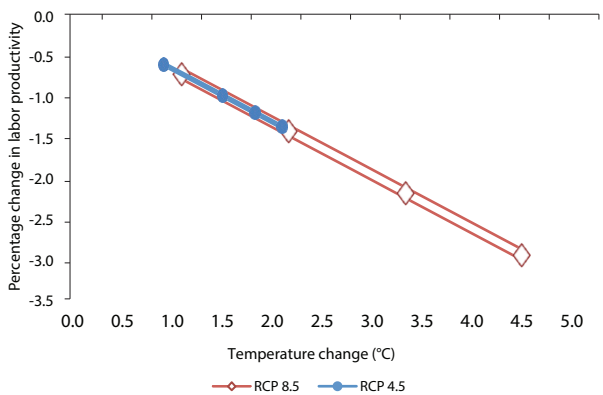
[17] The spatial analysis was based on information provided by the SAM and the 2018 Rwanda Labor Force Survey that classifies the workforce in the 21 industries of the International Standard Classification (ISIC).

[18] The tourism revenue sharing scheme constitutes the main source of income for communities around the parks, who were getting approximately US$54.7 (RwF50,000/month) per household (RDB 2020).

Recovery Fund (ERF) to the tourism and hospitality sector. By December 2020, approximately Rwf42 billion had been disbursed under the ERF hotel refinancing window (RDB, 2021c). The Government also collaborated with the private sector to promote domestic tourism, as a partial substitute to foreigners unable or unwilling to travel to Rwanda.

Climate change poses a severe threat to NBT. The ND-GAIN Index ranks Rwanda as 124 out of 182 countries with respect to the country's vulnerability to climate change and other global challenges as well as their readiness to improve resilience.[19] Climate change is expected to cause severe flood damage to physical capital, reduce labor productivity, and impact tourism demand (World Bank, 2022a). A large number of studies have shown relationships between temperature and tourism, including in the selection of the tourist destination. The World Bank estimates that an increase of 2°C between 2040 and 2059 could lead to a reduction in international tourism demand of approximately 20 percent (Figure 3.4). The impact on Rwanda is likely to be greater, as available estimate does not account for the changes in gorilla habitat and distribution that could occur with increases in temperature. It also does not account for the impact of degraded lands on flooding and encroachment of less degraded areas such as PAs.

Figure 3.4: Tourism demand shock from temperature[20]



Source: World Bank (2022a), based on Industrial Economics (2022)

Challenges affecting the conservation of flora and fauna also threaten the success of NBT both directly and indirectly. The clearance of the natural vegetation, which covered half of the country 50 years ago, to approximately 30.4 percent of forests today (of which only 18.1 percent are natural mountain forests) has led to plummeting bird populations outside reserves and ten bird species extinctions. To mitigate this, the network of PAs needs to be strengthened and creation of natural reserves should complement existing PAs. This would foster the development of bird-related tourism, especially if accompanied with a multilevel collaboration of stakeholders at national and regional level, in which the public plays a strong role in the long-term conservation of birds (Rurangwa and Whittaker, 2020).

Landscape degradation indirectly impacts the sustainability of Rwanda's NBT, because of the impact it has on the poor and vulnerable communities. The reduction in natural vegetation contributes to increased runoff and river flows, impacting water yield, and increasing landslides and soil erosion, and decreasing infiltration and groundwater recharge. The economic impact of the loss of just topsoil is estimated to be between US$34/ton and US$57/ton.[21] The loss of topsoil thus contributes to a societal loss of between US$476 and US$798 million per year.[22] The deterioration in the environment impacts the land-based subsistence livelihoods of communities around national parks. Communities who live adjacent to PAs often rely on these regions for forest products, firewood, thatching, and grazing, and they may have customary rights related to the natural resources. Research in Rwanda indicates that the underlying causes for threats to PAs such as poaching and other illegal activities, especially in VNP, are associated with poverty, lack of awareness, and culture and commercial purposes (Uwayo *et al*., 2020).

[19] https://gain.nd.edu/our-work/country-index/

[20] World Bank (2022a) op cit.

[21] Using market values as a proxy for its productive capability.

[22] NISR (2019a) as cited in Benitez *et al*. (2021). op cit

A key factor influencing the success of NBT is ensuring that local communities share in the benefits. A way of reducing the cost of conservation is to reduce threats to conservation, thereby lowering management costs. Research, around VNP, found that direct tourism benefits have more potential to influence change in forest-dependent behavior when the benefits help lift food security constraints. Furthermore, the potential to reduce forest dependence is possible if both direct and indirect tourism benefits help address health, education, and food security risks of poor households in proximity to the parks (Munanura, *et al*., 2020). It also is possible to reduce local communities' reliance on forests through the use of incentives and the promotion of energy-efficient stoves (Benitez *et al*., 2021). The incentives could support soil-conscious conservation agriculture, through a payment schemes that reward households and communities involved in preserving ecosystem services (often referred to as payments for ecosystem services (PES)), and promotion of alternative income generating activities (for example, from sustainable forest sector activities). Measures to reduce land degradation would benefit from improved forest land tenure and agglomeration of forested resources. These changes will pave the way for the involvement of private sector entities, create jobs, and help establish a sustainable and productive forest sector, helping diversify income sources in rural areas.

The Government of Rwanda launched the Tourism Revenue Sharing Program (TRSP) in 2005 to effectively engage the communities living around the PAs in conservation. Over the past 15 years, GoR has distributed more than US$5 million through the TRSP. RDB distributes 10 percent of the total gross tourism revenue collected each year between four National Park regions (Table 3.2). The ratios do not reflect the revenue earned by each park, although VNP (with its high-value mountain gorilla experiences) is the highest revenue earner (Conservation Capital and ALU, 2021).

Target areas for the TRS funds are the 'Zone of Influence' of each park. These are defined as the area within which community members have an impact on the NP or are impacted by the NP and sectors touching the park boundaries. The TRSP also prioritizes poorer and disadvantaged groups within the target areas, and communities that have the most impact on the NP (i.e., are more likely to conduct illegal activity) or on whom a park has the most (negative) impact. Through the Zone of Influence, the TRSP covers 14 Districts and 51 Sectors around the four NPs, with a total population of 1.4 million. Between 2005 and 2019, three districts benefited the most from the allocation of revenue from the TRS: Kayonza (ANP), Musanze (VNP) and Nyabihu (VNP) received almost 50 percent of total TRS allocated funding from 2005-2019.

In addition to the 10 percent provided to communities through the TRSP, five percent of tourism revenue goes into a Special Guarantee Fund (SGF) for mitigation of human-wildlife conflict (HWC). Initially, the SGF was created to deal with other issues such as road accident compensation; the incorporation of funding to support HWC started in 2012. The Government of Rwanda took this initiative

Table 3.2: National Park allocation and value of Tourism Revenue Share (TRS) revenue share

National Park	Policy percent TRS revenue allocation	Actual historic percent of TRS revenue allocation (2005-2019)	Actual value of project investments (2005-2019)
Volcanoes National Park (VNP)	35	41	Rwf2.4 billion
Akagera NP (ANP)	25	28	Rwf1.6 billion
Nyungwe NP (NNP	25	26	Rwf1.5 billion
Gishwati-Mukura NP	15	5	Rwf0.3 billion

Source: National Park allocation and value of TRS revenue share

in response to wildlife impact on crops and killing of wildlife in retaliation for predation on livestock. Between 2012-2020, the SGF compensated 10,000 farmers, with a rising number of cases due to increasing awareness. Between 2017-2020, SGF compensated on average 3,500 farmers per annum. VNP has the highest level of compensation requests of all NPs, mainly from buffalo and gorilla, and while Akagera is fenced, communities are still impacted by HWC.[23]

Consultations with stakeholders in 2021 indicated that a there was overall satisfaction with the TSRP (80 percent were satisfied), and more than half of all beneficiary respondents indicated that it had improved their overall quality of life (52 percent). However, the TRSP has room for improving its reach to all population groups, specifically, community based organization (CBO) members and other vulnerable groups, such as impoverished, women, disabled, youth who do not benefit as much as CBO members and were less satisfied with the impact of the TRSP. The review of TRSP identified options for strengthening the program via the revenue sharing policies, revenue allocation, project preparation and selection, implementation process and monitoring and evaluation (Conservation Capital and ALU, 2021).

