Mozambique
Sectoral Scenarios for Mozambique

Alize le Roux
Sectoral Scenarios for Mozambique

- Stability scenario
- Demographic scenario
- Health/WaSH scenario
- Agriculture scenario
- Education scenario
- Manufacturing scenario
- Leapfrogging scenario
- Free Trade scenario
- Financial Flows scenario
- Infrastructure scenario
- Governance scenario
- Impact of scenarios on carbon emissions

Stability scenario

Chart 13: Governance security in CP and Stability scenario, 2019–2043

IFS index 0–1

The Stability scenario represents reasonable but ambitious reductions in risk of regime instability and lower levels of
internal conflict. Stability is generally a prerequisite for other aspects of development and this would encourage inflows of foreign direct investment (FDI) and improve business confidence. Better governance through the accountability that follows substantive democracy is modelled separately.

The intervention is explained here in the thematic part of the website.

Mozambique has a higher level of governance security compared to the average for Africa’s low-income countries but falls below the average for all African countries (Chart 13). Mozambique enjoys more civil and political freedoms than the average low-income country in Africa although it has a history of violence and instability.

Shortly after Mozambique gained independence, the country was caught up in a civil war that lasted a decade and a half. The peace accord of 1992 started a two-decade period of rebuilding where greater political stability encouraged investment and much-needed development.

The balance between collaboration and hostility between RENAMO (Mozambique National Resistance) and the ruling FRELIMO (Front for the Liberation of Mozambique) party was again disturbed in 2013 when tensions resurfaced within the northern and central areas of the country. While a new peace agreement was signed in 2019, the splintering of RENAMO caused ongoing concerns.

Since 2017, a new threat from Islamist militants has emerged in the northern provinces of Mozambique. In April 2021 it was estimated that 745 000 people have been displaced in the northern provinces as a result of the ongoing insurgency. [1] It remains a high priority for the government to provide stability within a region that has great economic growth potential. The government stands to benefit greatly from a more stable country, and in the Stability scenario governance security would result in a much more stable environment by 2033.
The Stability scenario will see Mozambique's GDP per capita grow from US$1,402 in 2019 to US$3,114 by 2043, US$217 more than in the Current Path forecast for the same year. In both the Current Path forecast and the Stability scenario, GDP per capita remains below the average for low-income African countries. In 2019, Mozambique's GDP per capita fell US$258 below the average for low-income countries and this gap is expected to grow to US$1,026 by 2043 in the Stability scenario.
Increased stability has helped reduce poverty in Mozambique in the past. The stable period that followed the peace accord in 1992 saw poverty rates dropping from 85.9% to 62% in 2016. However, the debt crises unearthed in 2016 created an unstable investment period where investment temporality halted and poverty rates dramatically climbed to 68.4% by 2019.

The Stability scenario will have a positive impact on poverty rate reduction but will only benefit the country from 2030 onwards. Poverty rates in this scenario are likely to reach 36.9% by 2043, nearly 3 percentage points lower than in the Current Path forecast. This reduction will translate to 1.6 million people being lifted out of poverty by 2043, but 20.2 million people are still forecast to live below the US$1.90 extreme poverty line (Chart 15).
Demographic scenario

This section presents the impact of a Demographic scenario that aims to hasten and increase the demographic dividend through reasonable but ambitious reductions in the communicable-disease burden for children under five, the maternal mortality ratio and increased access to modern contraception.

The intervention is explained here in the thematic part of the website.

Demographers typically differentiate between a first, second and even a third demographic dividend. We focus here on the contribution of the size of the labour force (between 15 and 64 years of age) relative to dependants (children and the elderly) as part of the first dividend. A window of opportunity opens when the ratio of the working-age population to dependants is equal to or surpasses 1.7.

Mozambique has a low ratio of working-age population to dependants. In 2019, this ratio was 1.1, far below the desired value of 1.7 needed to reap the benefits of a demographic dividend. In the Demographic scenario, it is forecast that Mozambique's dependency ratio will drop much quicker than in the Current Path forecast as more working-age people enter the labour market.

