



Morocco

Scenario Comparisons

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Scenario Comparisons

Chart 29: GDP per capita in Current Path and scenarios, 2019–2043

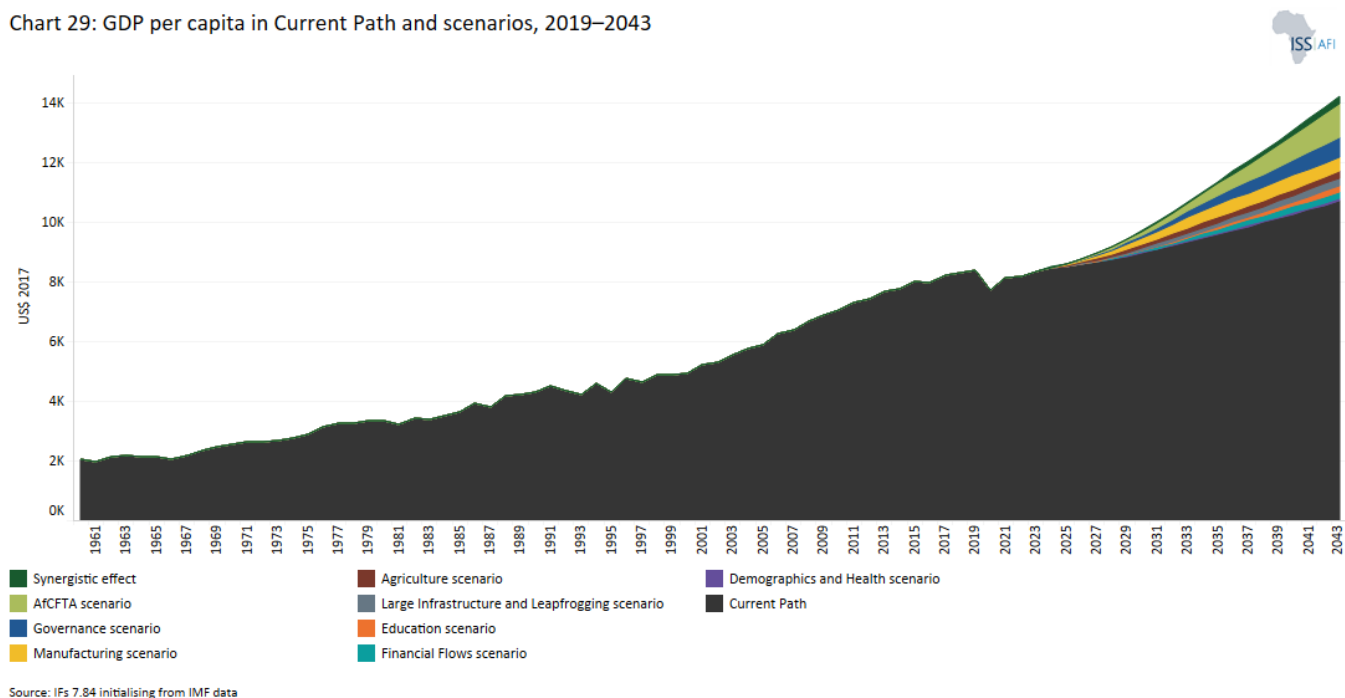


Chart 29 presents a stacked area graph on the contribution of each scenario to GDP per capita. The cumulative impact of better education, health, infrastructure, leapfrogging, etc., means an additional benefit in the integrated IFs forecasting platform that we refer to as the synergistic effect.

In 2019 GDP per capita was US\$8 368, and the Current Path forecast for 2043 is US\$10 718. Among the sectoral interventions, the AfCFTA scenario will have the greatest positive impact on the GDP per capita, taking it to US\$11 859. The second and third largest impact on GDP per capita will be achieved by the Governance and the Manufacturing scenarios, followed by the Large Infrastructure and Leapfrogging scenario. In these scenarios, GDP per capita will increase to US\$11 369, US\$11 205 and US\$10 965, respectively. Given its relatively mature population structure and increased expenditure on non-communicable diseases that follow the Demographic and Health scenario will have the smallest effect on GDP per capita by 2043.

In the Combined Agenda 2063 scenario, Morocco's GDP per capita in 2043 is expected to be US\$13 996 — 33%, or US\$3 495, higher than the Current Path forecast. The average GDP per capita of its low-middle-income peer group in 2043 will be significantly lower at US\$8 904.

