Mozambique

Mozambique: Current Path

Alize le Roux

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Mozambique: Current Path

Mozambique: Current Path forecast

Chart 1: Political map of Mozambique

This page provides an overview of the key characteristics of Mozambique along its likely (or Current Path) development trajectory. The Current Path forecast from the International Futures forecasting (IFs) platform is a dynamic scenario that imitates the continuation of current policies and environmental conditions. The Current Path is therefore in congruence with historical patterns and produces a series of dynamic forecasts endogenised in relationships across crucial global systems. We use 2019 as a standard reference year and the forecasts generally extend to 2043 to coincide with the end of the third ten-year implementation plan of the African Union's Agenda 2063 long-term development vision.

Mozambique is classified as a low-income country according to the World Bank's income classification and is located in the

subtropical climate of the east coast of southern Africa. The country borders Malawi, Tanzania, Zambia, Zimbabwe, South Africa and Eswatini (Chart 1) and is a member of the Southern African Development Community (SADC).

Mozambique has significantly improved on many of its key development outcomes over the past two decades. [1] Since the beginning of the century, agricultural production has more than doubled, infant mortality has halved, the children stunting rate has decreased by 10% and life expectancy has increased by nearly 11 years.

However, the country still struggles to reach its human and social development goals. While the country has seen steady economic growth, this has not translated to significantly better service accessibility. Mozambique has the highest incidences of infant and child mortality as well as the highest poverty rates among its neighbours.

The location of Mozambique next to the warm Indian ocean also subjects the country to intense weather-related hazards, such as cyclones and cyclic droughts. Flooding is a regular occurrence due to the draining of nine international river basins throughout its 2 500 km coastline. These international rivers contribute 50% of Mozambique's total volume of water runoff. [2] Since 2000, the country has been subjected to 12 devastating tropical cyclones, nine severe droughts and 20 flooding disasters that have affected more than 19 million people. [3] This abnormally high exposure to weather-related hazards, combined with 39% of the population living below 100 m elevation, [4] makes this one of the most vulnerable and susceptible countries in the world to natural disasters.

Mozambique faces vast development challenges in the years ahead: key among these are chronic under development, mass migration and displacement, and the ongoing insurgency within its northern region. The country does however boast great potential with its large gas reserves and natural resource endowments. This will be unpacked in the subsequent sections.
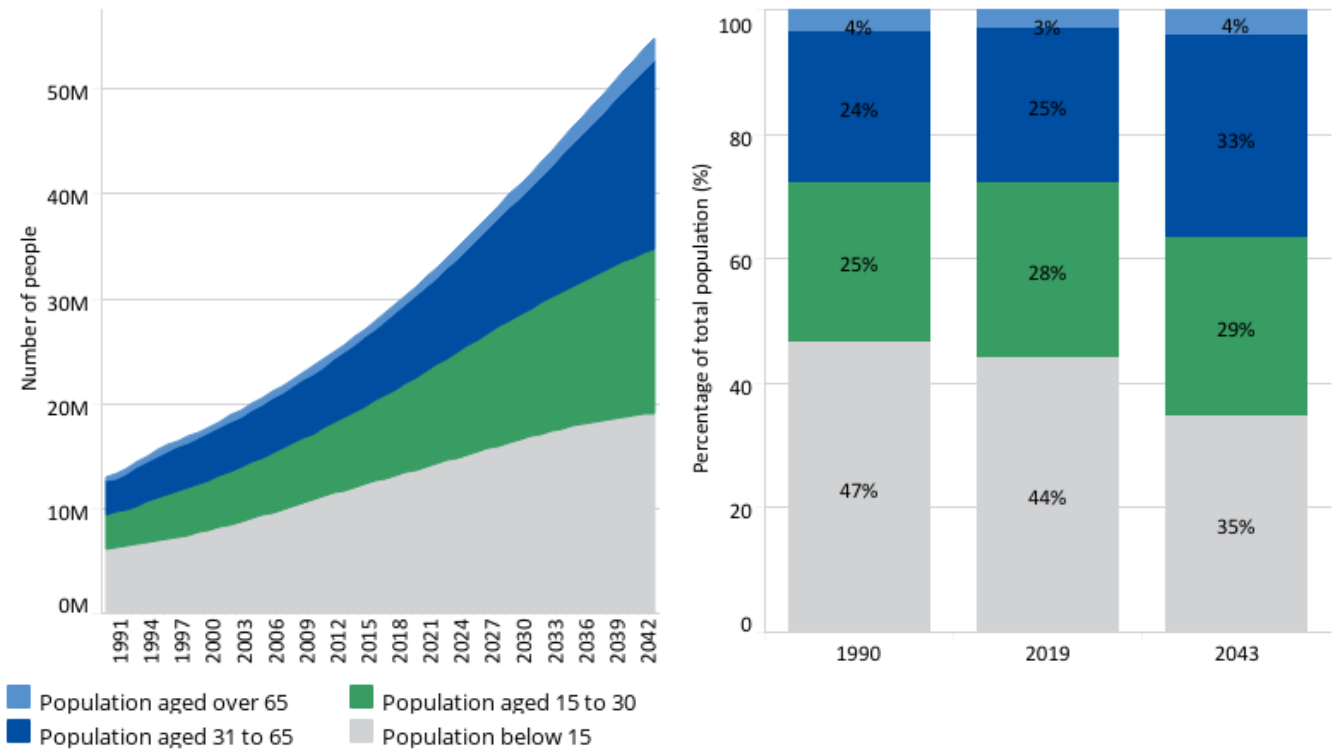
Chart 2: Population structure in CP, 1990–2043
By cohort and % of population

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Legend:
- Population aged over 65
- Population aged 31 to 65
- Population aged 15 to 30
- Population below 15