In the Demographic scenario, a rate of 1.7 working-age persons to dependants is expected in 2041 for Mozambique, the same time period projected for the African continent and a year earlier than its low-income peers.
The Demographic scenario will aid Mozambique in attaining the benefits of a larger working force seven years earlier than projected in the Current Path forecast (Chart 16). This is due to a smaller and ageing population that is estimated to be 2.7 million fewer by 2043.

The infant mortality rate is the number of infant deaths per 1 000 live births and is an important marker of the overall quality of the health system in a country.

Infant mortality has substantially dropped in Mozambique over the past two decades and is less than half the figures observed at the beginning of the century. Mozambique’s infant mortality was, however, still extremely high at 49.8 deaths per 1 000 live births in 2019. This is three more deaths per 1 000 live births than the average for low-income countries in Africa. The downward trend is expected to continue in the Current Path forecast and is likely to drop to 19 deaths per 1 000 live births by 2043 (Chart 17). The interventions of the Demographic scenario see Mozambique’s infant mortality rate drop to 15.6 deaths per 1 000 live births by 2043.
The Demographic scenario marginally increases GDP per capita. By 2043, Mozambique’s GDP per capita is expected to increase to US$2,897 and US$2,993 respectively in the Current Path forecast and the Demographic scenario (Chart 18). The GDP per capita gap between the average for low-income countries and Mozambique is forecast to widen to US$932 by 2043, US$674 more than in 2019.
The Demographic scenario will have a positive impact on the poverty rate but only by a small margin of less than 2% (Chart 19). The Demographic scenario reduces the poverty rate to 38% by 2043, compared to 39.7% in the Current Path forecast. Even though the poverty rate only drops by 1.7 percentage points, the Demographic scenario reduces the amount of people living in extreme poverty by 1.98 million by 2043.
This section presents reasonable but ambitious improvements in the Health/WaSH scenario, which include reductions in the mortality rate associated with both communicable diseases (e.g. AIDS, diarrhoea, malaria and respiratory infections) and non-communicable diseases (NCDs) (e.g. diabetes), as well as improvements in access to safe water and better sanitation. The acronym WaSH stands for water, sanitation and hygiene.

The intervention is explained here in the thematic part of the website.

In 1985, when civil conflict peaked in the country, the life expectancy of Mozambique’s population was 41.9 years, among the lowest in the world. By 2019, this figure had improved to 62 years but still falls significantly behind the average for Africa by 3.8 years and falls behind the average for low-income countries by 1.8 years.

In the Current Path forecast, this figure is expected to improve by 10 years resulting in a life expectancy of 72.1 years by 2043, on par with the forecast for African countries and 1.3 years above the average for Africa’s low-income peers.

Basic sanitation and infrastructure improvements as suggested in the Health/WaSH scenario will impact life expectancy positively. Life expectancy is expected to reach 72.9 years by 2043, surpassing the average life expectancy for Africa and its low-income countries (Chart 20).
Chart 21 displays the impact of the Health/WaSH scenario on infant mortality rates (infant deaths per 1 000 live births). The Health/WaSH scenario will reduce infant deaths more quickly than the in Current Path forecast, lowering the under-five mortality rate to 17 deaths per 1 000 live births by 2043, compared to 19 for the Current Path forecast.
Agriculture scenario

The Agriculture scenario represents reasonable but ambitious increases in yields per hectare (reflecting better management and seed and fertilizer technology), increased land under irrigation and reduced loss and waste. Where appropriate, it includes an increase in calorie consumption, reflecting the prioritisation of food self-sufficiency above food exports as a desirable policy objective.

The data on yield per hectare (in metric tons) is for crops but does not distinguish between different categories of crops.

Agriculture forms a significant component of the Mozambique economy. In 2019, it was responsible for employing 7.2 million of Mozambique’s 12.9 million labour force and contributed 20.9% to the country’s GDP. In 2019, yields in Mozambique stood at 3.7 metric tons per hectare, 1 ton per hectare more than the average for low-income countries in Africa (Chart 22).

Nevertheless, yields remain low in comparison to the country’s agricultural potential. The ten agro-ecological zones of Mozambique offer the potential to support a wide variety of productive agricultural produce. However, low labour productivity, high post-harvest losses and recurring droughts and flooding have raised deep concerns for food security.
In the Agriculture scenario, it is forecast that yields will increase to 10.5 metric tons per hectare by 2043. The Agriculture scenario will improve yields with 5.6 metric tons per hectare compared to the Current Path forecast by 2043, a result of the underlying constraints to the sector being addressed.

