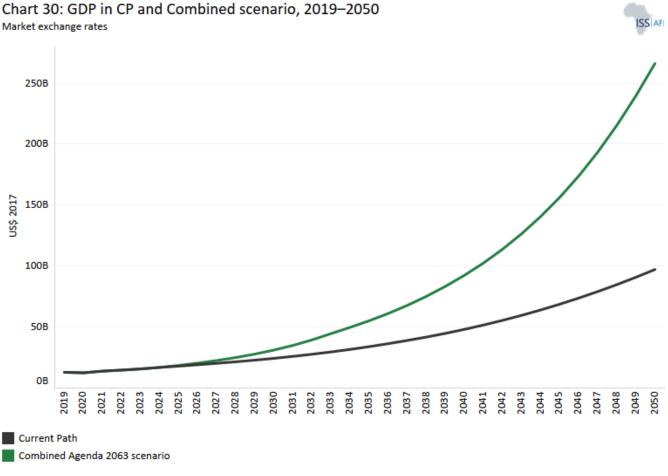




Enoch Randy Aikins and Alize le Roux

Last updated 06 November 2024 using IFs v7.84

### Current Path vs Combined Agenda 2063 scenario



Source: IFs 7.84 initialising from IMF World Economic Outlook database

The Combined scenario combines all eight sectoral scenarios, namely Governance, Demographics and Health, Education, Large Infrastructure and Leapfrogging, Agriculture, Manufacturing, AfCTA and Financial Flows.

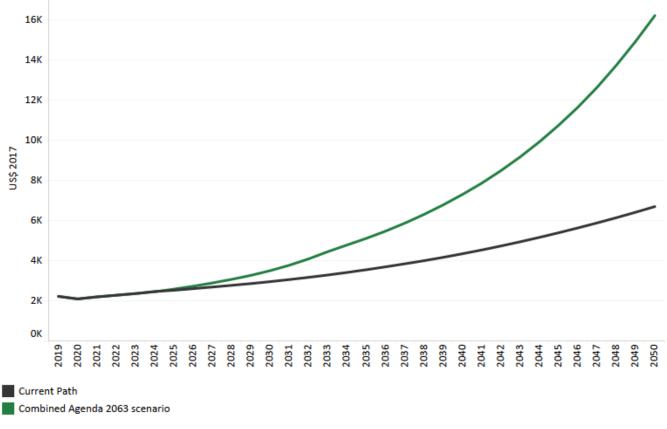
In this section, the study compares the Combined scenario with the Rwanda Vision 2050 targets for 2035 and 2050.

Chart 30 shows GDP in Current Path forecast and Combined scenario, from 2019 to 2050.

Rwanda's GDP will rise to US\$126.7 billion in the Combined scenario, which is more than twice the US\$59.6 billion in the Current Path by 2043. By 2050, total GDP will rise further to US\$267.1 billion. This will exceed the Current Path of US\$97.2 billion, meaning that the Combined scenario will increase the size of the economy by an additional US\$169.9 billion by 2050 — an increase of 174.8% compared to the Current Path.

# Chart 31: GDP per capita in CP and Combined scenario, 2019–2050

Purchasing power parity



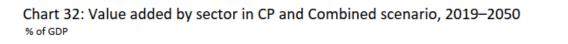
Source: IFs 7.84 initialising from UN Population Division World Population Prospects and WDI data

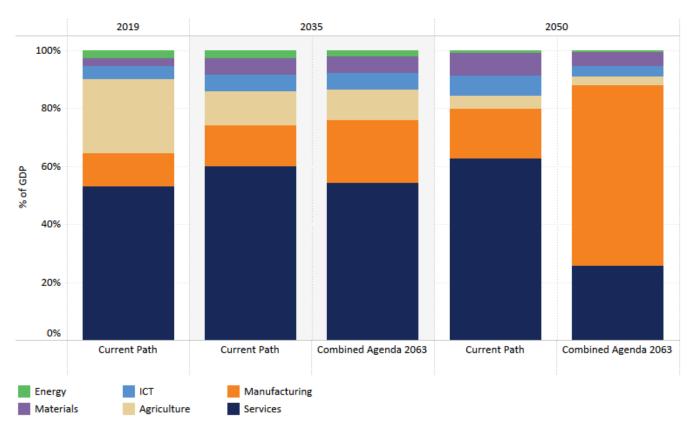
Chart 31 shows GDP per capita in the Current Path forecast and the Combined scenario, from 2019 to 2050.