Source: IFs 7.63 initialising from UN Population Division Population Prospects estimate and World Development Indicators population data
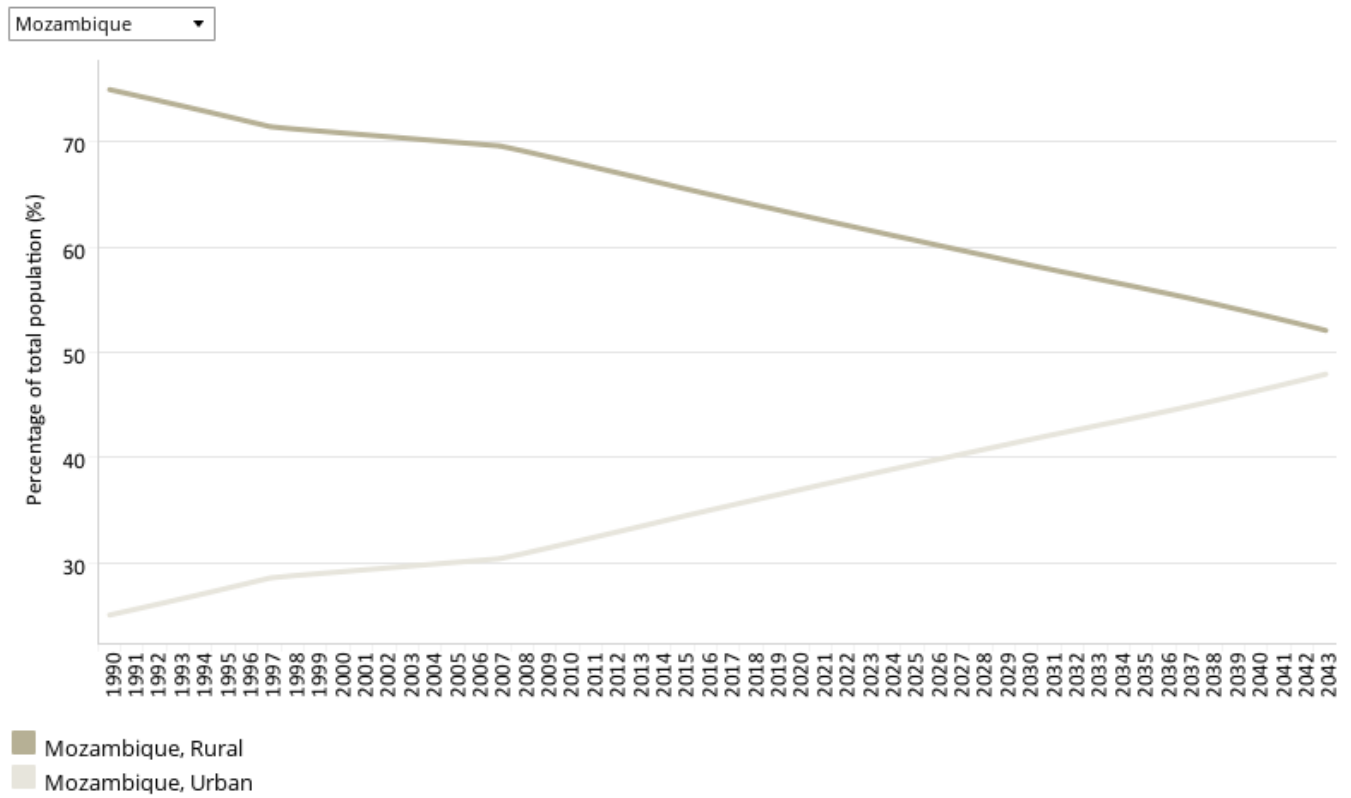
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Mozambique's population of 30.3 million in 2019 makes it the fifth largest country among low-income countries in Africa. In the Current Path forecast, this figure is expected to reach 54.8 million people by 2043 (Chart 2)—growth of 24.5 million people in the next 24 years. The country has a very large youthful population with 44.1% of its population below the age of 15 years. This accounted for 13.4 million children in 2019.

The population growth rate is expected to gradually decrease from 2.8% in 2019, but the total fertility rate will remain above the 2.1 births per woman replacement level throughout the next two decades. While the median age is expected to increase from 17.5 years in 2019 to 22.4 by 2043, the large youth bulge will persist throughout, resulting in 19 million children (34.7% of the population) by 2043. Such a large youthful population in the absence of structured economic growth, combined with the current instability in the northern provinces and endemic poverty, can result in ongoing instability and contribute to further social and political conflict.

While the labour force is forecast to increase from 13 million people in 2019 to 28 million by 2043, the country is not expected to reap the benefits of a demographic dividend until closer to the middle of the century. Declining household sizes coupled with the country's young and growing population will undoubtedly place significant pressure on land use and natural resource management. This rapid growth will test the government's ability to provide critical basic infrastructure and human services in the decades to come. [5]

## Chart 3: Urban and rural population in CP, 1990–2043
% of population

Mozambique ▼

Mozambique, Rural
Mozambique, Urban

Source: IFs 7.63 initialising from UN World Urbanization Prospects estimate

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In 2019, there were 11 million people (36.4 % of the population) living in urban areas throughout Mozambique. This is 5.4 percentage points higher than the average for low-income Africa, placing it fourth among its peers. The 19.3 million people, 63.6% of the population, who live in underserved rural areas are largely dependent on rain-fed subsistence agriculture. Urbanisation is set to continue at a rapid rate and it is forecast that 47.9% of the population, 26.3 million people, will live in urban settlements by 2043 (Chart 3). The 15 million additional urban dwellers will place significant strain on resources, requiring authorities to plan for and provide enough safe land for the expansion of cities.

Rural communities in Mozambique struggle with endemic poverty, lack of access to basic services, poor infrastructure, isolation and frequent exposure to severe weather-related hazards. [6] Cities are thus perceived as safe and viable migration options as many people seek access to a higher quality of living. The expected growth in city size will have to be managed and planned for in a sustainable manner to avoid simultaneous growth in informal settlements.

Chart 4: Population density map for 2019
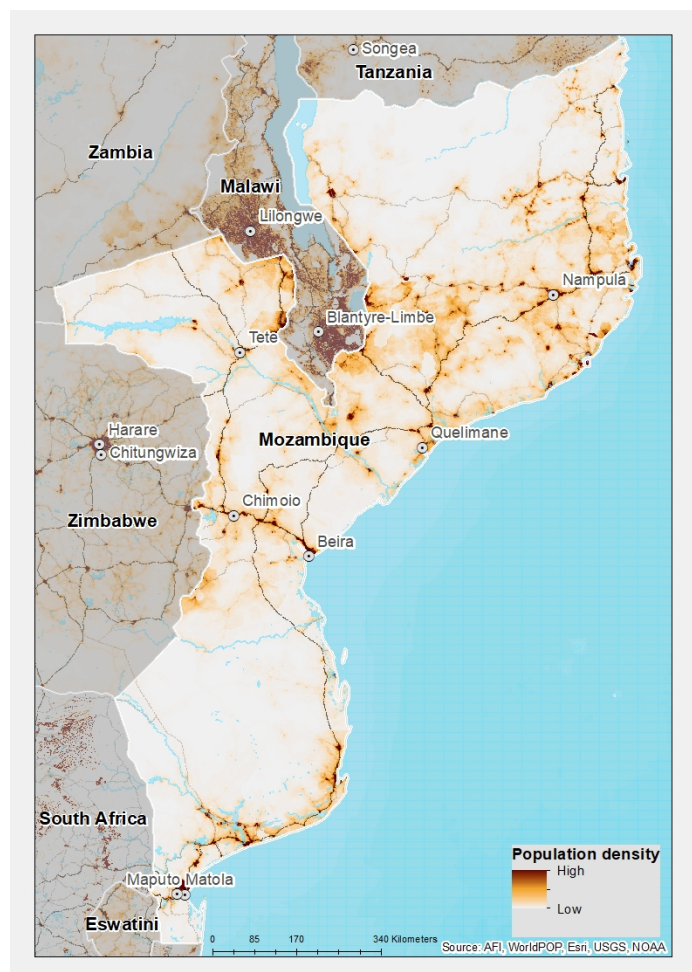
Mozambique's population distribution reflects a history of dependency on subsistence farming, as the majority of the rural population are concentrated on rich soil deposits from the various river basins draining into the Indian ocean—areas good for agriculture. The country's population is settled on approximately 800 000 km^2 of land translating to a density of 0.39 people per hectare.