[23] GoR [Government of Rwanda], 2012, 2017; Fitzgerald, 2020) cited in ALU and Conservation Capital 2021; GoR (2012) 'LAW N° 52/2011 OF 14/12/2011 - The Special Guarantee Fund for Accidents and Damages Caused by Automobiles (SGF)', pp. 35–40. Fitzgerald, K. (2020) Interview with the Special Guarantee Fund Coordinator.

3.2. Financing needs and options in parks and protected areas

As discussed in the prior section, Rwanda's tourism depends significantly on natural systems, and for NBT to flourish, biodiversity and its natural habitats must be protected and managed sustainably. While tourism sector is the largest, global, market-based contributor to financing PA systems that serve as an anchor for biodiversity conservation and economic development, as highlighted during the COVID-19 period, countries need to diversify sources of investments in the natural assets found in the parks and PAs beyond revenues from NBT. There is an increased awareness and urgency to create new NBT partnerships and investment opportunities to help countries unlock smart investment and grow NBT sustainably. In addition, there is greater interest from public and private sectors (including capital markets participants) to channel traditional loans, grants, and innovative financing for parks and PAs so that it can conserve the natural assets which NBT is reliant upon. Scaling up of government investments, grants, and new financing instruments can diversify Rwanda's revenue stream to support conservation of its parks and PAs. This can be especially important to minimize disruptions from future economic shocks.

Despite its importance of financing for parks and PAs, data on investment needs for and values from NBT is not systematically captured in Rwanda or at a regional or global scale. In absence of established literature on NBT values and investment needs, the estimation of financing for managing the natural assets that underpin NBT is based on assessments of biodiversity-related cost estimates and financing data. For this purpose, Rwanda's revised National Biodiversity Strategy and Action Plan (NBSAP II), Biodiversity Finance Initiative (BIOFIN), and its National Strategy for Transformation (NST) are considered. They enable a rough estimation of the magnitude of investments needed to secure the natural assets which are the basis for NBT growth in the country. This provides insights relevant to financing needs and opportunities in the sector and a proxy lower-bound for investing in NBT.

The Rwanda Biodiversity Financial Needs Assessment, the financing costs for implementing the NBSAP II are estimated at US$97.5-107.7 million over 2019-2029/30 (Masiga and Uwababyeyi, 2018). BIOFIN identified the finance needs for implementing the NBSAP II over two timelines (Table 3.3)[24]:

1. **2018/19 to 2023/24** for the First National Strategy for Transformation (NST1), the aggregate finance needs were estimated at between Rwf37.5 and 41.01 billion (equivalent to US$44.3 and 48.4 million)
2. **2018/19 to 2029/30** for the Sustainable Development Goal (SDG) planning period, the aggregate finance needs were estimated at Rwf82.6 to 91.2 billion (equivalent to US$97.5 and 107.7 million)

Goal 4, as noted in Table 3.3, has the highest finance needs in the range of Rwf12.0 to 12.8 billion (equivalent to US$14.2 to 15.1 million) and 26.9 to 28.7 billion (equivalent to US$31.8 to 33.9 million), for the NST1 and the SDG timeline, followed in descending order by Goals 3, 5, 2 and 1, respectively. The BIOFIN estimates are a subset of the overall investment need of approximately US$3.91 billion for the NST1 period (2017-2024) for the implementation of the agriculture, environment, and natural resource pillars in the NST1 which are key for a sustainable, resilient, and inclusive NBT sector (Benitez, *et al*. (2021). Over the 2017-2018 to 2020-2021 NST1 implementation period these pillars received US$737 million in total, with a decrease for both the agriculture and environment pillars between 2019-2020 and 2020-2021 periods.

Just as with hard infrastructure (e.g., roads, bridges), natural assets require capital investments and operational expenses to maintain their performance. To finance this cost, a mix of policy, debt and non-debt instruments can help Rwanda secure additional funds to protect and grow its natural assets. This diversified financing can help manage the assets that unpin NBT as well as and improve the quality of Rwanda's NBT offering. This includes its natural assets (wildlife, PAs, natural parks and forest reserves), physical assets (infrastructure that supports the NBT such as accommodations, transportation network, energy, etc.), and human assets.

Table 3.3: Summary of estimated financial needs for NBSAP II

Goals		Total (2018/19 - 2029/30) million RWF	Average (2018/19 - 2029/30) million RWF	NST1 total (2018/19 - 2023/24) million RWF
1. Mainstream biodiversity conservation in the decision making process across all government, private and civil society's development programmes	High	10,270	856	4,824
	Low	9,116	760	4,283
2. Reduce multiple anthropogenic pressures on biodiversity and promote sustainable use of all renewable resources	High	14,208	1,184	6,471
	Low	13,068	1,089	5,963
3. Improve the status of national biodiversity by expanding and safeguarding priority protected ecosystems and maintaining biological communities in equilibrium state	High	19,069	1,589	8,562
	Low	17,638	1,470	7,926
4. Ensure NBSAP implementation through biodiversty knowledge management, participatory planning and capacity building	High	28,651	2,388	12,791
	Low	26,933	2,244	12,013
5. Enhance NBSAP implementation through biodiversit knowledge management, participatory planning and capacity building	High	18,978	1,582	8,357
	Low	15,889	1,324	7,282
Total	**High**	**91,175**	**7,598**	**41,004**

Source: Masiga and Uwababyeyi (2018)

[24] Masiga, M. and Uwababyeyi, J. (2018) op. cit. Average exchange rate US$1 = Rwf847.1 (BNR 2018, Oct.).

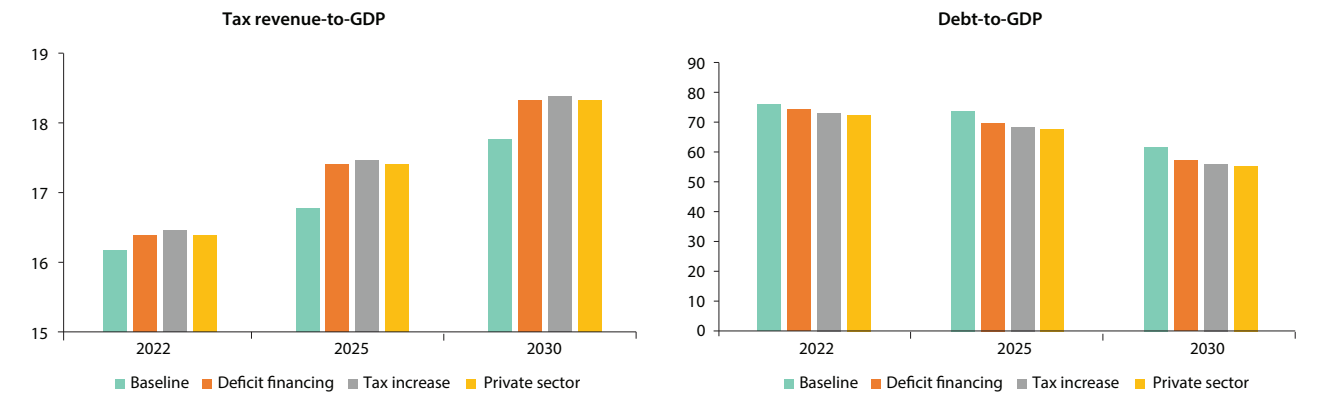
The mix of policy, debt, and non-debt instruments are needed to mobilize additional public investments and incentivize private sector participation. Rwanda's Green Fund (FONERWA), Ireme Investment Facility[25], could secure funds for nature-positive action, and test new instruments, including performance-based instruments and capital markets products tailored to domestic and foreign markets. Attracting private sector finance into biodiversity conservation and NBT will require the right regulatory environment and appropriate incentives and market structures. Government budgets, grants, and revenues generated from operations are also important sources of financing for natural assets. In addition, governments in the region and beyond are exploring different financial instruments to support government budgets. This can include collaborative management partnerships (CMPs)[26], carbon credits, PES, and various fixed income instruments (including use-of-proceeds bonds and structured bonds).

Investments in these natural assets provide biodiversity and ecosystem services benefits and support livelihoods. For example, Nyungwe National Park feeds two of the world's largest rivers, the Congo and the Nile, providing a significant portion of the Rwanda's freshwater. In addition, increasing investment in natural capital supports nature-based tourism, which can improve fiscal sustainability and growth, regardless of the source of financing. Nevertheless, relying in part on private sector finance for nature-based tourism, for example through a public-private partnership, can generate a greater increase in GDP than relying solely on public resources.