In the Combined scenario, Rwanda's GDP per capita will increase to US\$5 109 by 2035. This will be US\$1 565, or 44%, higher than the US\$3 544 on the Current Path and US\$1 073, or 26.6%, more than the target of US\$4 036 set for 2035 indicated in the Vision 2050 blueprint. By 2050, Rwanda's GDP per capita in the scenario will reach US\$16 262, almost 30.3% more than its target of US\$12 476 and more than twice the amount of US\$6 691 projected on the Current Path.

The Combined scenario can lead to additional US\$3 786 by 2050 compared to the Vision 2050 target and additional US\$9 570 compared to the Current Path in the same year. It means that Rwanda has the potential to become a high-income country by 2050 as stipulated in the Vision 2050 document; however, this will require targeted intersectoral policy interventions which are necessary for achieving sustainable development in Rwanda.

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Source: IFs 7.84 initialising from IMF World Economic Outlook database

Chart 32 presents the value added by sector in the Current Path forecast and Combined scenario; for 2019, 2035 and 2050.

The structure of the Rwandan economy will undergo significant transformation in the Combined scenario. By 2035, the service sector will still be the largest contributor to GDP at 54% although this will be lower than the Current Path of 59.8% but higher than the target of 49% in the Vision 2050. The manufacturing sector will be the second-largest contributor to GDP in the scenario by 2035 with a share of 21.8% — higher than the Current Path of 14.3% but below the 24% target in the Vision 2035. The share of the agriculture sector will decline to 10.6% in the Combined scenario compared to 11.6% in the Current Path in 2035. However, this will be lower than the 21% target in the Vision 2050 for the same year. In the Combined scenario, the materials, ICT and energy sectors will constitute 5.9%, 5.5% and 2.1%, respectively.

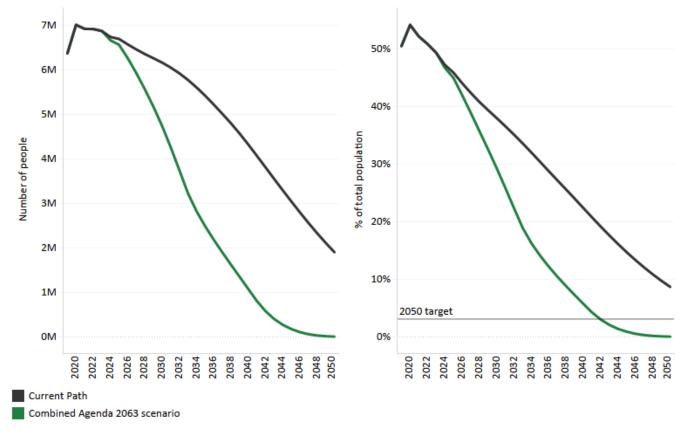
Manufacturing will overtake the service sector to be the leading contributor to GDP by 2050, contributing about 62.2% instead of 17.1% in the Current Path. At this rate, it will be almost twice the target of 33% in the Vision 2050. The share of the service sector in the Combined scenario will decline to 25.7% compared to the Current Path of 62.6% and the Vision 2050 target of 42% by 2050. The contribution of the agriculture sector will significantly decline to about 3% of GDP in the scenario against the 4.5% in the Current Path. This will be 18 percentage points below the target of 21% stated in the Vision 2050 document in 2050. The materials sector will contribute 4.7% to GDP, while the ICT and energy sectors will contribute 3.8% and 0.7%, respectively, to GDP in the scenario by 2050.

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Chart 33: Poverty in CP and Combined scenario, 2019–2050



Number of people and % of population

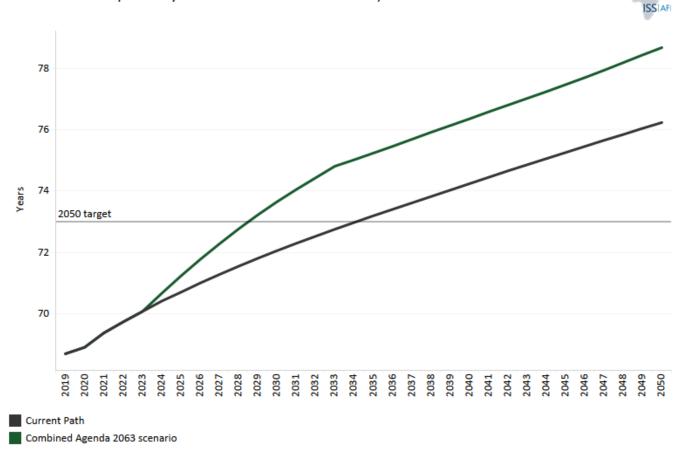


Source: IFs 7.84 initialising from UN Population Division Population Prospects estimate, WDI population data and PovcalNet World Bank data