Mozambique’s rural communities are extremely vulnerable to food insecurity, in part due to the high frequency of droughts and flooding but also due to the subsistence nature of rain-fed agricultural practices. In 2019, total agricultural demand exceeded production by 2.4 million metric tons, accounting for a 10.7% import dependency. In the Current Path forecast, demand is predicted to exceed production in 2043 by 16.9 million metric tons, a significant import dependency of 34.2% (Chart 23).

The Agriculture scenario will benefit Mozambique greatly through increasing yields, reducing vulnerable rain-fed crops through irrigation schemes, reducing post-harvest losses and tapping into Mozambique’s agricultural potential. In this scenario, Mozambique can achieve a production surplus by 2030 and will produce 33.8 million metric tons more by 2043 than in the Current Path forecast.
Chart 24 displays GDP per capita for Mozambique in the Current Path forecast and in the Agriculture scenario. The Agriculture scenario will have the biggest impact on GDP from all the scenarios proposed, increasing per capita income by US$383 over the Current Path forecast by 2043. GDP per capita will remain below the average for low-income countries in Africa in both scenarios.
The Agriculture scenario is expected to reduce poverty the most in Mozambique of all the individual sectoral interventions proposed. In the Agriculture scenario, the poverty rate will decrease from 68.4% in 2019 to 32.8% by 2043 (Chart 25). Poverty rates will however still be above the average for low-income economies in Africa. The Agriculture scenario will result in 3.9 million fewer people in extreme poverty by 2043 compared to the Current Path forecast. The number of people living in extreme poverty in 2043 will remain high at 21.8 million and 17.9 million in the Current Path forecast and the Agriculture scenario respectively.
The Education scenario represents reasonable but ambitious improved intake, transition and graduation rates from primary to tertiary levels and better quality of education. It also models substantive progress towards gender parity at all levels, additional vocational training at secondary school level and increases in the share of science and engineering graduates.

The intervention is explained here in the thematic part of the website.

Mozambique spends 6.3% of GDP on Education, the third highest among low-income countries in Africa. However, the country is characterised by low socio-economic development, highlighting the long time it takes to reap the benefits of investment in education. Even though literacy rates have doubled since the 1980s, they remain low at 59% in 2019. In the Education scenario, literacy rates are forecast to reach 84.5% by 2043, 2.4 percentage points higher than in the Current Path forecast.

The mean years of education in Mozambique is very low at 3.6 years in 2019, 0.8 years less than the average for its low-income peers. Partly to blame are the low completion rates at both primary and lower secondary level, with the former being 58% and the latter being 24% in 2019. The benefits of investment in education are more noticeable by 2043, when mean years of education improves to 6.3 years in the Education scenario, narrowing the gap between Mozambique and its income peers to 0.4 years (Chart 26).
Chart 27A displays the average test scores for primary learners in Mozambique in the Current Path forecast and in the Education scenario. Mozambique’s primary test score in 2019 was 30.6%, and by 2043, it is expected to increase to 33.6% in the Current Path forecast. Mozambique is expected to benefit from the Education scenario and is forecast to attain average test scores for primary learners of 38.9% by 2043, 5.3 percentage points higher than in the Current Path forecast. Average test scores for primary learners remained higher than the average for low-income countries in Africa by 2043, reflecting the high spending on primary education in the country’s GDP expenditure.

Chart 27B displays the average test scores for secondary learners in Mozambique in the Current Path forecast and in the Education scenario. In the Education scenario, the test score at the secondary level is 44.8% in 2043, up from 33.4% in 2019. The Education scenario is expected to result in test scores for secondary learners to be 7 percentage points higher by 2043 than the Current Path forecast at 37.8%. While average test scores for secondary learners were behind the average for low-income countries in Africa in 2019, they catch up by 2043 in the Education scenario.
Chart 28 displays the marginal impact of the Education scenario on GDP per capita in Mozambique. By 2043, GDP per capita is expected to increase to US$2 998 in the Education scenario, compared to US$2 897 in the Current Path forecast (Chart 28). GDP per capita for Mozambique is expected to continue to lag behind its income peers, with a growing per capita income gap until 2043.
In the Education scenario, it is expected that extreme poverty in Mozambique will decrease to 37.4% by 2043 compared to 68.4% in 2019. This will result in 20.4 million people living in extreme poverty by 2043, 1.4 million fewer than in the Current Path forecast.
Manufacturing scenario