Targeted investment to secure Rwanda's natural capital and expand its NBT sector offerings would yield positive outcomes on fiscal sustainability and growth, regardless of financing options (Figure 3.5). For example, the CGE results show that if the entire amount of the increase in nature based-tourism infrastructure investment were financed by borrowing, public debt would decrease in 2025 from 74 percent of GDP in the baseline to 70 percent, and in 2030 from 62 percent in the baseline to 58 percent (Figure 3.5).[27]

Increasing the role of private sector in financing tourism-based infrastructure would be highly beneficial for Rwanda. Increased private sector financing of infrastructure investment could make a significant contribution to growth and welfare. If the government plan for NBT infrastructure were

Figure 3.5: Closing conservation and nature tourism infrastructure investment gap- Impact on revenue and debt



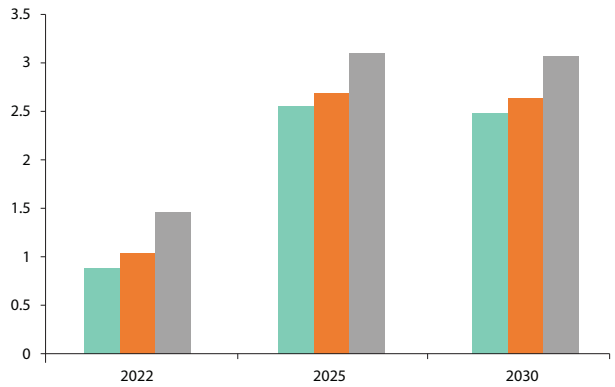
[25] Ireme Invest is a new green investment facility that will increase the private sector's contribution to Rwanda's response to climate change. Launched in November 2022, its initial capitalization is more than US$ 100 million.

[26] As in the example of Rwanda's co-management agreement with African Parks for Nyungwe National and Akagera National Park.

[27] This is outcome is different from the assessment of the NDC financing where deficit financing would lead to an unsustainable fiscal situation (See World Bank, 2022). The difference of outcome is due to the fact that nature based-tourism financing is less important (1.2 percent of GDP versus 11 percent for NDC). Furthermore, and most importantly, investments in nature-based tourism target specifically natural capital with high return in terms of tourism receipts that lead to increased productivity, foreign exchange, and tax revenue.

to be supported through a PPP (25 percent public resources and 75 percent by the private sector), then GDP would be 3 percent higher than baseline in 2030. This is a bigger gain than in any public financing option either by borrowing or by taxes. This result indicates that the reduction of domestic savings related to additional debt and repatriation of profit of public-private partnership (PPP) are offset by a relatively high productivity generated by PPPs. However, the distributional impact would also be similar to that of public financing options, favorable to urban areas and the richest (Figure 3.6).

Figure 3.6: Closing conservation and nature tourism infrastructure gap- Impact on GDP
(GDP (% change relative to baseline))



Source: WBG staff estimates

Internationally the best practice for mobilizing financing for NBT and engaging the private sector is through attracting capital investment and crowding in partners to support service provision in PAs, and providing planning and licensing permission for like-minded sustainability-focused commercial operations adjacent to them.[28] Options can include CMPs (as with African Parks in ANP and NNP, and Wilderness in Gishwati-Mukura National Park), capital tourism investment (i.e. accommodation [as already demonstrated with international portfolio companies such as Wilderness, Mantis, and Singita], in airstrips, visitor centers, etc.), the contracted operation and management of existing tourism facilities, and selling licenses to operate tours or guided services.

As part of its strategic long term debt sustainability and financing strategy, the GoR can potentially explore opportunities to develop performance-based, sustainability-linked financing instruments, along with tapping into non-debt solutions tied to structured bonds, the carbon markets, and private sector led equity investments. These include various kinds of output-based bonds, for example based on conservation of wildlife or forests, or green investments; funds to support biodiversity and climate change adaptation, and results-based payments, for example from reduced emissions through avoided deforestation and forest degradation (Box 3.1). As part of the United Nations Framework Convention on Climate Change (UNFCCC) and Convention on Biological Diversity (CBD) Conference of the Parties' (COP) in 2022, additional frameworks and financing mechanisms are being considered (including by a multi-agency working group in Rwanda) to explore potential policy, debt, and non-debt instruments that could mobilize funding for strategic investments, including in the NBT sector.

Box 3.1: Example of Collaborative Management Partnership

In 2010, the RDB partnered with African Parks (AP) to transform Akagera from a depleted and undervalued resource into a top wildlife destination in Africa. In 2019. ANP had an operational budget of US$3.25 million, generated revenues of US$2.6 million from tourism and other related initiatives, contributed US$119,029 to local communities as part of the Revenue Sharing Scheme and provided community benefits totaling US$728,435 through opportunities to invest in fisheries, forestry, and other wildlife economy related activities.

[28] World Bank Group (2016). An introduction to tourism concessions: 14 Characteristics of successful programs (2016); Convention on Biological Diversity (2017). Guidelines for tourism partnerships and concessions for protected areas ; United Nations Development Program (2014). Tourism concessions in protected natural areas: Guidelines for managers; World Bank (2021). Collaborative management partnership toolkit.

3.3. Policy framework and recommendations

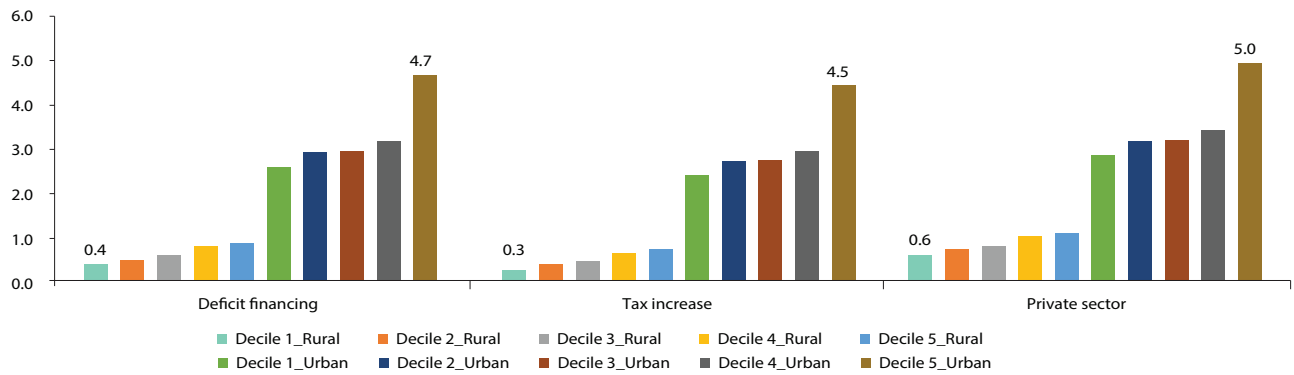
Delivering on RDB's vision for tourism will benefit from focused interventions on a few key areas related to NBT. These include protecting the natural assets that underpin NBT, augmenting the benefits communities derive from NBT and incentives for managing important natural resources, diversifying the NBT offer as part of Rwanda's efforts to diversify its tourism sector, strengthening data on NBT, and mobilizing private financing.

The vision of the Rwanda Tourism Policy (2009) and the post COVID tourism recovery plan includes establishing Rwanda as a leading wildlife and ecotourism destination. Complementing the vision and in response to the impact of the COVID pandemic on the tourism sector in Rwanda, the RDB (with support from IFC) prepared a recovery plan for Rwandan tourism. The plan proposes to: (i) manage and enhance tourism demand, (ii) diversify tourism assets and experiences and (iii) strengthen enabling capability and tourism management. The aim is to increase arrivals and length of stay by increasing choices of destination and attractions, support a more sustainable, inclusive, resilient, and competitive tourism industry and create an environment in which tourism can thrive and drive long-term growth. The strategy notes the that the core market is the high-end overseas leisure segment and there is limited opportunity for increasing gorilla trekking permits, which lead to short leisure trips to Rwanda coupled with longer stays in neighboring countries (e.g. Uganda, Kenya). Drawing on experiences from other countries, there, however, is the opportunity to bolster this strategy to ensure that benefits of tourism activities have a broader reach and create jobs in rural areas while protecting Rwanda's biodiversity and natural resources and bolstering resilience to climate change.