Chart 30: Poverty in Current Path and scenarios, 2019–2043

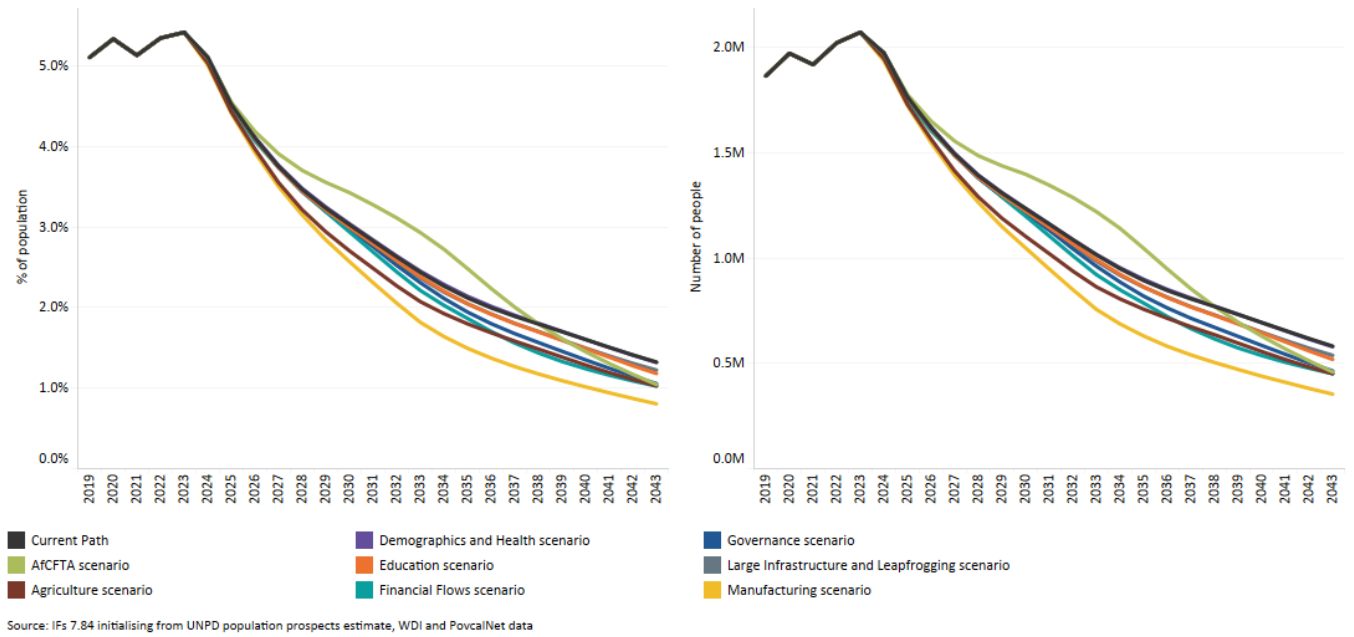


Chart 30 presents the impact of each scenario on extreme poverty by 2043. The user can select the number of extremely poor people or % of the population.

Morocco has already achieved the SDG goal of eliminating extreme poverty. In 2019, 0.6% of the population lived below US\$1.90, equivalent to 211 000, and 5.1% (1.865 million) using the US\$3.20 income poverty line. By 2043 the Current Path forecast is that these numbers will decline to 0.08% (using US\$1.90) and 1.3% (using US\$3.20), which translates to 34 000 and 582 000 people. In the Combined scenario, by 2043, 0.2% of Moroccans, or 79 000 people, will live in extreme poverty (using US\$3.20). The 2043 numbers using US\$1.90 are 2 000 people (or 0.005% of the population).

Because of rapid progress in the Current Path, the impact of the Demographic and Health scenario on extreme poverty is minimal.

The scenario with the largest impact on extreme poverty is the Manufacturing scenario, followed by Agriculture.