Chart 33 presents poverty in the Current Path forecast and the Combined scenario, from 2019 to 2050.

In the Combined scenario, both the number and proportion of poor people in Rwanda will significantly decline. By 2043, about 403 000 people in the country will be living in extreme poverty. This means that, compared to the Current Path, 3.1 million more people could be lifted out of poverty by 2043 in this scenario. This is equivalent to a decline of 15.5 percentage points compared to the Current Path of 2.1% in 2043. In addition, the proportion of poor people in Rwanda in the Combined scenario is 16.1 percentage points lower than the average (18.1%) for low-income African countries by 2043. Indeed, by 2050 only about 9 000 people, equivalent to 0.04% of the population, will be living in extreme poverty meaning the country can meet its target of eliminating poverty in the Combined scenario.



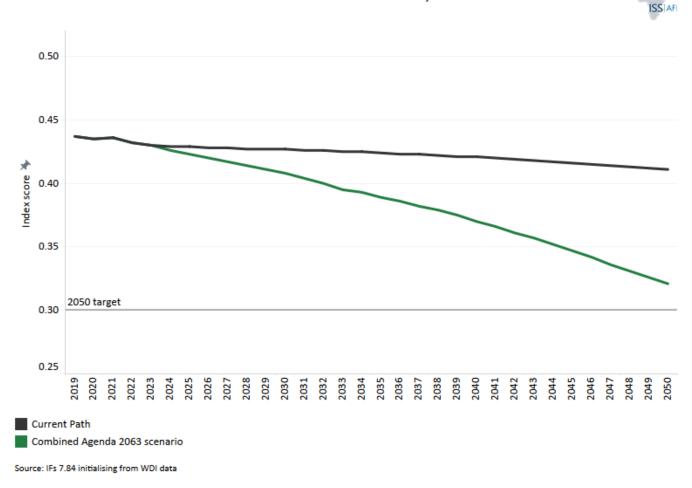


Source: IFs 7.84 initialising from Institute for Health Metrics Evaluation GBD Foresight Tool data

Chart 34 shows life expectancy in the Current Path forecast and the Combined scenario, from 2019 to 2050.

The Combined scenario will reduce Rwanda's infant mortality rate to 6.6 deaths per 1 000 live births in 2035 and to 4.2 deaths per 1 000 live births by 2043. It means that Rwanda will surpass its Vision 2050 target of 25 deaths per 1 000 live births by 2035 and 18 deaths per 1 000 live births by 2050 in both the scenario and Current Path. The infant mortality rate will decline further reaching 11.7 deaths per 1 000 live births in the Current Path compared to 4.2 deaths per 1 000 live births in the scenario by 2043. Indeed, by 2050, marking the end of the implementation of the Vision 2050, the infant mortality rate will decline to 2.3 deaths per 1 000 live births. This will be about seven fewer deaths per 1 000 live births than in Rwanda's Current Path and about 16 fewer deaths than the Vision 2050 target.

In the Combined scenario, life expectancy will increase to 75.2 years by 2035, which will be 1.5 years higher than the country's Current Path in the same year and about 3.5 years higher compared to the target of 73.1 years set in the Vision 2050. By 2050, the average life expectancy will rise to 78.7 in the scenario, which will be about two years more than the Current Path and almost six years more than the target of 73 years in the Vision 2050. In fact, in the Combined scenario, Rwanda achieves its Vision 2050 target on life expectancy as early as 2029.