To meet the levels of ambitions for NBT and ensuring the resilience of NBT in the medium-term, measures to develop a network of well managed PAs and managing the land around PAs is imperative. The PA network should be oriented towards attracting international tourists to maximize foreign exchange earnings. This will entail ensuring the expansion of the PA network is orientated towards attracting foreign exchange revenue, professional, and, where, appropriate allows sustainable forest sector activities to act as a buffer zone to the PA network and to assist with creating biodiversity corridors. Such an approach would also benefit communities around the PAs and general ecosystem service delivery and biodiversity conservation in addition to climate change resilience. Strategic planning to generate more benefits from NBT should include geospatial data and analyses and ecological and social studies to support development of a viable and sustainable PA network.

Figure 3.7: Distribution impact of investments on conservation and nature-based tourism

Welfare impact of investments in nature based tourism, by Decile of households



Source: WBG staff estimates

Collaborative management partnerships (CMPs) could be used by the PA network to fast-track investment and revenue generation from tourism. CMP would help, among other issues, to improve PA operational and management efficiency, the review and adjustment of the entry fees, the application of concession fees and licenses for traversing rights (see Box 3.1). Rwanda already has experience collaborating with partners to mobilize resources to enhance its natural assets (including through CMPs). Also, concerted effort to operationalize the recently passed Law No. 001/2023 of 13/01/2023 Governing National Parks and Nature Reserves would be a move in the right direction.

Investments in integrated landscape restoration and land use planning that recognizes the feedback effects between land use and ecosystem services will need to be increased. This will require a multisectoral policy that supports the management of the natural capital both in- and outside PAs in a pro-active manner by considering the value of the ecosystem services it provides (Benitez *et al*., 2021). The multisector approach could develop and strengthen the use of PES, develop strategic institutional and investment frameworks to adequately respond to key challenges such as land degradation, climate change (drought), extreme events (flooding and landslides), PA management, and forest management in accordance with the Green Growth and Climate Resilient Strategy (GGCRS).

Rwanda has made important progress in ensuring that local communities and enterprises reap some benefits from NBT, but improvements should be considered (Conservation Capital and ALU, 2021). Further roll-out and expansion of revenue-sharing schemes to communities and local landowners for co-management and maintenance of parks would help ensure that maximum benefits flow to local communities (World Bank, 2022). In addition, a life cycle approach should be used for all public investments, for example to ensure that any school buildings constructed are then staffed and equipped for use. TRSP money should not be used to substitute for public obligations and should be geared to respond to the needs of the directly affected by the establishment of national parks and PAs, and communities impacted by human-wildlife conflict, with provisions for them to manage the funds and resources they are allocated (see Annex Note 2 on Recommendations for Improvement of the TRSP).

Box 3.2: Case study examples of local benefits from NBT

Bisate Lodge is privately owned by a company called Imizi Ecotourism Ltd. Imizi is co-owned by Wilderness Holdings (WH) (90 percent) and Thousand Hills Africa (10 percent), a local Rwandan inbound tour operator and ground handler. Wilderness operates, manages, and markets the lodge. The uninhabited agricultural land (42 hectares) on which the lodge is built is now privately owned, having been purchased from around 103 community members, who formed a cooperative called Tuzamurane through which to engage the private sector both for the purposes of land sale (also overseen by district and national authorities) and future engagement such as employment and procurement.

The benefits to the community include payments to community members for land acquisition (a total of US$675,534 over FY2016-18), purchases of local materials and services during building of the lodge (US$25,000), the hiring of casual labor (approximately US$3,000 for the six months that the lodge was operational in 2017), and payments for nursery and reforestation project labor costs (US$10,221). Approximately 200 local people were temporarily employed in road and lodge construction, and 24 community members have been trained as staff and are permanently employed. The salary cost to company amounts to approximately US$21,185 per month for local Rwandan staff.

Source: Snyman and Spenceley (2019)

Government should also promote additional ways for tourism revenue or tourism opportunities to benefit local communities. Examples of ongoing initiatives that achieve this include the Porters Cooperative operating in Kinigi (VNP) which is composed of former poachers. Other examples include the approach used by Bisate Lodge (see Box 3.2). Promotion of agroforestry could also support farmer resilience on small plots through more diversified incomes, while helping prevent land degradation, among other benefits (Benitez *et al*, 2021).

Other options to improve the share of tourism benefits accrued by local people living adjacent to the parks in Rwanda include:

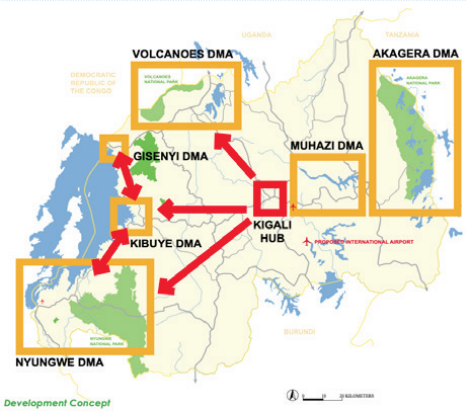
- *Private sector interventions:* Compared to other destinations, there appears to be relatively fertile ground for engaging with the private sector on actions that provide net benefits to the poor. Many hoteliers or lodge owners are already implementing initiatives in this direction. Some of the initiatives are philanthropic 'add-ons' to core business, rather than an attempt to restructure core functions of staffing and procurement. Several studies have found that a number of hotel managers and tour operators took guests to visit schools, orphanages and community groups. 30 to 40 percent of these guests leave donations that range from US$10 to US$300, and sometimes include long-term sponsorship of specific children or classes (Ashley, 2007). Other studies have found that the average amount for cash donations was US$61 per tourist, and the average total value for cash and in-kind donations was US$118 per tourist (Grosspietsch, 2007). On average domestic tourists spent US$19.37 per trip on donations to the community, and international tourists spent US$32.14.
- *Joint venture arrangements:* Such an arrangement, where the community owns the land, and ideally the lodge, is the single most powerful way to substantially increase financial flows to the poor. For example, the Sabyinyo Lodge can generate roughly three times as much community benefit per bed-night as other forms of accommodation. This is not without its challenges, which have been extensively described in existing studies (World Bank Group and World Wildlife Fund. 2014).
- *Employment of local staff:* This is one of the largest flows of income to poor people around Rwanda's Parks, but it is also the flow per bed-night that shows highest variability among enterprises. Improving opportunities for local people, and people from poor backgrounds, to gain employment in tourism would quickly increase incomes of the poor. Improving vocational hospitality training in Rwanda is a priority.
- *Business linkages with local entrepreneurs and performers:* The smaller luxury and budget ventures cannot hope to match the larger ventures or partnerships for local revenue flow. Hotels, however, can multiply their own local economic impact by developing enterprise linkages. Helping local farmers to gain market access could greatly boost incentives for conservation around the Rwanda's Parks, while having minimal impact on other farmers because the hotel vegetable market accounts for less than 1 percent of the overall market trade. Some of the challenges with implementing this approach are related to consistent quality of the supply and effectively connecting producers and buyers.

Equally important to GoR's efforts to protect natural capital will be putting in place a combination of policy reforms to reduce negative impacts of other sectors' economic activities on biodiversity. This would include for example removing explicit and implicit subsidies in agricultural, inland fisheries, mining, and other sectors that result in land degradation and loss of ecosystem services. In addition, policy measures that create an enabling environment and reduce the risks facing public and private investors can also promote nature-positive investments. Involving the private sector can improve the effectiveness of public goods. For example, the private sector currently has little role in strengthening

watershed and catchments protection. The potential for requiring PES (for services such as reduced soil erosion, lowering of flood risks, etc.) by local industrial users of watersheds, or programs that involve them in the rehabilitation of natural water ecosystems, should be evaluated (World Bank 2022a).