Chart 31: GDP (MER) in Current Path and Combined Agenda 2063 scenario, 2019–2043

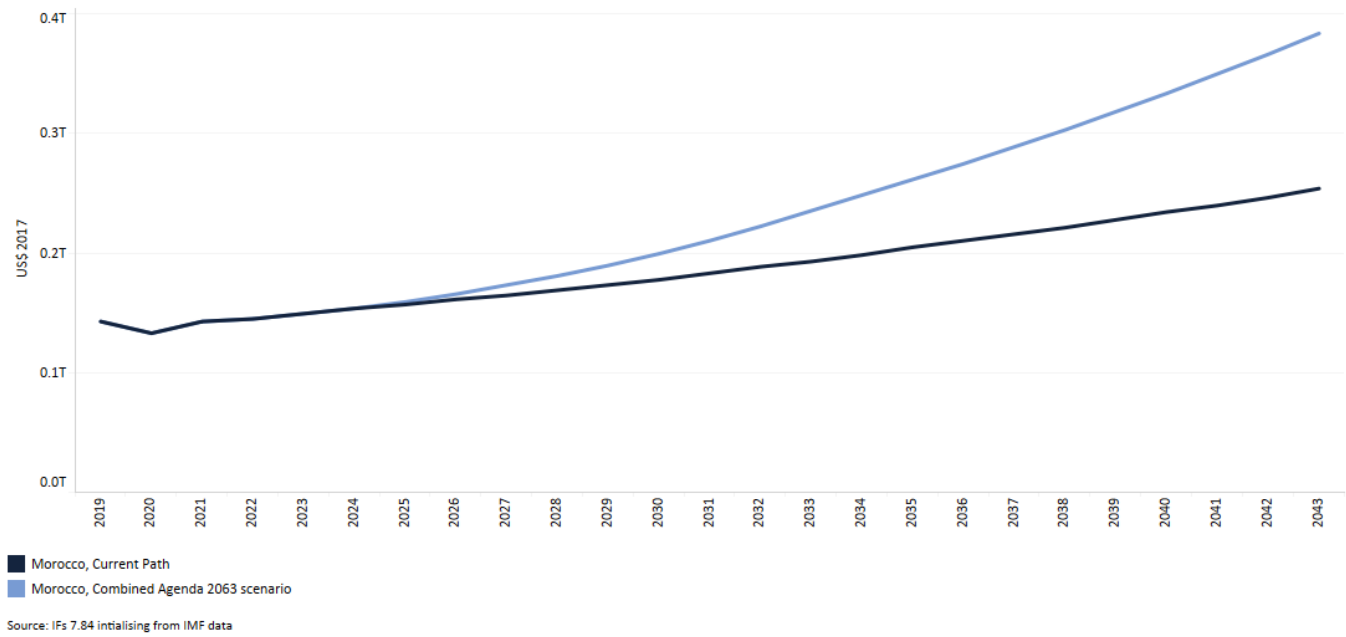


Chart 31 compares the size of the economy in the Current Path with the Combined Agenda 2063 scenario at market exchange rates (MER).

The Combined Agenda 2063 scenario consists of the combination of all eight sectoral scenarios, namely Demographics and Health, Education, Infrastructure/Leapfrogging, Agriculture, Manufacturing and Leapfrogging, AfCFTA, Financial Flows and Governance.

In 2019, Morocco’s GDP was US\$142.4 billion. On the Current Path, Morocco’s GDP will grow to US\$253.4 billion by 2043. In the Combined Agenda 2063 scenario, it will be US\$384 billion, with the largest contribution coming from the AfCFTA scenario, followed by the Governance scenario. In other words, in the Combined Agenda 2063 scenario, Morocco’s economy will be 2.7 times its 2019 size in 2043 and more than 51% larger than the Current Path forecast for that year. In 2019, Morocco’s economy was the 5th largest in Africa. In the Combined scenario, it would be Africa’s 6th largest economy by 2043 instead of the 11th largest in the Current Path forecast.

Chart 32: Value added by sector in Current Path and Combined Agenda 2063 scenario, 2019-2043

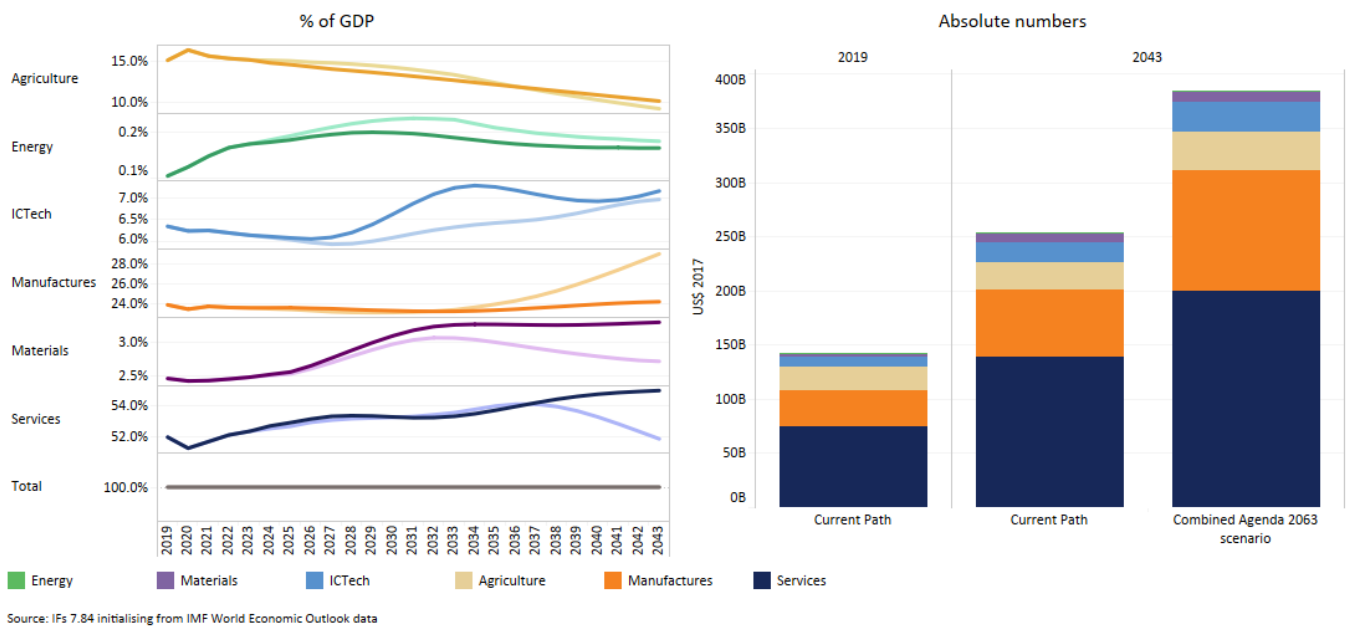


Chart 32 presents the change in the economy's structure, comparing the Current Path forecast with the Combined Agenda 2063 scenario from 2019 to 2043.