Chart 30: Value added by sector in CP and Manufac/Transfers scenario, 2019-2043

The Manufacturing/Transfers scenario represents reasonable but ambitious manufacturing growth through greater investment in the economy, investments in research and development, and promotion of the export of manufactured goods. It is accompanied by an increase in welfare transfers (social grants) to moderate the initial increases in inequality that are typically associated with a manufacturing transition. To this end, the scenario improves tax administration and increases government revenues.

The intervention is explained here in the thematic part of the website.

Chart 31 should be read with Chart 8 that presents a stacked area graph on the contribution to GDP and size, in billion US$, of the Current Path economy for each of the sectors.

In the Manufacturing/Transfers scenario, the service sectors will continue to be the largest contributor to the economy and will contribute an additional US$2.4 billion to the GDP by 2043, representing a 0.75 percentage-point improvement compared to the Current Path forecast.

The Manufacturing/Transfers scenario will not improve the contribution of the other sectors above the Current Path forecast. In fact, the scenario forecasts a decline in contributions compared to the Current Path forecast for the energy, manufacturing, agriculture and materials sectors (Chart 30). The manufacturing sector will however contribute
US$390 million more to the economy than in the Current Path forecast.

In 2019, social welfare spending (government welfare transfers to unskilled workers) equated to US$0.15 billion. In the Manufacturing/Transfers scenario, social welfare expenditure will increase to US$3 billion, US$1.2 billion higher than in the Current Path forecast. These values are the 10th highest among low-income countries in Africa for 2043.
The Manufacturing/Transfers scenario will have a very small impact on the GDP per capita of Mozambique in 2043, increasing it by a mere US$72 above the Current Path forecast. The GDP per capita is expected to increase to US$2,969 in this scenario compared to US$2,897 in the Current Path forecast. Both the Current Path forecast’s and the Manufacturing/Transfers scenario’s GDP per capita will still be below the average for low-income countries in Africa by 2043.
The Manufacturing/Transfers scenario has a marginal impact on reducing the number of poor people in Mozambique. In this scenario, the poverty rate will be 38.8% by 2043 compared to 39.7% in the Current Path forecast. The scenario will therefore lift an additional 500,000 people out of extreme poverty above the Current Path forecast by 2043.
Leapfrogging scenario

The Leapfrogging scenario represents a reasonable but ambitious adoption of and investment in renewable energy technologies, resulting in better access to electricity in urban and rural areas. The scenario includes accelerated access to mobile and fixed broadband and the adoption of modern technology that improves government efficiency and allows for the more rapid formalisation of the informal sector.

The intervention is explained here in the thematic part of the website.

Fixed broadband includes cable modem Internet connections, DSL Internet connections of at least 256 KB/s, fibre and other fixed broadband technology connections (such as satellite broadband Internet, ethernet local area networks, fixed-wireless access, wireless local area networks, WiMAX, etc.).

Chart 34 displays the fixed broadband subscriptions per 100 people in the Current Path forecast and in the Leapfrogging scenario. Mozambique’s fixed broadband subscriptions per 100 people in 2019 were lower than the average for low-income countries in Africa and for Africa as a whole. In the Leapfrogging scenario, fixed broadband subscriptions increase from 1.6 to 49.7 subscriptions per 100 people by 2043. This is 23.9 subscriptions more than in the Current Path forecast and higher than the average for low-income African countries.
Mobile broadband refers to wireless Internet access delivered through cellular towers to computers and other digital devices.

Chart 35 displays the mobile broadband subscriptions per 100 people in the Current Path forecast and in the Leapfrogging scenario. Mozambique had more mobile broadband subscriptions per 100 people in 2019 than the average for low-income countries in Africa and for Africa as a whole. In the Leapfrogging scenario, mobile broadband subscriptions will increase from 43.9 in 2019 to 125.4 subscriptions per 100 people by 2043. This is 2.7 subscriptions more than in the Current Path forecast but lower than the average for low-income African countries, which is estimated to reach 137.4 subscriptions per 100 people by 2043.
Electricity access in Mozambique is critically low: in total, only 27.9% of the country's population had access to electricity in 2019. This is the result of ageing infrastructure, inadequate transmission and distribution lines, a rapidly growing population and extreme weather events (such as flooding and cyclones) that have damaged infrastructure in the past.