The current Destination Management Areas (DMAs), as defined and demarcated by RDB, will play a significant role in the future of NBT development and how it is diversified in Rwanda (Figure 3.8). Based on Rwanda's Vision 2050, new tourism segments will shape the future of the tourism industry, mainly sport, medical, education, water-based, urban, and adventure tourism. The potential for diversifying NBT tourism in Rwanda will depend on how the destinations continue to evolve. Learning from Botswana, Kenya, Mozambique and South Africa, value chain analyses should be conducted to estimate values from NBT tours being added on to business trips. The assessments should, rather than estimate the optimal visitor level, also identify the most sensitive element of capacity for a specific NBT destination and use this information to set the suitable level of tourism, transitioning to an approach defined by the desired conditions of the destination. Consideration should also be given to opportunities to regional coordination around NBT to determine how to coordinate around issues of pricing, packages, and further benefit from approximately 20-28 percent of arrivals in Rwanda being from the East African Community and 23-30 percent from Africa as a whole. Beyond bed-nights, headcounts, and tourism revenues, new metrics should be applied in measuring the industry's value (economic, social, and environmental) in Rwanda.

Figure 3.8: Rwanda's development management areas



Source: UN World Tourism Organization (2009) Framework for tourism development: sustainable tourism development masterplan for Rwanda, January 2009

Each of the DMAs should be planned within a green, resilient, and inclusive development framework for Rwanda, with an emphasis on local value-added activities. The development of these segments will require planning, spatial allocation, as well as strategic linkages to other socio-economic development plans. These will have to reflect the innovative products and tourism services, and new infrastructure that will support tourism growth (e.g., cultural heritage centers and museums, amusement parks, sports facilities, and community halls). All the satellite and secondary cities in Rwanda will be compelled to allocate some of those segments in their programs and will also be required to create green space for recreation and leisure activities. Human settlement and urbanization will happen in and around key tourism attractions, and land use planning and allocation will need to reflect that aspect and also consider the implication this could have on ecosystem services, and so on. For such analyses robust data on the tourism sector, natural capital and ecosystem services will be key to support evidence-based decision-making.

Private sector participation in PA management and upgrading parks could also help expand and diversify NBT. For example, wildlife experiences in VNP that would benefit from enhanced management and quality (e.g., Golden Monkey, Fossey Grave, and Bisoke treks) could be outsourced to the private sector, community-based enterprises and/or a joint-venture partnership. Furthermore, other natural attractions such as water-based activities on Lake Kivu, the Congo-Nile Trail, and river-based adventure sports on Rwanda's rivers could be explored, engaging local people to provide visitors services. In ANP, the fishing agreement with the COPABARWI fishing cooperative (a cooperative ANP

has worked with since 2015) yielded over 130 tons of fish harvested from the park's lakes, earning over US$102,000 for their 20 members in 2021. The fishery activities also contributed 5 percent to the overall park income, helping diversify revenue streams. Such NBT options would provide commercial benefits while contributing to conservation. CMPs could also be used to generate private investments in areas (such as wetlands) to serve as hubs for ecotourism and recreation.

As part of its strategic long term debt sustainability and financing strategy, the GoR can potentially explore opportunities to develop performance-based, sustainability-linked financing instruments, along with tapping into non-debt solutions tied to structured bonds, the carbon markets, and private sector led equity investments. These include various kinds of output-based bonds, for example based on conservation of wildlife or forests, or green investments; funds to support biodiversity and climate change adaptation, and results-based payments, for example from reduced emissions through avoided deforestation and forest degradation (Box 3.3). As part of the United Nations Framework Convention on Climate Change (UNFCCC) and Convention on Biological Diversity (CBD) Conference of the Parties' (COP) in 2022, additional frameworks and financing mechanisms are being considered (including by a multi-agency working group in Rwanda) to explore potential policy, debt, and non-debt instruments that could mobilize funding for strategic investments, including in the NBT sector.

Box 3.3: Overview of potential instruments that could support the NBT sector

Below are brief examples of potential financing instruments and how they were applied in other countries. Financial instruments are tailored to specific funding needs and dependent on various factors, including fiscal/macro conditions and donor/investor preferences. Some of these instruments will be explored as part of an ongoing Assessment and Options Analysis of Climate and Nature Financing Instruments and Opportunities in Rwanda being done with support from the World Bank:

- **A Wildlife Conservation Bond (WCB):** In 2022, the World Bank issued a first-of-its-kind, outcome-based US$150 million bond, mobilizing private sector financing to support wildlife conservation in South Africa.
- **Biodiversity and Climate Fund:** In 2022, Papua New Guinea launched its national Biodiversity and Climate Fund (https://pngbcf.org/). Supported by UNDP, the fund was designed using the Practice Standards for Conservation Trust Funds. The Global Environment Fund has provided US$4.2m towards its establishment and management of the country's PA network. Further investment has been generated including US$5m from the Rainforest Trust to establish new PAs, as well as an annual investment of US$8.5m annually from the Government of Papua New Guinea. In 2023, the Fund is investigating the potential of debt for nature swaps and biodiversity offsets with the extractive industry.
- **Results based payments:** In 2021, Mozambique became the first country to receive results-based payments for reduced emissions from avoided deforestation and forest degradation. FCPF paid US$6.4 million for reducing 1.28 million tons carbon dioxide equivalent under the Zambézia Integrated Landscape Management Program. FCPF is expected to pay up to US$50 million for 10 million tons of carbon emissions reductions that the program should generate through 2024.
- **Forest Bond:** IFC's Forest Bond raised US$152 million from institutional investors for a REDD+ reforestation project in Kenya. Investors had the option to receive their coupon payments in either carbon credits generated by this project, or in cash.
- **Forest resilience bonds (FRB):** FRBs build upon private capital and pay-for-success contracts to provide a fixed income security with stable cash flows. The FRB is a public-private partnership that enables private capital to finance much-needed forest restoration. What differentiates the FRB from other approaches to forest restoration is not only the use of investor capital to finance treatments but also the innovative cost sharing among beneficiaries.
- **Results-based subsidy payments:** The subsidy provider (e.g., government, trust fund, or development bank) pays businesses or households to close the so-called viability or affordability gap. Payments are made only after measurable, pre-agreed results have been achieved and verified by an independent agent.

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ANNEX NOTE 1. MAIN PATTERN OF TOURISM EMPLOYMENT IN RWANDA

There are no readily available official data on tourism employment in Rwanda. There are quarterly and annual data on employment by key sectors (more on this below) and there are annual data on visitor arrivals and accommodations, but there is no publicly accessible series on tourism employment. More generally, tourism employment indicators are difficult to estimate.[29] They require information on workers directly and indirectly involved in tourism activities, in both tourism and non-tourism industries and including full-time, part-time, and seasonal workers.

One option is to use LFS data on employment by sector to approximate tourism employment. Following a survey of practice by the UN World Tourism Organization (UNWTO), the relevant sectors are transport and storage; accommodation and food service activities; arts, entertainment and recreation; and administration and support service activities. The UNWTO (2014) finds that about 78 percent of tourism enterprises are in the first two sectors—transport and storage (58 percent) and accommodation and food service activities (20 percent). Using annual LFS data, we find that the sum of employment in these four sectors closely approximates the WTTC data, though with divergent trends (Annex Figure 1, left panel). These sectors accounted for about 10.4 percent of employment in 2019, falling to 8.2 percent in 2021. LFS data also suggest that employment in transport and storage and accommodation and food service activities together account for about 78 percent of proxy tourism employment in 2021, and have been more less stable in recent years.

LFS data approximating tourism employment can both underestimate and overestimate the "true" tourism employment level. On one hand, tourism employment could include other sectors that serve holiday visitors, such as those in wholesale and retail. On the other hand, many of those in the included sectors could be serving domestic consumers and providing non-tourism related goods and services, such as trade-related transport.

Nonetheless, in the absence of more accurate data, it would be useful to explore LFS data more fully—the aggregate trends of the relevant sectors, their composition and distribution. For the remainder of this brief note, we explore data mainly on two sectors (1) transport and storage and (2) accommodation and food service activities, as they constitute the great majority of tourism-related sector employment. We look at both annual data and quarterly data.

Below are some notable patterns and striking contrasts in tourism-related sectors, with important distributional dimensions.