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

In the Combined Agenda 2063 scenario, the manufacturing sector will experience a substantial increase in its contribution to Morocco's GDP compared to the Current Path, being 4.8 percentage points larger in 2043. This will translate into an increase in GDP of US\$50 billion attributable only to the manufacturing sector above the Current Path forecast for 2043. The increase confirms the decision, by government, to pursue a manufacturing growth path given its geographic position in respect to the European Union and supply of cheaper labour able to cost compete with expensive labour in the Union. Since the services sector is much larger than any other, it will contribute an additional (i.e. above the Current Path forecast) US\$60 billion to GDP in 2043. However, its contribution to GDP will decline from the 2043 Current Path forecast of 55% to 51.9% in the Combined scenario. The remaining sectors will remain largely stable regarding their value-added contribution to GDP. In absolute terms, however, all sectors will grow.

Chart 33: Informal sector in Current Path and Combined Agenda 2063 scenario, 2019-2043

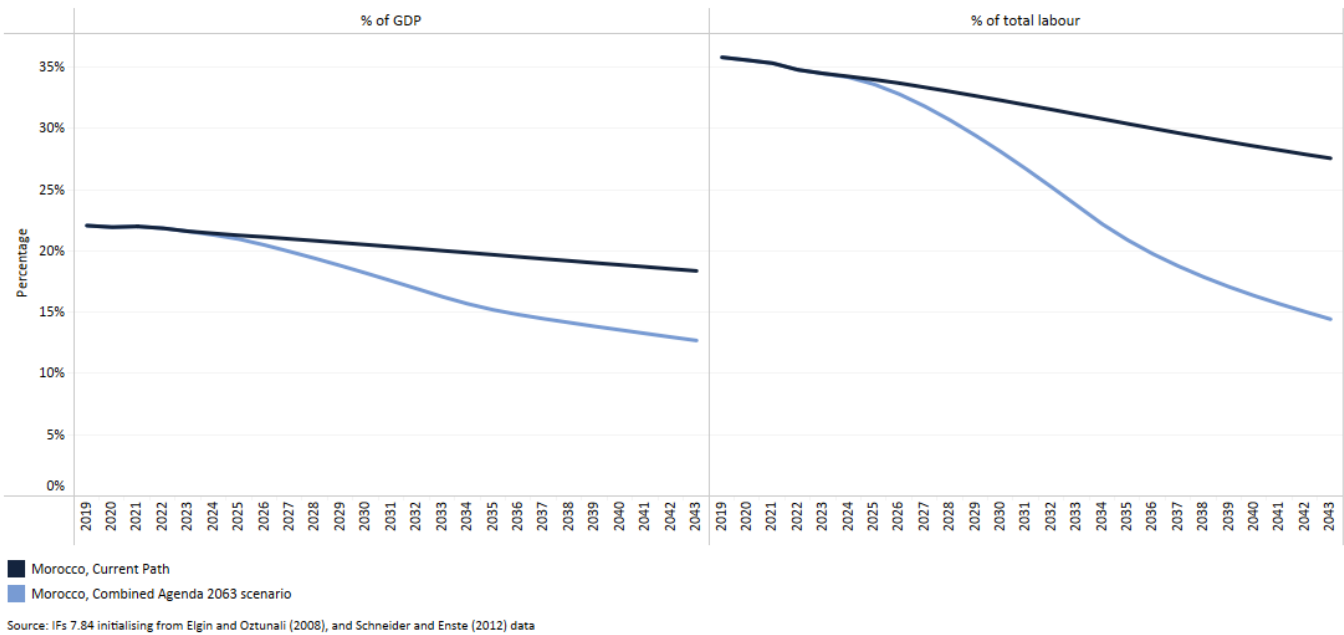


Chart 33 presents the size of the informal sector as a share of GDP and the size of the informal labour force in the Current Path and in the Combined Agenda 2063 scenario. Formalising the economy is an ongoing priority and the government has launched repeated efforts to help small companies through subsidising rent payments to leave the informal sector and integrate into the formal sector. These measures include efforts to improve the business climate in Morocco. The country's ranking according to the Ease of Doing Business Index developed by the World Bank went from 177rd place in 2006 to 52nd place in 2019, which proves that the measures taken have had favourable effects. In addition, an ambitious strategy was designed in 2018 to guarantee access for all individuals and businesses to financial products and services (transactions, payments, savings, financing and insurance, etc..).