In the Current Path forecast, it is projected that 55.4% of Mozambique's population will have access to electricity by 2043, translating to 30.4 million people. In the Leapfrogging scenario, electricity access is projected to reach 68.8% by 2043, resulting in 37.6 million people with electricity access (7.2 million additional to the Current Path forecast).

The projection indicates that in the Leapfrogging scenario rural electricity access will increase from a mere 8.7% in 2019 to 52.4% by 2043, 19.1 percentage points higher than in the Current Path forecast. For the population living in urban spaces, it is projected that in the Leapfrogging scenario, electricity access will increase from 62% in 2019 to 87% by 2043. In 2019, average electricity access for low-income African countries was 4.3% higher than Mozambique's, a gap that will grow to 6.2% by 2043 (Chart 36).
Chart 37 displays the impact of the Leapfrogging scenario on GDP per capita in Mozambique. By 2043, GDP per capita is expected to increase to US$3 170 in the Leapfrogging scenario, compared to US$2 897 in the Current Path forecast. GDP per capita for Mozambique is expected to continue to lag behind its income peers, with a growing per capita income gap throughout the forecast horizon.
By 2043, poverty will have decreased from 39.7% in the Current Path forecast to 37.2% in the Leapfrogging scenario, lifting an additional 1.4 million people out of extreme poverty. This scenario therefore improves the poverty rate, lowering it by 2.5% compared to the Current Path forecast.
The Free Trade scenario represents the impact of the full implementation of the African Continental Free Trade Area (AfCFTA) by 2034 through increases in exports, improved productivity and increased trade and economic freedom.

The intervention is explained here in the thematic part of the website.

The trade balance is the difference between the value of a country’s exports and its imports. A country that imports more goods and services than it exports in terms of value has a trade deficit, while a country that exports more goods and services than it imports has a trade surplus.

Chart 39 displays the trade balance as a per cent of GDP for the Current Path forecast and the Free Trade scenario. Mozambique’s trade deficit in 2019 stood at 21.1% of GDP. This is expected to improve significantly in the near future, peaking in 2024, as a result of revenues earned from its northern gas reserves. The longer-term forecast shows a growing import dependency and declining exports with a trade deficit peaking in 2036 at 31.4% before improving to 25.2% in 2043 in the Free Trade scenario.

The full implementation of the AfCFTA not only enables countries to export more easily but also opens them up to increased imports, endangering those sectors where they lack competitive advantage.
In the Free Trade scenario, Mozambique’s total trade increases as a per cent of GDP in materials, manufacturing and services but imports outstrip exports over the forecast horizon.