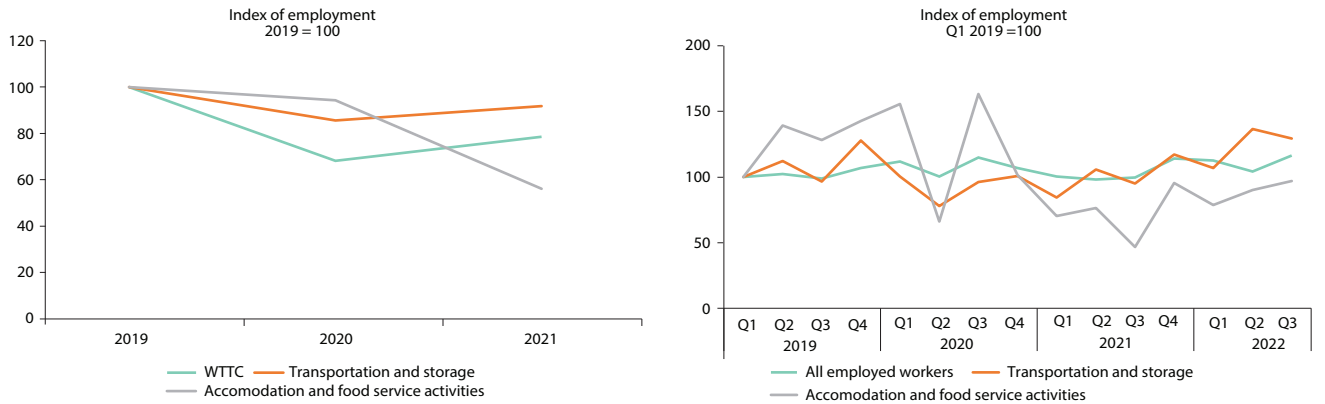
In brief, transport employment is larger and more stable while accommodation employment is smaller and more volatile. Accommodation employment is still below its pre-pandemic level. However, accommodation is more likely to employ rural workers, more likely to employ women and more likely to provide formal employment, compared to the transport sector. Promoting nature-based tourism could produce sizeable welfare gains, particularly if it helps expand the accommodation and food services sector.

[29] World Tourism Organization and International Labour Organization (2014), Measuring Employment in the Tourism Industries – Guide with Best Practices, UNWTO, Madrid.

We explain these more fully as follows.

First, transport and storage employment is less volatile than accommodation and food service activities employment. Of the two, transport and storage employment tracks well the WTTC aggregate (annual) employment data, while accommodation and food service activities employment follows a more divergent trend (Annex Figure 1, left panel). These are of course just three data points and should be interpreted with caution. Quarterly indicators (Annex Figure 1, right panel) over the past four years suggest that transport and storage employment levels follow closely aggregate (total) employment for all sectors while accommodation and food services activities employment has been more unstable.[30] Accommodation and food services employment fell sharply during the beginning of the pandemic, recovered just as sharply, and then fell steadily thereafter. While it has been rising in recent quarters, it is not yet back to its pre-pandemic levels.

Annex Figure 1. Employment by selected sectors



Source: WTTC and Rwanda Labor Force Survey, various issues

Second, transport and storage employment is mostly urban and overwhelmingly male, while accommodation and food service employment is more equally distributed, though disaggregated trends have been divergent in recent quarters. Urban workers represent about 75 percent of transport employment and male workers constitute 90 percent of the sector. In contrast, accommodation and food service employment is slightly more urban (about 60 percent) and more or less evenly divided between male and female employment. Not surprisingly, rural employment and male employment track closely the aggregate employment in transportation and storage, essentially indistinguishable in the latter case (Annex Figure 2, left panel).

Meanwhile, urban-rural and male-female employment levels track aggregate employment closely in the accommodation and food service sector through late 2020 but have since followed more divergent paths, particularly in the case of urban and rural employment levels (Annex Figure 2, right panel). As a result, rural employment in accommodation and food services is far below its pre-pandemic levels, while urban employment has exceeded these levels.

[30] The coefficient of variation of transport employment over this period—a measure of its spread, and therefore its volatility—is 0.15 while that of accommodation and food service employment is more than double at 0.34.

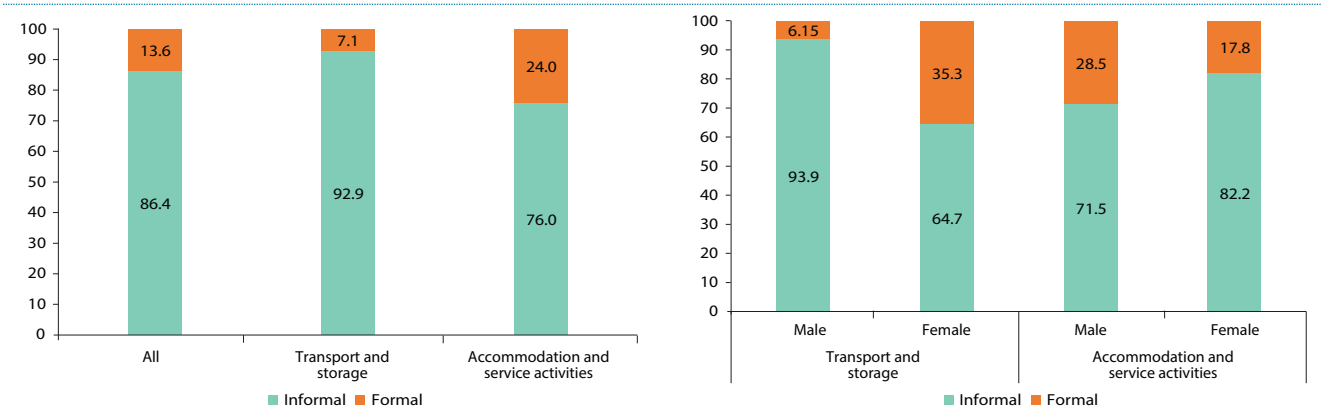
Annex Figure 2: Employment by sector: urban and rural, male and female

Source: Rwanda Labor Force Survey, various issues

Third, although employment in Rwanda is overwhelmingly informal, employment in accommodation and food service activities is much more likely to be formal. For Rwanda as a whole, employment is mostly informal—that is, about 86 percent of workers are "engaged in unregistered private business that did not keep written records of accounts," following the official definition. However, accommodation and food service activities employment is substantially more likely to be formal than transport employment. About 24 percent of workers in accommodation and food services are formally employed compared to only 7 percent in the transport sector (Annex Figure 3).

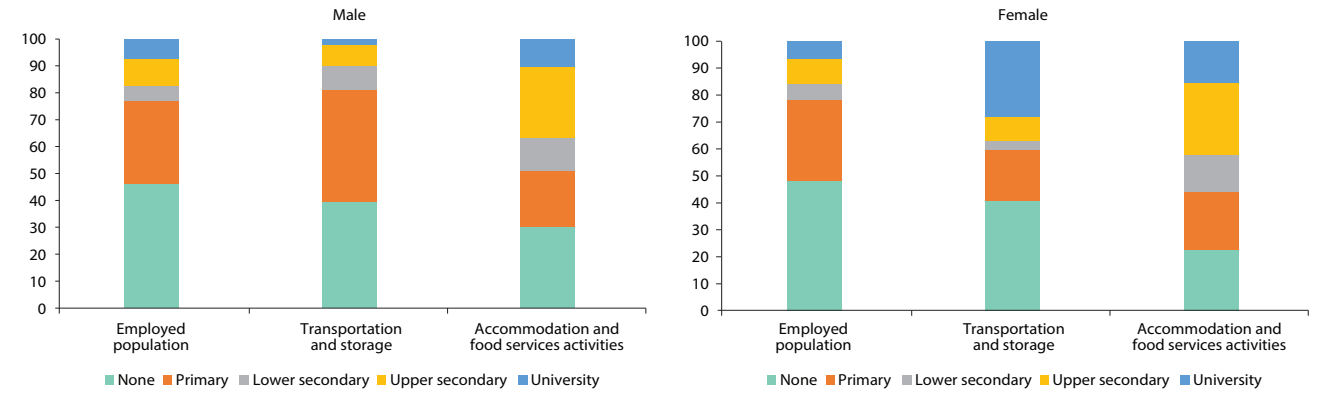
Within these sectors, female workers are more likely to be formally employed (35.3 percent) in the transport sector. They are also more likely to have university education (28 percent), compared to the men (2 percent) (Annex Figure 4). Meanwhile male workers are more likely to be formally employed (28 percent) in the accommodation sector, thought for both men and women, the sector provides more formal employment opportunities than other sectors on average.