The experience with the Tayssir and later the Tademon cash transfer programs, the latter in response to the COVID-19 pandemic and the former to assist with primary school completion, has led Morocco to launch a program to expand social security coverage. This program, currently underway consists of: (i) the extension of the health insurance consisting of Compulsory Health Insurance, (ii) the generalization of family allowances, (iii) the expansion of the retirement system, and (iv) the enlargement of access to compensation for job loss.[1]

Within IFs, Morocco had the third largest informal sector in North Africa (as per cent of GDP) after Mauritania and Tunisia, dropping to the fourth spot on the Current Path forecast for 2043. The average value for Africa's low-middle-income economies in 2019 is at 29.5%.

On the Current Path forecast, the size of the informal sector, as calculated within IFs, would reduce to 12.7% (but increase in value to US\$46.6 billion) in 2043.

The contribution of the informal sector to GDP reduces to 12.8% in the Combined scenario, equivalent to US\$49 billion in 2043.

Within IFs, informal labour constituted 35.8% of total labour in 2019. It would decline to 27.6% on the 2043 Current Path forecast and 14.4% in the Combined scenario. These numbers from IFs are conservative. The Morocco High Commissioner for Planning (HCP) estimated that two-thirds of Moroccan jobs were in the 'grey economy', including most (97%) in the

agricultural sector which is excluded from the data on informality used by IFs.[2]

Chart 34: Life expectancy in Current Path and Combined Agenda 2063 scenario, 2019–2043

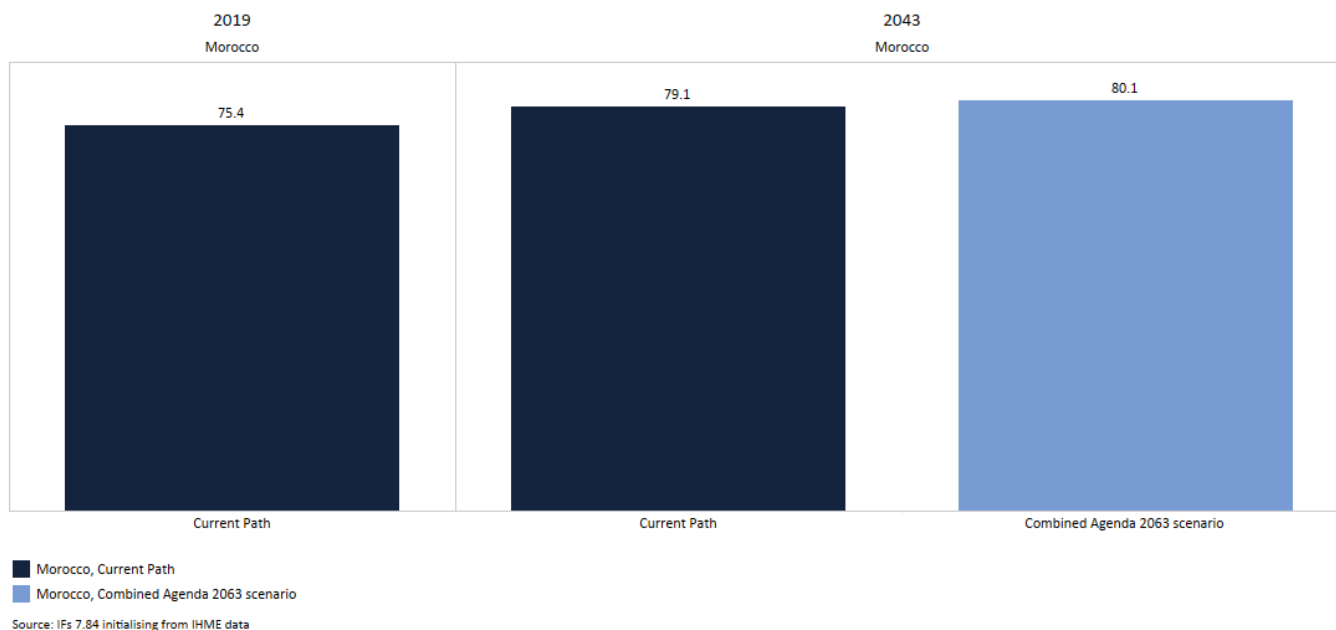


Chart 34 compares life expectancy in the Current Path forecast with the Combined Agenda 2063 scenario.

In 2019, the average life expectancy for Moroccans was 75.4 years, ranking fourth highest in North Africa and more than two years above the global average. Life expectancy in Egypt and Mauritania was below Morocco. Tunisia had the highest life expectancy in the region at 77.8 years. On the Current Path, life expectancy in Morocco will increase to 79.1 years in 2043. In the Combined scenario, average life expectancy is expected to increase to 80.1 years. This is almost 7 years above the average life expectancy for Africa's low-middle-income economies, which is forecast to be 73.2 years by 2043. The 2043 global median is forecast to be 76.3 years, illustrating how well Morocco is doing in this dimension.