Noticeable rural clusters are observed towards the south following a northerly direction along the coast, the central area next to accessible inland routes and perennial rivers, and the north central lowlands. The main urban areas of Maputo, Matola, Beira, Nampula, Chimoio, Nacala, Quelimane and Tete are connected by a sparse road network that is frequently affected by floods and tropical cyclones.
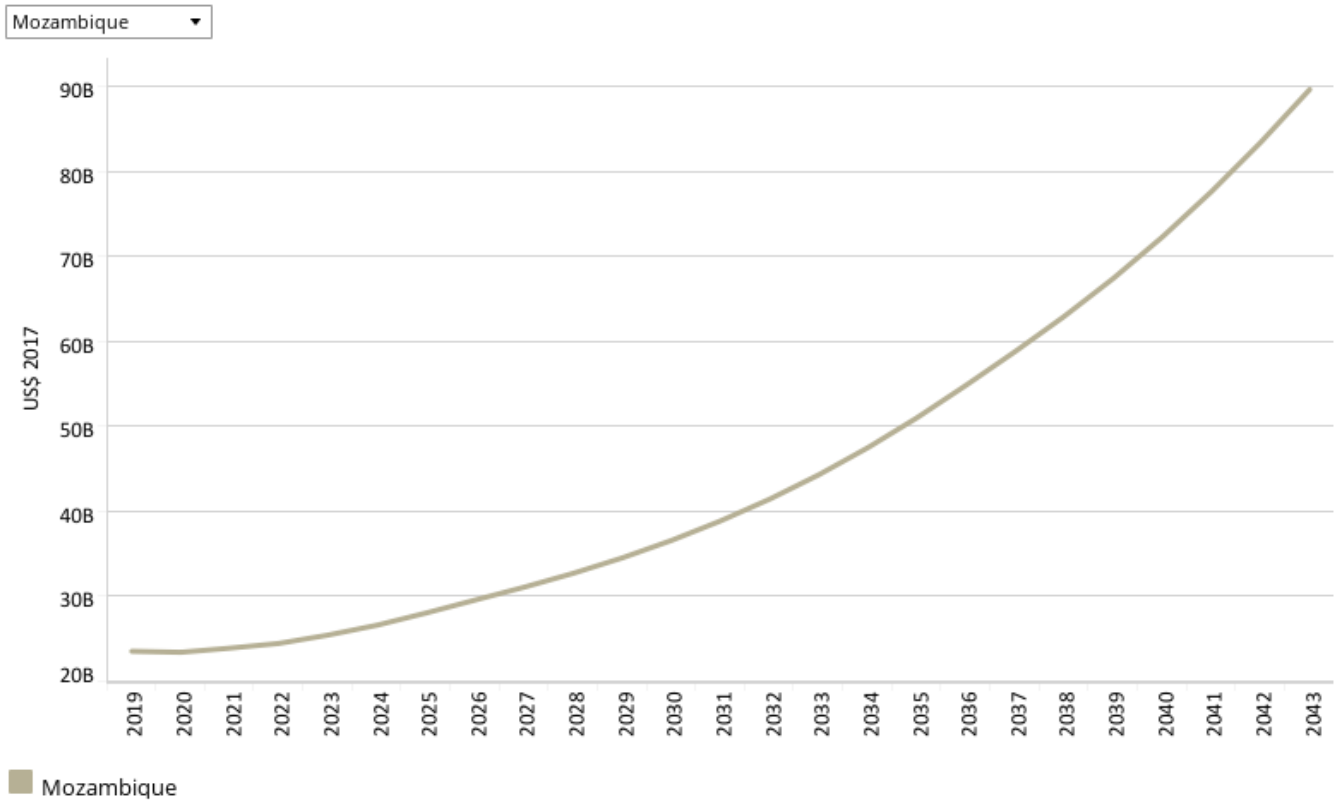
In the Current Path forecast, population density is likely to increase to 0.7 people per hectare by 2043, with 9.3 million more people living in dense clusters of rural spaces.