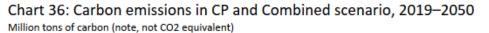


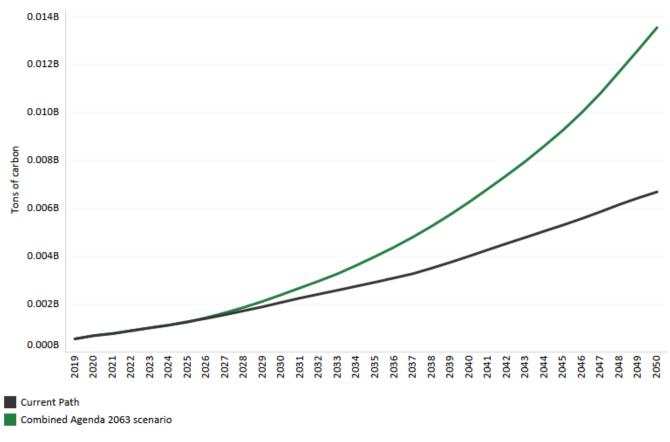
### Chart 35: Domestic Gini in the CP and the Combined scenario, 2019–2050

Chart 35 presents domestic Gini coefficient in the Current Path forecast and the Combined scenario, from 2019 to 2050.

The benefits of economic growth may not be evenly distributed in a country due to inequality. High levels of inequality have many negative effects including a breakdown of social structure and cohesion, which can result in instability. The Gini coefficient is the standard measure of the level of inequality in a country. A higher score depicts greater inequality while a lower score shows a more equal country. Historically, Rwanda has had high levels of inequality despite improvements over the years.

In 2019, Rwanda's Gini coefficient was 0.44 compared to the score of 0.40 for the average low-income country in Africa. This makes Rwanda the seventh most unequal country among the 23 low-income countries in Africa and the 21st most unequal in Africa. By 2035, Rwanda's Gini coefficient will improve to 0.42 and further reach 0.41 by 2050 on the Current Path. In the Combined scenario, inequality in Rwanda will reduce more rapidly than on the Current Path, reaching 0.36 by 2035 and 0.32 by 2050, which means that the Combined scenario has the potential to reduce inequality in Rwanda by 28% relative to the Current Path in 2043. Despite this improvement in inequality in the Combined scenario, it will not be enough to achieve the target of 0.35 by 2035 and 0.3 by 2050 as stipulated in the Vision 2050 strategy document.





Source: IFs 7.84 initialising from Carbon Dioxide Information Analysis Center data

Chart 36 presents carbon emissions in the Current Path forecast and the Combined scenario, from 2019 to 2050.

Carbon is released in many ways, but the three most important contributors to greenhouse gases are carbon dioxide ( $CO_2$ ), carbon monoxide (CO) and methane ( $CH_4$ ). Since each has a different molecular weight, we use carbon. Many other sites and calculations use  $CO_2$  equivalent.

Environmental sustainability in Rwanda continues to be a challenge with increasing population density and deforestation, among other factors. The country was ranked 124th out of 182 countries on the 2020 Country Index of the Notre Dame Global Adaptation Initiative (ND-GAIN), which measures a country's susceptibility to climate change. The cost of climate change to Rwanda will reach an additional 1% of GDP by 2030 and 4% of GDP by 2050. This emanates from shifts in seasonal variations in temperature, extreme weather conditions in the Northern Province and Western Province and droughts in the low-lying Eastern Province damaging infrastructure, health, agriculture and livelihoods. However, the country is taking steps to ameliorate the situation.

Rwanda's attempt to control climate change by adopting the environment and climate change policy is in line with its National Strategy for Transformation. In its updated Nationally Determined Contributions (NDC), the country estimated a 38% reduction of greenhouse gas emissions, equivalent to 4.6 million tonnes of carbon dioxide equivalent, valued at US\$11 billion, compared to business as usual scenario by 2030. To achieve this, the country has created the Rwanda Green Fund, which has raised US\$217 million to finance investment in renewable energy, sustainable urbanisation and climate smart agriculture. In 2019, Rwanda released about 1 000 tons of carbon, reflecting the low levels of carbon emissions in the country. This makes it the 38th-largest emitter of carbon in Africa and 13th-largest emitter among the 23 low-income African countries. On the Current Path, carbon emissions will quintuple to 5 000 tons by 2043 from its low base in 2019. In the Combined scenario, Rwanda's total carbon emissions will rise to 14 000 tons and will be twice higher than what is estimated in the Current Path by 2050. It means that achieving sustainable economic development will come at the cost of environmental pollution in Rwanda. However, the country can rely on its renewable energy potential to reduce carbon emissions.

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