Chart 35: Domestic Gini in Current Path and the Combined Agenda 2063 scenario, 2019–2043

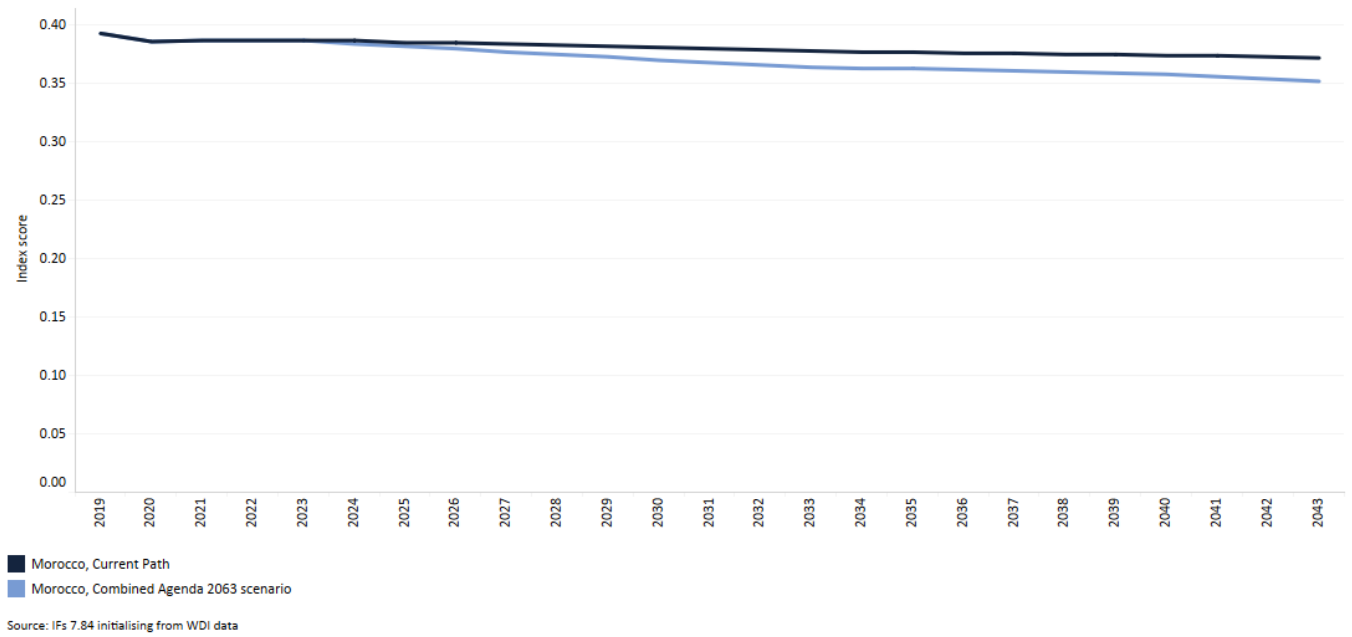


Chart 35 compares the Gini coefficient in the Current Path forecast with the Combined Agenda 2063 scenario.

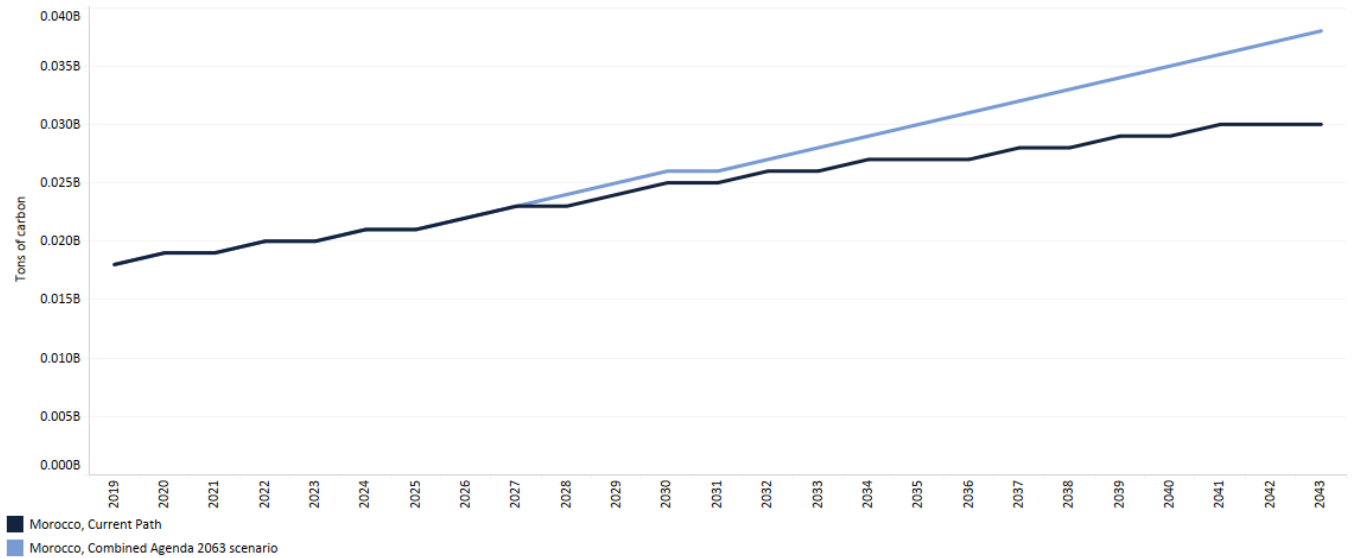
Inequality in Morocco, using Gini, is historically slightly higher than the average for low-middle-income countries in Africa but significantly higher than the average for North Africa. The Current Path forecast is for a modest decline in inequality in Morocco that will accelerate in the Combined scenario. The trend for low-middle-income countries is for a marginal increase in GINI.