Chart 40: GDP per capita in CP and Free Trade scenario, 2019–2043

Purchasing power parity

<table>
<thead>
<tr>
<th>Year</th>
<th>Mozambique, Current Path</th>
<th>Mozambique, Free Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>1,500</td>
<td>1,600</td>
</tr>
<tr>
<td>2020</td>
<td>1,600</td>
<td>1,700</td>
</tr>
<tr>
<td>2021</td>
<td>1,700</td>
<td>1,800</td>
</tr>
<tr>
<td>2022</td>
<td>1,800</td>
<td>1,900</td>
</tr>
<tr>
<td>2023</td>
<td>1,900</td>
<td>2,000</td>
</tr>
<tr>
<td>2024</td>
<td>2,000</td>
<td>2,100</td>
</tr>
<tr>
<td>2025</td>
<td>2,100</td>
<td>2,200</td>
</tr>
<tr>
<td>2026</td>
<td>2,200</td>
<td>2,300</td>
</tr>
<tr>
<td>2027</td>
<td>2,300</td>
<td>2,400</td>
</tr>
<tr>
<td>2028</td>
<td>2,400</td>
<td>2,500</td>
</tr>
<tr>
<td>2029</td>
<td>2,500</td>
<td>2,600</td>
</tr>
<tr>
<td>2030</td>
<td>2,600</td>
<td>2,700</td>
</tr>
<tr>
<td>2031</td>
<td>2,700</td>
<td>2,800</td>
</tr>
<tr>
<td>2032</td>
<td>2,800</td>
<td>2,900</td>
</tr>
<tr>
<td>2033</td>
<td>2,900</td>
<td>3,000</td>
</tr>
<tr>
<td>2034</td>
<td>3,000</td>
<td>3,100</td>
</tr>
<tr>
<td>2035</td>
<td>3,100</td>
<td>3,200</td>
</tr>
<tr>
<td>2036</td>
<td>3,200</td>
<td>3,300</td>
</tr>
<tr>
<td>2037</td>
<td>3,300</td>
<td>3,400</td>
</tr>
<tr>
<td>2038</td>
<td>3,400</td>
<td>3,500</td>
</tr>
<tr>
<td>2039</td>
<td>3,500</td>
<td>3,600</td>
</tr>
<tr>
<td>2040</td>
<td>3,600</td>
<td>3,700</td>
</tr>
<tr>
<td>2041</td>
<td>3,700</td>
<td>3,800</td>
</tr>
<tr>
<td>2042</td>
<td>3,800</td>
<td>3,900</td>
</tr>
<tr>
<td>2043</td>
<td>3,900</td>
<td>4,000</td>
</tr>
</tbody>
</table>

Source: IFs 7.63 initialising from UN Population Division World Population Prospects and World Development Indicators data

Chart 40 displays the modest impact of the Free Trade scenario on GDP per capita in Mozambique. By 2043, GDP per capita is expected to increase to US$3,175 in the Free Trade scenario, compared to US$2,897 in the Current Path forecast, an increase of US$278 per capita. GDP per capita for Mozambique is expected to continue to lag behind its income peers, with a growing per capita income gap throughout the forecast horizon.
By 2043, poverty will drop from 39.7% in the Current Path forecast to 36.3% in the Free Trade scenario, lifting an additional 1.9 million people out of extreme poverty. This scenario therefore contributes a 3.4 percentage-point reduction in the poverty rate compared to the Current Path forecast. While poverty rates will drop from 68.4% in 2019 to 36.3% by 2043 in the Free Trade scenario, the absolute number of people living in extreme poverty will remain high at 19.9 million in 2043 (Chart 41).
Financial Flows scenario

The Financial Flows scenario represents a reasonable but ambitious increase in worker remittances and aid flows to poor countries, and an increase in the stock of foreign direct investment (FDI) and additional portfolio investment inflows to middle-income countries. We also reduced outward financial flows to emulate a reduction in illicit financial outflows.

The intervention is explained here in the thematic part of the website.

The economy of Mozambique benefited significantly from foreign direct investment after the civil war ended, leading to two decades of sustained economic growth. Nonetheless, Mozambique still struggles with endemic poverty and is highly dependent on foreign aid (Chart 42). Foreign aid plays a substantial role in ensuring the government provides the necessary social services and promotes human development outcomes. [3] Mozambique’s reliance on foreign aid is significantly above the average for low-income countries in Africa. Foreign aid flows are projected to decrease in both scenarios, equating to 9.4% in the Financial Flows scenario, compared to 8.3% for the Current Path forecast by 2043.
Foreign investment in Mozambique was high at 11.8% of GDP in 2019, ranking Mozambique second among low-income countries in Africa and is 7.5 percentage points higher than the average among its income peers. This is mainly due to Mozambique’s vast natural resources, such as LNG. For example, even with an insurgency and a pandemic occurring, Total’s investment in LNG extraction in the Cabo Delgado region continued during 2020, although at a slower pace than before. Indeed, the impact of the COVID-19 pandemic on FDI flows can be observed with a sharp decrease to 3.9% in 2020. In the Financial Flows scenario, FDI inflows increase from 2021 onwards and represent 16.3% of GDP by 2043, 1.7 percentage points higher than in the Current Path forecast.
Mozambique does not receive large amounts of remittances and is a net sender of remittance money. In 2019, net remittances were -US$0.14 billion and are projected to decrease further, reaching -US$0.6 billion in 2043 in the Financial Flows scenario.
Chart 45 displays the very small impact that the Financial Flows scenario will have on GDP per capita in Mozambique. By 2043, the GDP per capita is expected to increase to US$2,941 in the Financial Flows scenario, compared to US$2,897 in the Current Path forecast, an increase of only US$44 per capita. GDP per capita for Mozambique is expected to continue to lag behind its income peers, with a growing per capita income gap throughout the forecast horizon.