Chart 5: GDP in CP, 1990–2043
Market exchange rates

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Mozambique

Source: IFs 7.63 initialising from International Monetary Fund World Economic Outlook database
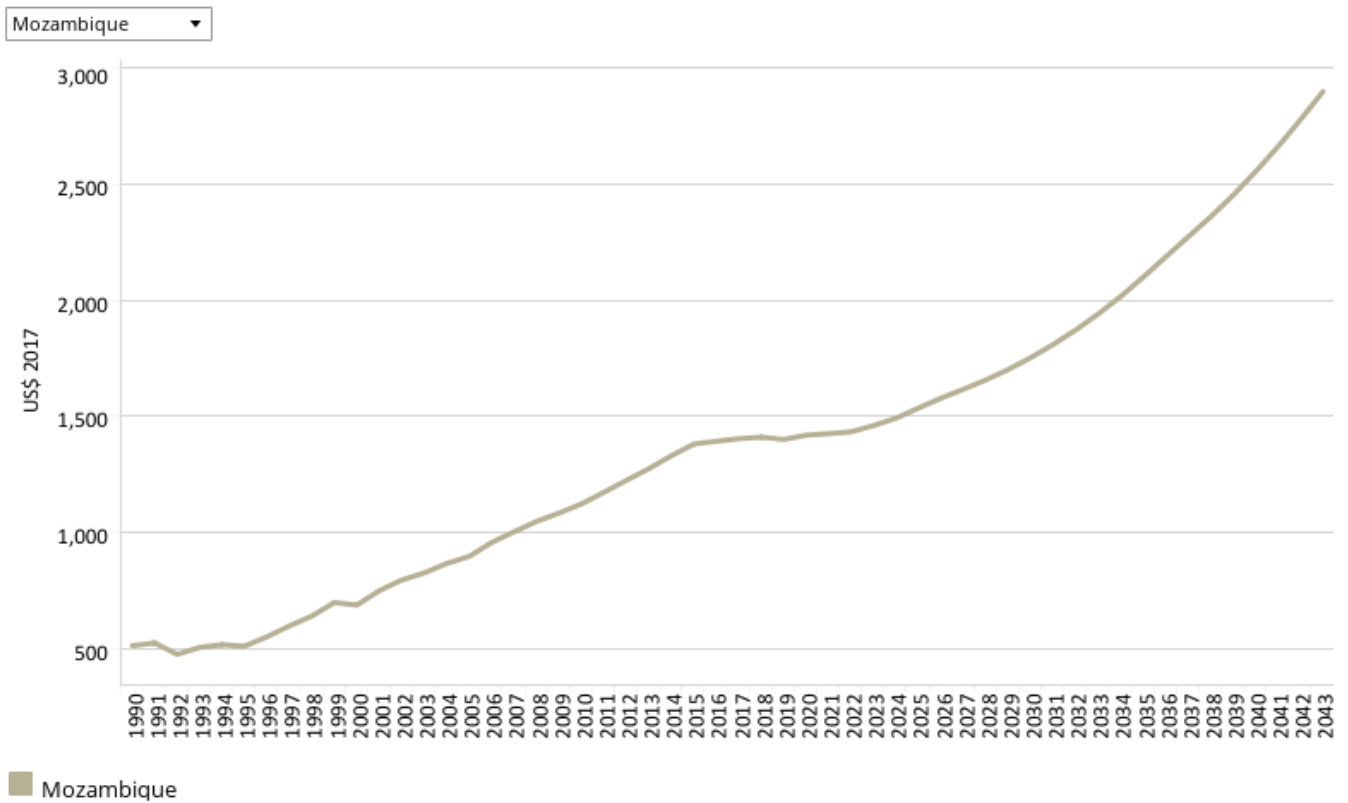
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Mozambique averaged a GDP growth rate of 7% per annum between 1995 and 2015. [7] This growth measured two percentage points higher than the average for low-income African countries and was the highest among the region in this time period. The growth was stimulated by the recovery from the civil war, renewed resource exploitation, aluminium smelting, electricity production expansions and significant foreign aid inflows. The result was Mozambique's GDP growing from US$3.7 billion in 1990 to US$23.5 billion in 2019 (Chart 5).

However, this growth did not benefit the vast majority of citizens and the country continues to battle with very low levels of human development, ranking third lowest in the world in the UN's Human Development Index. [8] The COVID-19 pandemic adversely impacted economic activity with negative growth rates in 2020. This retraction came on the back of the country attempting to recover from its 'hidden debt' scandal exposed in 2016.

In the Current Path forecast, the growth rates are expected to recover and GDP is forecast to grow substantially to US$89.6 billion by 2043, with growth rates above 7% from 2033 onwards. This sustained growth rate will keep Mozambique's GDP in fifth position among its low-income African peers throughout the forecast horizon.

Chart 6: GDP per capita in CP, 1990–2043
Purchasing power parity

Mozambique ▾

Mozambique

Source: IFs 7.63 initialising from UN Population Division World Population Prospects and World Development Indicators data
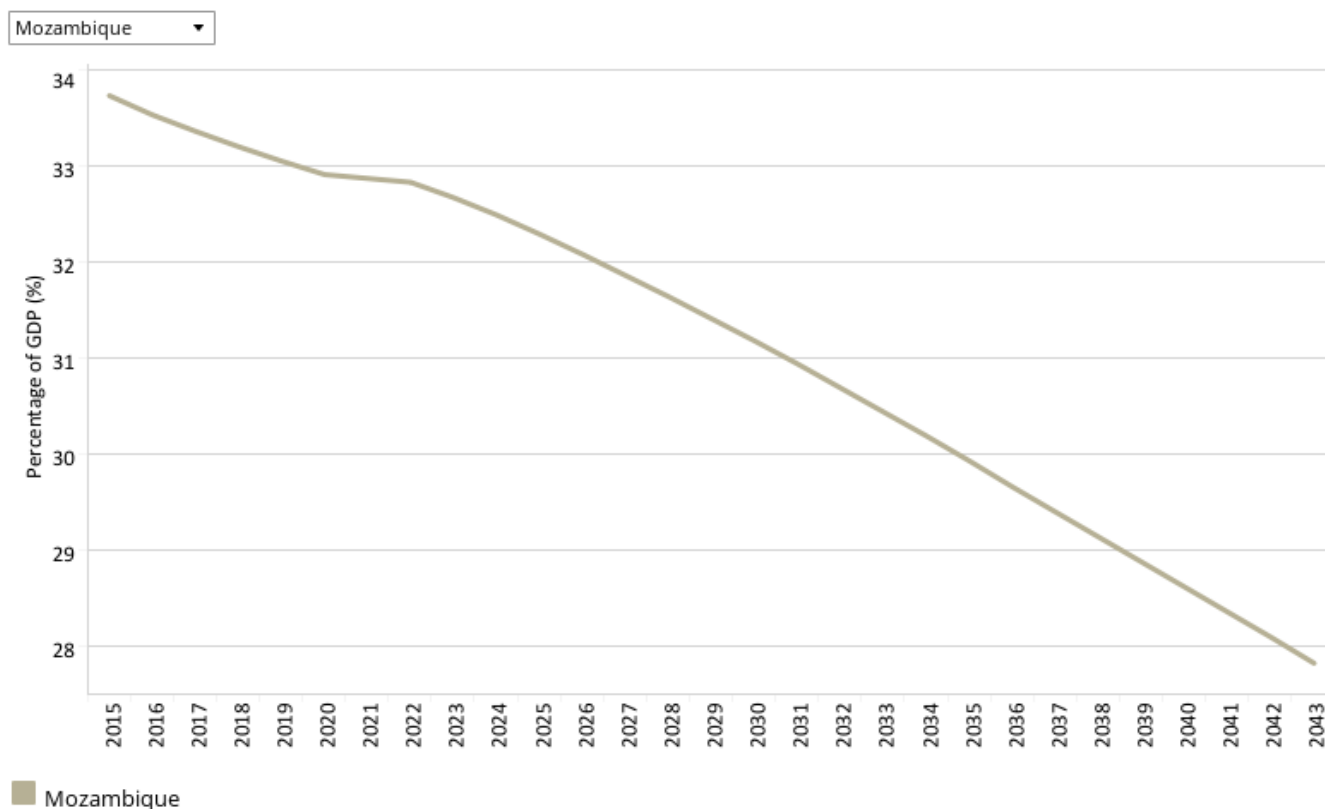
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Although many of the charts in the sectoral scenarios also include GDP per capita, this overview is an essential point of departure for interpreting the general economic outlook of Mozambique.