A 2021 report^[3] released by the High Commission for Planning (HCP) revealed large disparities between the different strata of Moroccan society. Factors such as age, sex, education, and location (urban vs rural) of the household affect earned income. Rural households account for 66.4% of the low-income population or approximately 4.5 million people. The report found that, In 2019, Morocco exceeded the Gini Index’s “socially tolerable threshold” for household income inequality with a 46.4% rate of inequality, 4.4% over the maximum threshold.

The government has enacted various social welfare programs, including a restructuring of the social security program that promises to offer universal health care, new government allowances, update the current pension program, and increase benefits to those unemployed for completion in 2025.

Chart 36: Carbon emissions in Current Path and in Combined Agenda 2063 scenario, 2019-2043

Million tons of carbon (note, not CO2 equivalent)



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

Chart 36 compares carbon emissions in the Current Path forecast with the Combined Agenda 2063 scenario.

Since carbon dioxide (CO₂), carbon monoxide (CO) and methane (CH₄) have different molecular weights, IFs uses carbon. Many other sites and calculations use CO₂ equivalent.

In 2019, Morocco emitted 18 million tons of carbon from fossil fuels making it the fifth largest emitter in Africa. On the Current Path, emissions will increase to 30 million tons of carbon by 2043, and Morocco will then have declined to the number eight spot in Africa. In the Combined scenario, Morocco will release 38 million tons of carbon (i.e. a 24% increase above the 2043 Current Path forecast) and release the 6th most carbon in Africa.

Among the sectoral interventions, the AfCFTA scenario will release more carbon than any other scenario, resulting in additional emissions of 2.6 million tons above the 2043 Current Path forecast.

Chart 37: Energy demand and production by type in Current Path and Combined Agenda 2063 scenario, 2019-2043

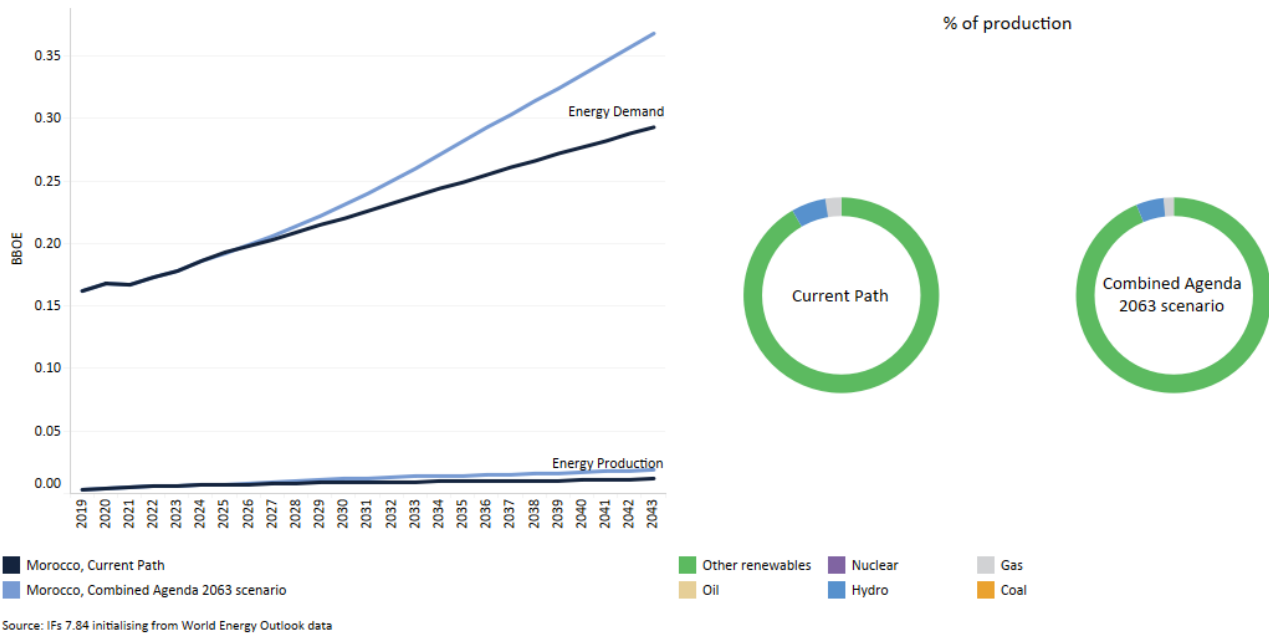


Chart 37 compares energy demand and production in the Current Path forecast with the Combined Agenda 2063 scenario in six types, namely oil, gas, coal, hydro, nuclear and other renewables. All energy data is converted into billion barrels of oil equivalent (BBOE) to allow for comparison between the energy produced by different means.