Source: IFs 7.63 initializing from UN Population Division World Population Prospects and World Development Indicators data
By 2043, the poverty rate will drop marginally from 39.7% in the Current Path forecast to 38.7% in the Financial Flows scenario, lifting an additional 580,000 people out of extreme poverty. This scenario therefore reduces the poverty rate by 1 percentage point compared to the Current Path forecast.
**Infrastructure scenario**

**Chart 47: Electricity access in CP and Infrastructure scenario, 2019–2043**

Millions of people and % of population

The Infrastructure scenario represents a reasonable but ambitious increase in infrastructure spending across Africa, focusing on basic infrastructure (roads, water, sanitation, electricity access and ICT) in low-income countries and increasing emphasis on advanced infrastructure (such as ports, airports, railway and electricity generation) in higher-income countries.

Note that health and sanitation infrastructure is included as part of the Health/WaSH scenario and that ICT infrastructure and more rapid uptake of renewables are part of the Leapfrogging scenario. The interventions there push directly on outcomes, whereas those modelled in this scenario increase infrastructure spending, indirectly boosting other forms of infrastructure, including that supporting health, sanitation and ICT.

The intervention is explained here in the thematic part of the website.

Electricity access in Mozambique, as with other areas of infrastructure delivery, is critically low. In the Current Path forecast, it is projected that 55.4% of Mozambique's population will have access to electricity by 2043, translating to 30.4 million people.

In the Infrastructure scenario, electricity access is projected to reach 64.1% by 2043, resulting in 35.2 million people having access to electricity, an increase of 4.8 million people compared to the Current Path forecast. The projection indicates that...
in the Infrastructure scenario, rural population electricity access will increase from a mere 8.7% in 2019 to 46.8% by 2043, 13.5 percentage points higher than in the Current Path forecast. For populations living in urban spaces, it is projected that in the Infrastructure scenario, electricity access will increase from 62% in 2019 to 83.4% by 2043.

Chart 48: Rural road access in CP and Infrastructure scenario, 2019–2043
% of rural population within 2 km of an all-weather road

Indicator 9.1.1 in the Sustainable Development Goals refers to the proportion of the rural population who live within 2 km of an all-season road and is captured in the Rural Access Index.

Measuring rural accessibility is a very important development indicator. The road network in Mozambique plays a vital role in the economy, given the nature of agriculture and the main modes of transportation. There is a strong link between investing in rural access roads and positive socio-economic impacts, such as improving rural income, reducing poverty, reducing maternal deaths, improving paediatric health and increased agricultural productivity. [5] Mozambique has a very low overall road network density, the 10th lowest in Africa, and this impacts the rural accessibility and poverty rates greatly. In 2019, 50% of Mozambique’s rural population had access to an all-weather road, compared to an average of 43% for low-income countries in Africa. The Infrastructure scenario will positively influence rural accessibility, and by 2043, it is projected that 58.4% of the rural population will have access to an all-weather road, compared to 56% for the Current Path forecast.

Even though Mozambique’s accessibility rates are above the average for low-income countries in Africa, a substantial portion of the road network is located in areas that are frequently subjected to floods and cyclones, and thus 30% of Mozambique’s road network is considered to be in a poor, very poor or impassable condition. [6]
Chart 49 displays the impact that the Infrastructure scenario will have on GDP per capita in Mozambique. By 2043, the GDP per capita is expected to increase to US$3,038 in the Infrastructure scenario, compared to US$2,897 in the Current Path forecast, an increase of only US$141 per capita. GDP per capita for Mozambique is expected to continue to lag behind its income peers, with a growing per capita income gap throughout the forecast horizon.
By 2043, poverty will drop marginally from 39.7% in the Current Path forecast to 38% in the Infrastructure scenario, lifting an additional 910 000 people out of extreme poverty. While poverty rates will drop from 68.4% in 2019 to 38% by 2043, the absolute number of people subjected to extreme poverty will remain unchanged at 20.9 million by 2043 (Chart 50).
Governance scenario

Chart 51: Gov effectiveness in CP and Governance scenario, 2019–2043
World Bank quality index score for government effectiveness

The Governance scenario represents a reasonable but ambitious improvement in accountability and reduces corruption, and hence improves the quality of service delivery by government.