In 1985, Mozambique ranked 21st in GDP per capita among its 23 low-income African peers. The country substantially improved this position, ranking 16th in 2019 with a value of US$1 402, but this is still US$258 below the average for its income peers. The gap has narrowed from US$617 in 1990 but remains a persistent problem.

In the Current Path forecast, the country is expected to rank 14th among low-income countries in Africa by 2043 with a GDP per capita of US$2 897 (Chart 6). Although the forecast for economic growth is optimistic, it will not keep up with projected population growth and the gap between Mozambique and the average for low-income Africa will grow to US$893 by 2043.

Chart 7: Informal sector value in CP, 2015–2043
% of GDP

Mozambique ▼

Mozambique

Source: IFs 7.63 initialising from UN Economic Commission for Europe [2008]; Elgin and Oztunali [2012]; Schneider and Enste [2012]
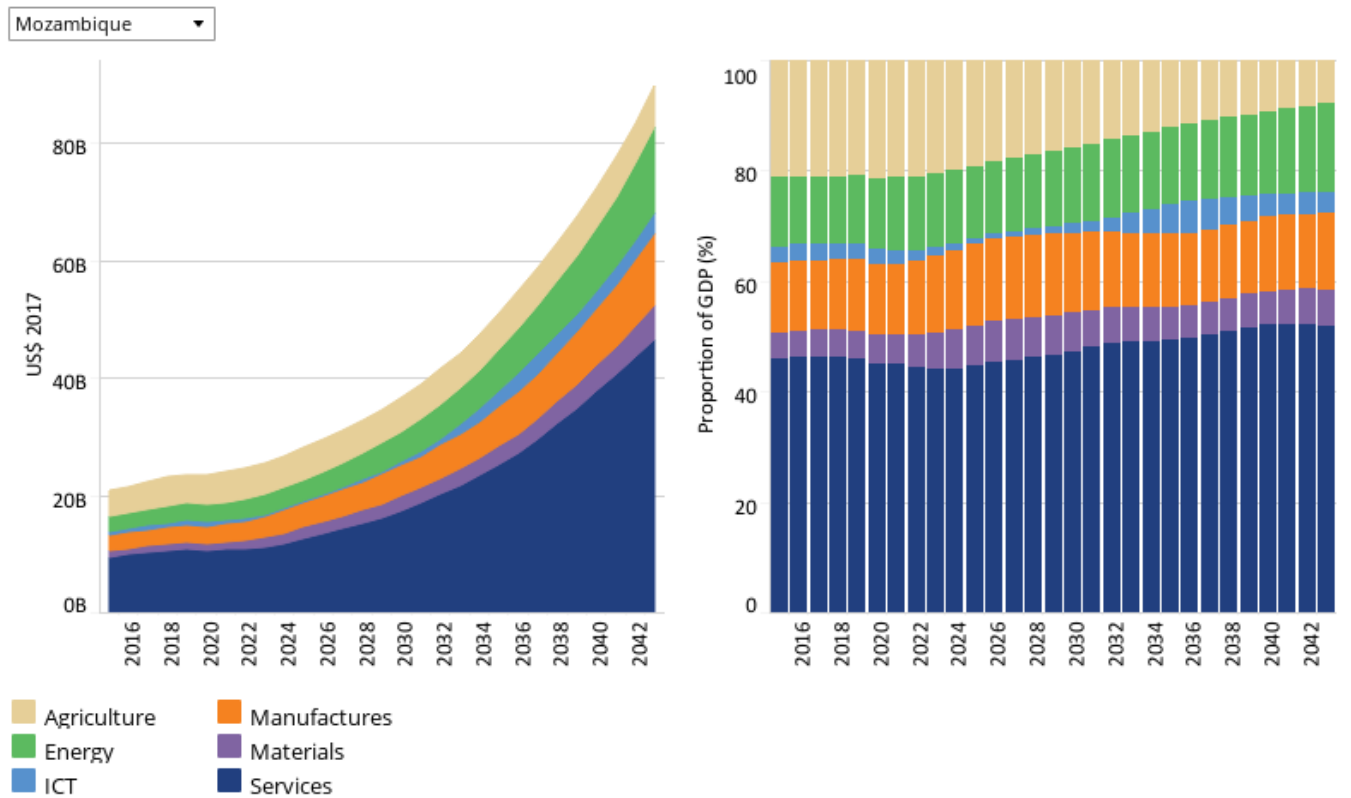
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Mozambique, as with other low-income developing countries, has a very large informal sector. In 2019, the size of the informal economy was estimated at 33.1% of GDP, amounting to a value of US$7.2 billion. This is 3 percentage points higher than the average for low-income economies in Africa. In 2019, 65% of Mozambique's labour force worked in the informal economy, accounting for 3.7 million people, most of whom worked in the agricultural sector.

In Current Path forecast, this value is likely to increase to 10 million informal workers by 2043. It is also forecast that the value of the informal sector as a per cent of GDP will decline to 27.8%, amounting to a value of US$22.8 billion, nearly 2 percentage points higher than its income peers.

Transitioning to a more formal economy is a priority for the government. This could go a long way in raising the quality of living through minimum wages, offering maternity protection and other social security measures. However, a study released by the World Bank Group in 2021 suggests that only high-performing informal firms with a high resemblance to the formal sector would benefit from formalisation, while others would benefit more from a diversified approach ranging from social protection policies and improvement of skills to other initiatives such as business practice training. [9]

Chart 8: Value added by sector in CP, 2015–2043
Billions US$ 2017 and % of GDP

Mozambique

Legend:
- Agriculture
- Energy
- ICT
- Manufactures
- Materials
- Services

Source: IFs 7.63 initialising from International Monetary Fund World Economic Outlook database

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The IFs platform uses data from the Global Trade and Analysis Project (GTAP) to classify economic activity into six sectors: agriculture, energy, materials (including mining), manufactures, services and information and communications technology (ICT). Most other sources use a threefold distinction between only agriculture, industry and services with the result that data may differ.

Chart 8A displays the contribution of each sector as a per cent of GDP and Chart 8B displays the value-added contribution per sector in US$ for 2017.

At 46.1% in 2019 (US$11 billion), the service sector (typically low value-added services) makes up the largest percentage of GDP contribution by sector. The service sector is expected to remain the dominant contributor, growing to 51.8% (valued at US$46 billion) by 2043. This continued growth is in line with patterns observed through much of Africa's low-income economies.

The agricultural sector (mostly subsistence agriculture) is currently the second largest contributor to the economy at 20.9% (valued at US$4.9 billion) in 2019 and is expected to decline to 7.8% (valued at US$7 billion) by 2043. This shift will signify the ongoing structural transformation of Mozambique's economy. The manufacturing sector is expected to grow by 1 percentage point from 12.8% in 2019 to 13.8% by 2043, increasing the GDP contribution of this sector from US$3 billion to US$12 billion. The energy sector is likely to grow from 12.4% in 2019 to 16.1% by 2043.