Morocco depends heavily on imported hydrocarbons to meet its energy needs. While the share of renewables in electricity production is improving steadily, its share in total final consumption (TFC) is decreasing, given the expanding energy demand. Within IFs, Morocco’s total energy production was equivalent to only about 3 million barrels of oil equivalent in 2019. By 2043, production is estimated to increase threefold to 12 million barrels of oil equivalent in the Current Path forecast and 19 million in the Combined scenario, but still only constitute a relatively small percentage of demand.

Morocco’s energy demand was equivalent to 162 million barrels of oil equivalent in 2019, meaning that its domestic production only came to 4% of demand. By 2043, demand will increase to 293 (Current Path) and 368 million barrels of oil equivalent (Combined scenario), pointing to a future of ongoing energy import dependence. In 2043 Morocco will import 96% of its energy requirements in the Current Path forecast and slightly less (95%) in the Combined scenario given the larger increase in domestic production modelled in the latter.

According to IFs the contribution of renewables (excluding hydro) to Morocco’s energy production was equivalent to 2 million barrels of oil equivalent in 2019 (52% of energy production), set to increase to 11 million in 2043 (92%) followed by hydro at 29% and gas at 19%. However, once the imported energy mix from hydrocarbons is taken into account (i.e. its TFC), Morocco’s energy balance[4] is heavily skewed towards fossil fuels consisting of 55% oil, 32% coal, 6% biofuels and waste, 3.5% wind and solar, 3% natural gas and only 0.4% hydro.

The government intends to increase the security of supply by ramping up the use of renewables and increasing energy efficiency, with much of the former likely to come from the private sector, ongoing search for its hydrocarbons (gas and oil) and oil and gas imports from Nigeria. The Combined scenario models the impact of the associated efforts, reflected in a 65% increase in renewable production above the Current Path. However, it is insufficient to offset the increase in fossil fuel import dependence.

Rather than dependence upon Algeria, where relations are fraught, the government is seeking alternative sources of gas supply such as an extension of the existing West African Gas Pipeline^[4], which runs from Lagos, Nigeria, connecting to Cotonou, Benin; Lomé, Togo; and Tema and Takoradi, Ghana. In August 2017, NNPC and ONHYM began a feasibility study for the pipeline. The proposed Nigeria-Morocco Gas Pipeline would additionally connect to Côte d'Ivoire, Liberia, Sierra Leone, Guinea-Bissau, The Gambia, Senegal, Mauritania and Morocco with possible extension to Europe through Cádiz, Spain. The pipeline will cost US\$25 billion and could be completed in stages over 25 years.

For Morocco, the Nigeria-Morocco pipeline is an alternative to the Trans-Saharan Gas Pipeline being considered by Nigeria, arguing that the latter would have to pass through a region with significant militant activity. The current global context makes such projects difficult to finance, however.

Morocco is actively also trying to expand its search for hydrocarbons. According to the Ministry of Energy and Renewables^[5], the country has major sedimentary basins whose geology is comparable to that of neighbouring oil-producing countries but is under-explored. Attracting investors in the current context is proving difficult although. These efforts have recently been scaled up. In 2017 the government issued various research and exploration permits and subsequently entered into oil agreements with various companies and, by 2021, 13 oil companies were operating in Morocco engaged in 53 exploration permits that included 26 offshore areas.

Endnotes

1. Staff writer, Informal sector represents 30% of Morocco's GDP- Central Bank study, North Africa Post, 9 January 2021. K Lahlou, H Doghmi and F Schneider, *The Size and Development of the Shadow Economy in Morocco*, Bank Al-Maghrib, December 2020, Staff writer, *Morocco: Can Cash Transfers Help a Country Reach Universal Primary School Education?* World Bank Brief, no date.
2. A Eljechtmi, *Informal labour accounts for two-thirds of Morocco jobs*, statistics agency reports, Reuters, 30 May 2023
3. M Sauer, *Study: Household Income Shows Large Inequalities in Morocco's Society*, Morocco World News, 29 April 2021
4. [Nigeria-Morocco Gas Pipeline](#)
5. [Hydrocarbon](#)

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Dr Jakkie Cilliers is the ISS's founder and former executive director of the ISS. He currently serves as chair of the ISS Board of Trustees and head of the African Futures and Innovation (AFI) programme at the Pretoria office of the ISS. His 2017 best-seller *Fate of the Nation* addresses South Africa's futures from political, economic and social perspectives. His three most recent books, *Africa First! Igniting a Growth Revolution* (March 2020), *The Future of Africa: Challenges and Opportunities* (April 2021), and *Africa Tomorrow: Pathways to Prosperity* (June 2022) take a rigorous look at the continent as a whole.

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