The intervention is explained here in the thematic part of the website.

As defined by the World Bank, government effectiveness ‘captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies’.

Chart 51 displays the government effectiveness quality score for Mozambique compared to low-income countries in Africa in the Current Path forecast and in the Governance scenario. Mozambique scores higher than the average for low-income countries in Africa in both scenarios, and its score is projected to increase to 2.2 by 2043, compared to 2 in the Current Path forecast.
The Governance scenario has a very small impact on Mozambique's GDP per capita, as displayed in Chart 52. GDP per capita is expected to increase to US$2,954 in this scenario compared to US$2,897 in the Current Path forecast for 2043.
The Governance scenario will also have a small impact on alleviating poverty by 2043 and will reduce poverty by only 0.7 percentage points compared to the Current Path forecast by 2043. This scenario will lift an additional 380,000 people out of poverty by 2043. The poverty rate will remain very high at 39% and Mozambique will continue to be among the ten poorest countries in Africa throughout 2043.
Impact of scenarios on carbon emissions

Chart 54: Carbon emissions in CP and scenarios, 2019–2043

This section presents projections for carbon emissions in the Current Path for Mozambique and the 11 scenarios. Note that IFs uses carbon equivalents rather than CO₂ equivalents.

Mozambique’s carbon emissions are projected to increase most in the Agriculture scenario, emitting an additional 11.1 million tons of carbon by 2043 compared to 2019, and 1.4 million tons of carbon more than in the Current Path forecast for 2043. This increase is brought about by the increased agricultural production associated with this scenario.

In the Demographic scenario, emissions are forecast to be the lowest. In 2043, emissions in the Demographic scenario are likely to be 0.2 million metric tons less than emissions in the Current Path forecast for the same year. This is largely the result of the population being smaller by 2.7 million people in the Demographic scenario compared to the Current Path forecast.
Endnotes

1. OCHA, Mozambique: Humanitarian Response Dashboard, January–September 2021
2. The World Bank, Primary completion rate, total (% of relevant age group) - Mozambique, 2021
3. ISS Africa, Prospects and Challenges: Mozambique’s Growth and Human Development Outlook to 2040, 2017

Donors and sponsors

Reuse our work

- All visualizations, data, and text produced by African Futures are completely open access under the Creative Commons BY license. You have the permission to use, distribute, and reproduce these in any medium, provided the source and authors are credited.

- The data produced by third parties and made available by African Futures is subject to the license terms from the original third-party authors. We will always indicate the original source of the data in our documentation, so you should always check the license of any such third-party data before use and redistribution.

- All of our charts can be embedded in any site.

Cite this research

About the authors

Ms Alize le Roux joined the AFI in May 2021 as a senior researcher. Before joining the ISS, she worked as a principal geo-informatics researcher at the CSIR, supporting various local and national policy- and decision-makers with long-term planning support. Alize has 14 years of experience in spatial data analysis, disaster risk reduction and urban and regional modelling. She has a master's degree in geographical sciences from the University of Utrecht, specialising in multi-hazard risk assessments and spatial decision support systems.

About African Futures & Innovation

Scenarios and forecasting can help Africa identify and respond to opportunities and threats. The work of the African Futures & Innovation (AFI) program at the Institute for Security Studies aims to understand and address a widening gap between indices of wellbeing in Africa and elsewhere in the world. The AFI helps stakeholders understand likely future developments. Research findings and their policy implications are widely disseminated, often in collaboration with in-country partners. Forecasting tools inspire debate and provide insights into possible trajectories that inform planning, prioritisation and effective resource allocation. Africa's future depends on today's choices and actions by governments and their non-governmental and international partners. The AFI provides empirical data that informs short- and medium-term decisions with long-term implications. The AFI enhances Africa's capacity to prepare for and respond to future challenges. The program is headed by Dr Jakkie Cilliers.