Chart 9: Agriculture production/demand in CP, 1990–2043
Crops million tons

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■ Mozambique, Demand
■ Mozambique, Production
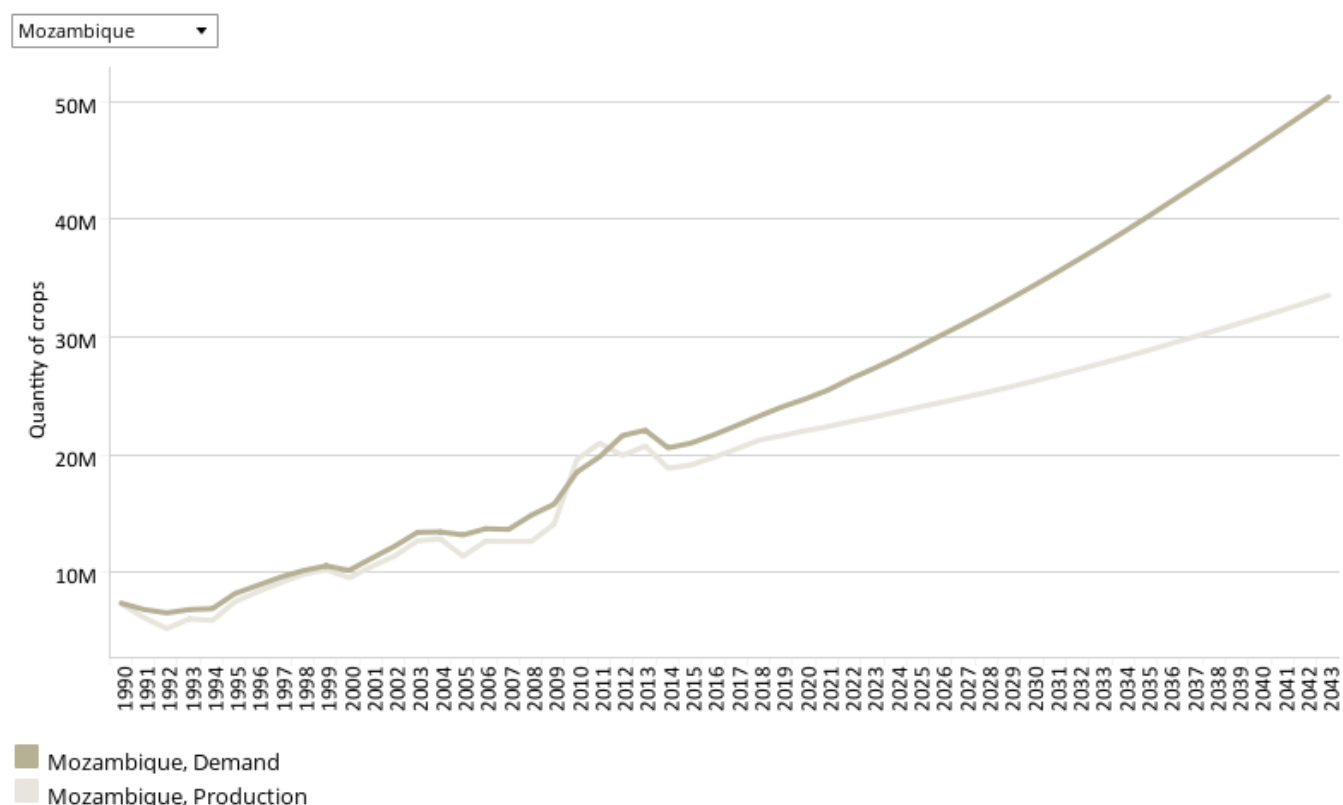
Source: IFs 7.63 initialising from Food and Agriculture Organization Food Balance Sheets

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The data on agricultural production and demand in the IFs forecasting platform initialises from data provided on food balances by the Food and Agriculture Organization (FAO). IFs contains data on numerous types of agriculture but aggregates its forecast into crops, meat and fish, presented in million metric tons. Chart 9 shows agricultural production and demand as a total of all three categories.

Mozambique's agricultural sector is dominated by subsistence rain-fed agriculture that is predominantly practised on smallholdings. At the end of the 1980s, agriculture contributed nearly half of the country's GDP. Despite its gradual decline over the past three decades, the sector remains a vital source of income and subsistence to communities. More than half of Mozambique's labour force is directly employed in the agricultural sector, with a fifth of GDP attributable to the sector.

Mozambique has great agricultural potential but the sector is plagued by low labour productivity and recurring droughts and flooding. In 2019, the country produced 21.6 million metric tons of agricultural produce, 94% of which were crops. Agricultural losses remain very high and an estimated 10% is lost due to poor processing and insufficient transport and storage infrastructure. Food security remains a great concern for the country.