Annex Figure 3: Formal-informal employment: by sector and by male-female



Source: Rwanda Labor Force Survey, various issues

Annex Figure 4: Educational attainment: by sector and by male-female



Source: Rwanda Labor Force Survey, various issues

The geographic distribution of tourism-related activities in Rwanda

Data on the geographic concentration of tourism-related activities in Rwanda could be a useful input to policy discussion. This information could help understand the current distribution of tourism activities and particularly nature-based tourism, giving insights into how this type of tourism activity might be distributed and which cities and communities currently benefit from its economic returns. They can also indicate who might benefit immediately from the expansion of such activities.

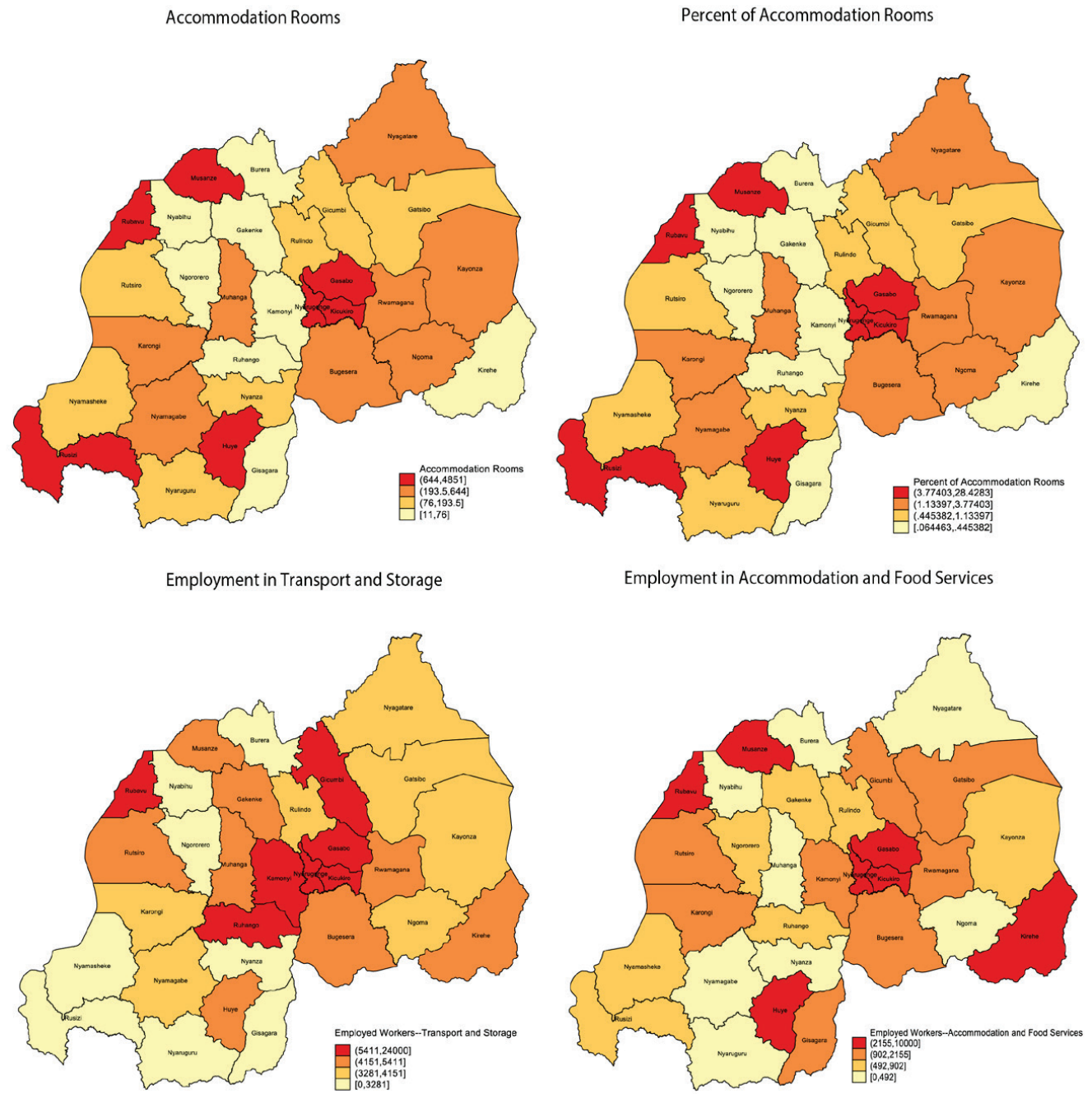
However, there is limited information on the geographic distribution of tourism-related activities. The annual statistical yearbook provides data on international visitor arrivals and departures, the regions and countries of origin of visitors, the purpose of their visit (business, holiday or something else). There also data on the number of visitors by national park (Volcanoes, Akagera, Nyungwe), though not distinguishing between foreign and domestic visitors. The aggregate data are on an annual basis and data are available through 2020. Within Rwanda, other than the number of visitors by national park, there are no other data (to the best of our knowledge) on the geographic distribution of concentration of tourism activities.

One possible proxy is the number of accommodation rooms by district and province. The annual statistical yearbook provides the information and data are available through 2020. Because this represents one dimension of the current state of tourism infrastructure—and will likely not vary widely from one year to the next—it is a useful approximation of both the distribution of current tourism activities and the distribution of the benefits from tourism expansion.

Another proxy would be to see the current distribution of employed workers in relevant sectors. The annual labor survey report provides data on employed workers by sector and district. Following our previous analysis, we could look at the geographic distribution of those in the transport and storage and accommodation and food services.

Annex Figure 5 illustrates the geographic distribution of accommodation rooms and employment in tourism related sectors. The charts in the top panel represent the number of accommodation rooms in absolute terms (left) and in percent of total (right). The charts in the lower panel represent the number of workers in transport and storage (left) and accommodation and food services (right). These are the latest available data, 2020 in the case of accommodation rooms and 2021 for employment data.

Annex Figure 5: Geographic distribution of tourism-related facilities and employment



Source: Rwanda Statistical Yearbook 2021 and Labor Force Survey: Annual Report 2021

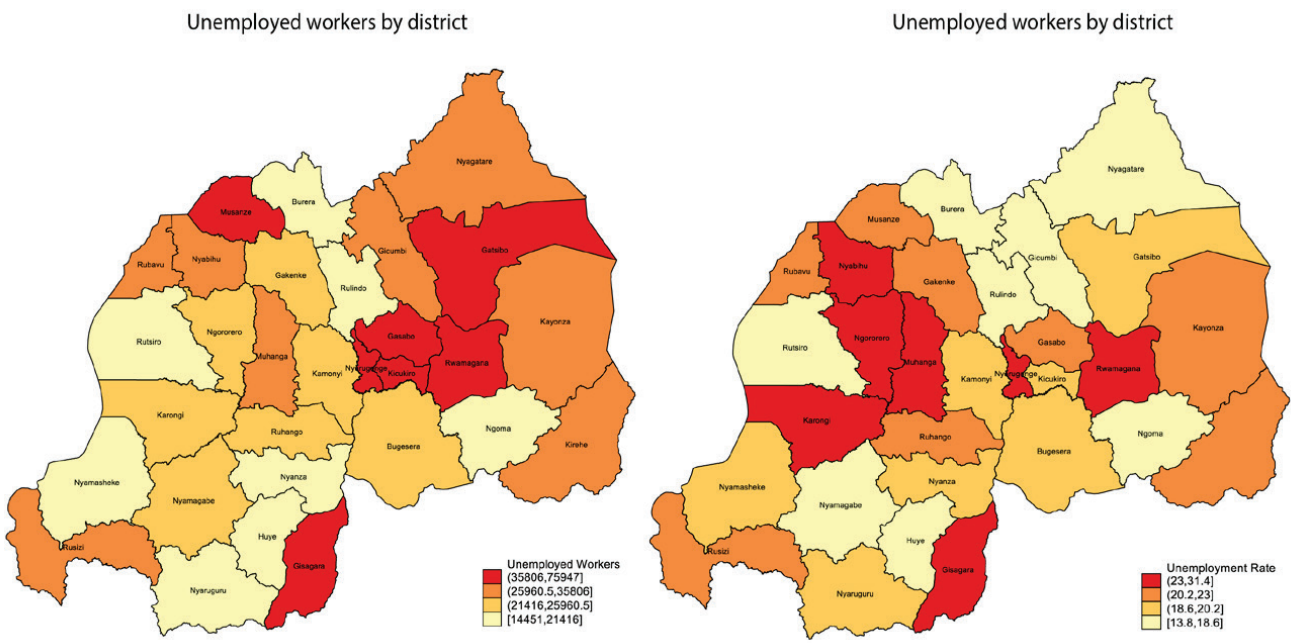
There is a strong geographic concentration of accommodation rooms. Over 50 percent of existing accommodation can be found among the districts of the City of Kigali, led by Gasabo (28 percent), and the West Province is a very distant second at 17 percent, led by Rubavu (7 percent).