The demand for agricultural produce exceeded production by 2.4 million metric tons in 2019. This production and demand gap is likely to persist in the Current Path forecast. By 2043, agricultural production is forecast to be 33.5 million metric tons and demand would exceed 50 million metric tons, translating to a 16.9-million-   metric-ton shortfall. This paints a picture of growing food insecurity amidst a rapidly expanding population and is a similar pattern observed in other low-income countries across Africa.
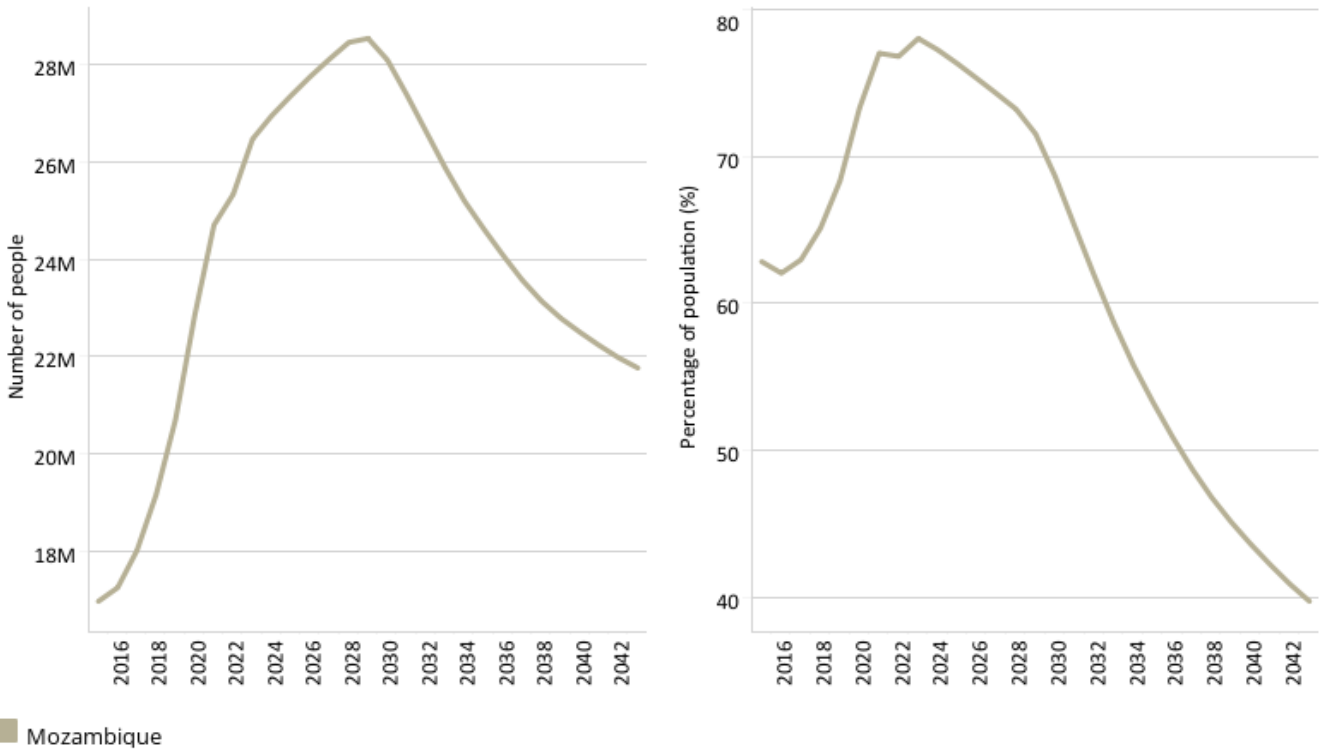
Poverty: Current Path

Chart 10: Poverty in CP, 2015–2043
Millions of people and % of total population

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Mozambique

Source: IFs 7.63 initialising from UN Population Division Population Prospects estimate, World Development Indicators population data and PovcalNet World Bank data.

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There are numerous methodologies and approaches to defining poverty. We measure income poverty and use GDP per capita as a proxy. In 2015, the World Bank adopted the measure of US$1.90 per person a day (in 2011 international prices), also used to measure progress towards the achievement of Sustainable Development Goal 1 of eradicating extreme poverty. To account for extreme poverty in richer countries occurring at slightly higher levels of income than in poor countries, the World Bank introduced three additional poverty lines in 2017:

- US$3.20 for lower middle-income countries

- US$5.50 for upper middle-income countries

- US$22.70 for high-income countries.

The sustained economic growth experienced in the country over the past two decades has not kept up with population growth and the vast majority of citizens have not benefited from it. Consequently, Mozambique has an extremely high poverty burden and the stunting rate among its population is among the worst performing globally. In 2019, 20.7 million people (68.4%) lived below the extreme poverty line of US$1.90 per person per day. This is 20.6 percentage points higher than the average for low-income countries in Africa (Chart 10B), the fifth highest prevalence of poverty in Africa.

Even with the significant boost to economic growth expected from natural gas production, Mozambique's poor population will continue to grow as the revenue from natural resource extraction is unlikely to translate into improved development outcomes. While it is expected that extreme poverty rates will decrease to 39.7% by 2043, the number of poor people will still grow to 21.8 million (Chart 10A). This is largely due to rapid population growth and continued lack of access to basic services experienced in the country. [10]

In the Current Path forecast, poverty rates in Mozambique will remain above those of low-income economies in Africa and be 12.7 percentage points higher than the average for its low-income peers by 2043. Social welfare transfers from the government (government to household transfers) equated to only 0.7% of GDP in 2019 and are expected to increase to 2.6% of GDP by 2043.

Chart 11: Energy production by type in CP, 1990–2043
Barrels of oil equivalent and % of energy production

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Legend:
- Coal
- Gas
- Hydro
- Nuclear
- Oil
- Other renewa...
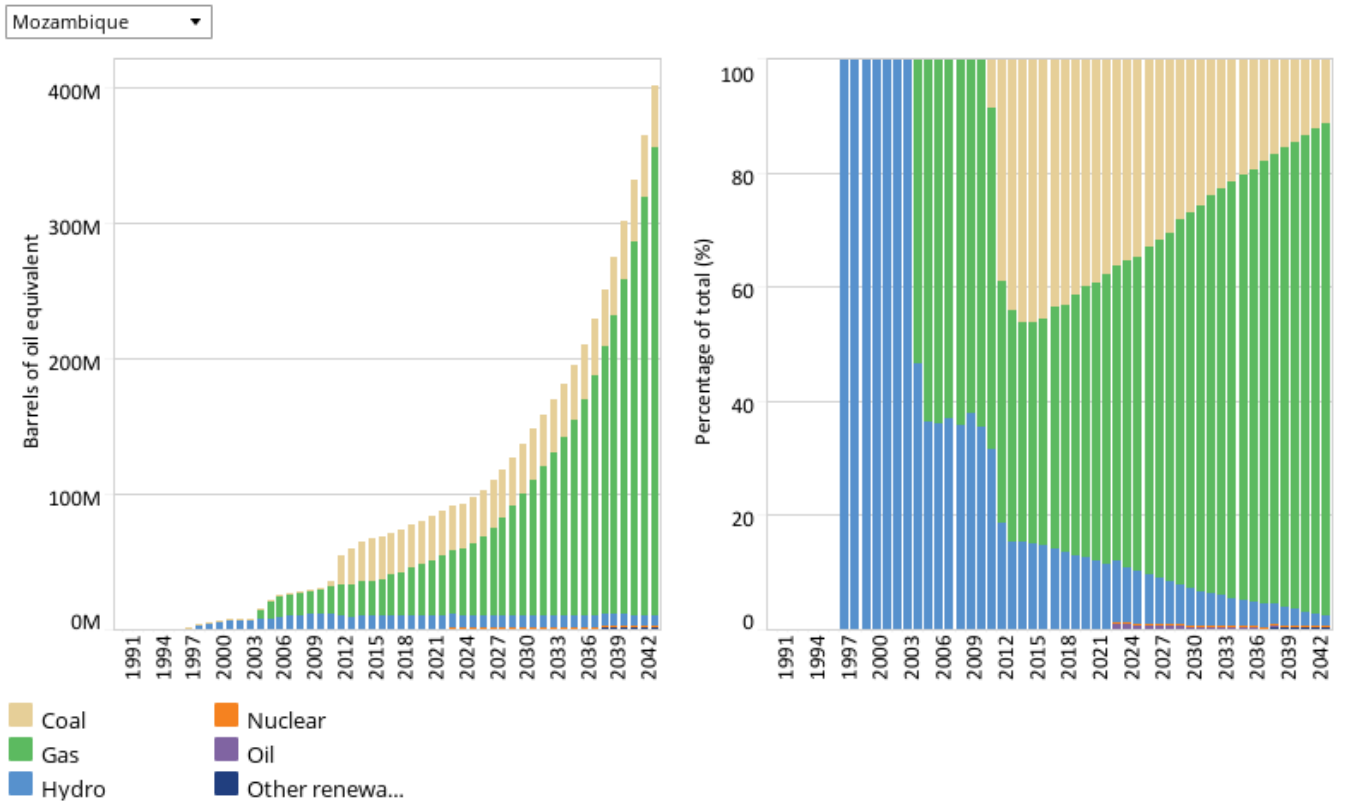
Source: IFs 7.63 initialising from World Energy Outlook data

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The IFs platform forecasts six types of energy, namely oil, gas, coal, hydro, nuclear and other renewables. To allow comparisons between different types of energy, the data is converted into billion barrels of oil equivalent (BBOE). The energy contained in a barrel of oil is approximately 5.8 million British thermal units (MBTUs) or 1 700 kilowatt-hours (kWh) of energy.

Mozambique has the second largest energy resources in Africa. Total energy resources are estimated at 167 billion barrels of oil equivalent. Coal resources are estimated at 106 billion barrels of oil equivalent while gas and oil are estimated at 37 and 16 billion barrels of oil equivalent respectively.

Mozambique had a total energy production of 77 million barrels of oil equivalent in 2019. The energy mix of the country is heavily reliant on fossil fuels, with 41.6% reliance on coal and 45.5% reliance on gas, followed by hydropower at 13% (Chart 11). The country is the fifth largest producer of hydropower in Africa, but despite the country's electricity generation potential, less than 28% of the population had access to electricity in 2019.

If gas production develops in line with expectations after the recently discovered reserves of liquefied natural gas (LNG) in the northern off-shore area, the energy sector is likely to grow significantly. In the Current Path forecast, it is expected that by 2043 the country will have a total energy production exceeding 400 million barrels of oil equivalent. The energy mix will be heavily dependent on gas, constituting 86.1% thereof, the equivalent of 350 million barrels of oil, by 2043.

Chart 12: Carbon emissions in CP, 1990–2043
Million tons of carbon (note, not CO_2 equivalent)

Mozambique
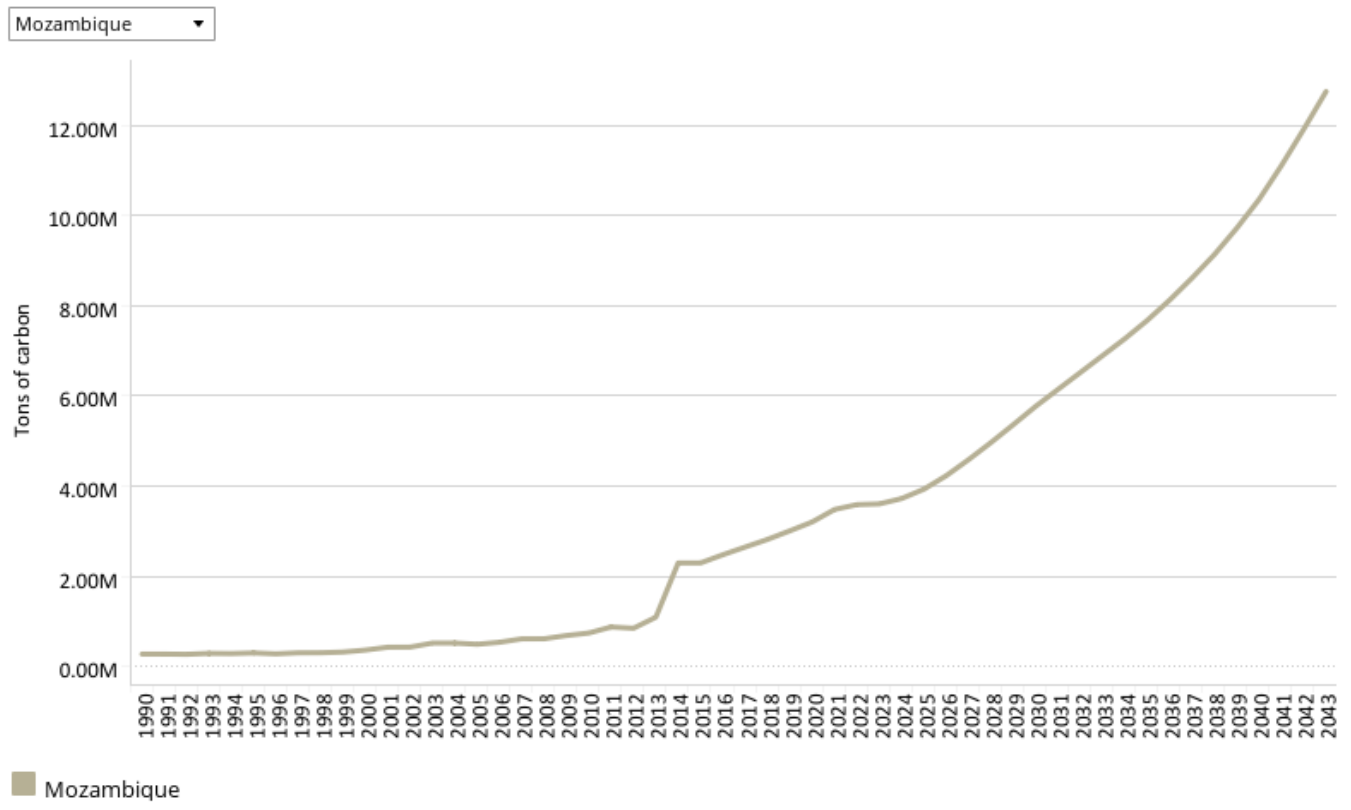
Source: IFs 7.63 initialising from Carbon Dioxide Information Analysis Center data

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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, IFs uses carbon. Many other sites and calculations use CO_2 equivalent.

Mozambique is a low carbon emitter with carbon emissions of 3 million tons in 2019. Its emissions place it in 17th position in Africa and 103rd in the world, although among low-income countries in Africa it ranked second in 2019. In the Current Path forecast, carbon emissions are likely to increase to 13 million tons by 2043, moving it up by 31 positions globally. Mozambique remains a low emitter of carbon despite its heavy reliance on gas.

Endnotes

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2. AfCAP, Climate Adaptation: Risk Management and Resilience Optimisation for Vulnerable Road Access in Africa, February 2019

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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.

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