Employed workers in tourism-related sectors are also concentrated among the districts in the City of Kigali though they are more proportionately distributed across provinces and districts. Nearly 30 percent of workers in transport and storage are in the districts of the City of Kigali and more or less evenly distributed among the other provinces. Employed workers in accommodation and food services are more concentrated in the districts of the City of Kigali (35 percent) and the East Province (23 percent).

It is not clear whether unemployed workers could immediately benefit from an expansion of tourism activities, as currently structured. This is of course not the only measure of potential benefit from expanding nature-based tourism. But such an expansion creates new jobs that directly or indirectly serve the tourism sector. And the immediate beneficiary would be workers currently seeking employment opportunities, assuming they have the required qualifications.

Many unemployed workers are away from the centers of current tourism activity. Annex Figure 6 suggests that although about a fifth of unemployed workers are in districts of the City of Kigali (19 percent), slightly more are in the districts of the East and South Provinces (25 and 22 percent of unemployed workers, respectively), led by Rwamagana in the East and Gisagara in the South, away from the current centers of tourism activity and where the unemployment rates are about 10 percentage points above the national average.

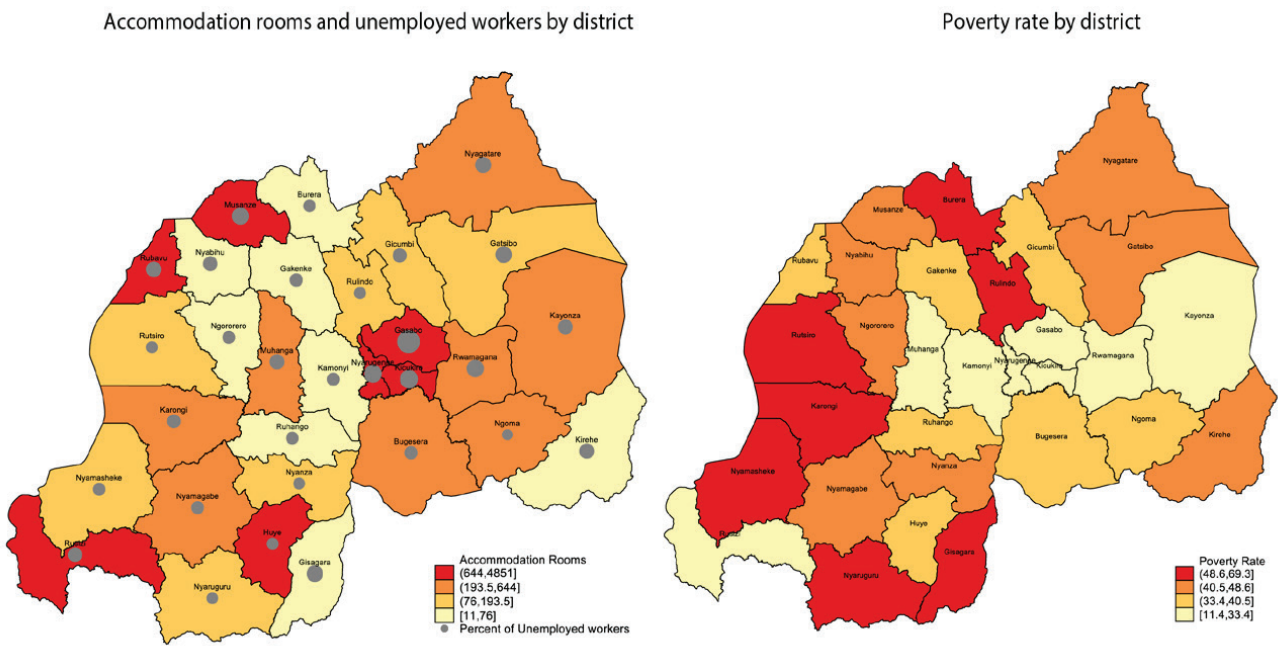
Annex Figure 6: Geographic distribution of unemployment



Source: Rwanda Labor Force Survey: Annual Report 2021

Tourism is geographically concentrated while unemployment and poverty are not. Annex Figure 7 (left panel) brings together the maps of unemployment and accommodation rooms—the heat map represents the concentration of accommodation rooms while the gray points represent unemployed workers in percent of total. As previously suggested, tourism activity and tourism infrastructure are currently geographically concentrated while unemployment is not. One index of concentration is the Herfindahl–Hirschman Index (HHI). Although this index is typically used to measure market concentration, it can be used to calculate the geographic concentration of tourism and unemployment, larger values of which signify greater concentration.[31] The HHI of unemployment is 391 while the HHI of accommodation rooms is 1,361.

Annex Figure 7: Poverty, unemployment and tourism



Similarly, there are pockets of poverty away from tourism center. As Annex Figure 6 (right panel) illustrates, there are high rates of poverty in the West and South Provinces away from the City of Kigali. Of course, this could be endogenous, illustrating the very benefits of tourism – i.e., that tourism could have provided opportunities for people to move out of poverty. However, further expansions to tourism activity will need to think about a viable strategy to reach those currently outside its centers of activity.

In sum, promoting tourism could be economically beneficial and pro-poor, but such a strategy needs to think about how new employment opportunities could be accessible to those who need it most. It requires thinking about districts and provinces that have deep pockets of unemployment and how their jobless workers can gain to access these opportunities, ensuring that they are both sufficiently mobile and qualified.

[31] In this case, we sum the square of the tourism or unemployment share of each district. This index has been used to measure the geographic concentration of trade by country.

ANNEX NOTE 2: RECOMMENDATIONS FOR IMPROVEMENT OF THE TRSP

Recommendations for improvement of the TRSP

Phase	Recommendation
Revenue sharing policies	Clarify criteria to reduce ambiguity and misinterpretation and make the criteria public
Revenue allocation	Increase funding support to community livelihood projects by restructuring revenue allocation to: • 70% livelihoods projects, including MSME support, micro-credit; community business buy-in fund; capacity building and implementation support • 25% infrastructure support, with matched funding from government • 5% emergency fund, in an interest-bearing account
Project preparation	• Develop clear schedule, guidelines and criteria • Revise, clarify and make stakeholders aware of the selection criteria • Revise and simplify the proposal submission procedure into a two-step process (1. Submission of a 2-page expression of interest; 2. A full proposal for those selected) • Expand eligible applications to include CBOs, non-CBOs if project benefits more than 10 households, and NGOs working with communities • Support and build capacity for communities to submit proposals • Provide feedback on rejected proposals
Project selection process	1. Revise the selection process, with greater participation of community members, and provide for communities to collectively decide what proposals to submit to ensure ownership 2. Revise composition of the Project Revenue Sharing Committee (PRSC) at each NP 3. Make public the members of the PRSC, and include external experts in the committee 4. Introduce a project awards ceremony to raise visibility and strengthen accountability
Implementation process	1. Provide direct funding, where recipients have bank accounts and demonstrate ability to manage funds and report on outputs 2. Build capacity, with NGOs and private sector providing capacity support and linkages with other programs 3. Practice adaptive management, particularly if a project is no longer feasible, so funds can be re-allocated
Monitoring and evaluation	1. At least one M&E senior officer in RDP to monitor and report on the TRSP 2. Develop a system for monitoring including tools (e.g. smart phone platforms) 3. Compile bi-annual reports on project progress, distributed to RDB, Districts, Cells and Sectors for presentation at community meetings

Source: Adapted from Conservation Capital and ALU (2021) Rwandan tourism revenue sharing program review: Rwanda Development Board, Final draft, 8 April 2021, Report to the International Gorilla Conservation Program and Rwanda Development Board

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