



EAC

EAC: Scenario Comparison

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

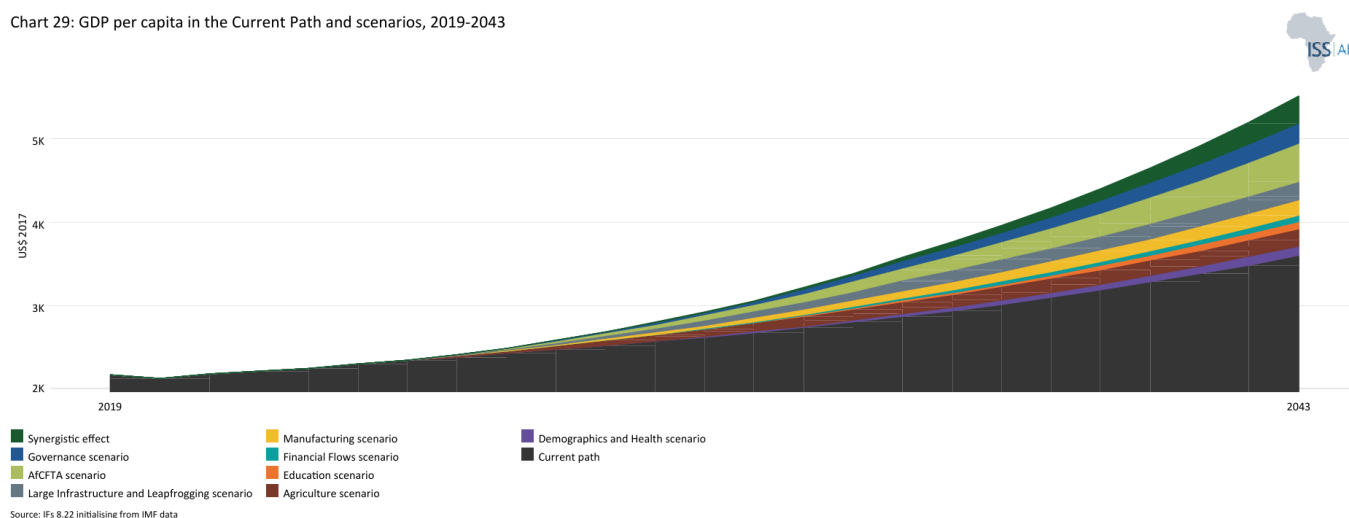


Chart 29 presents GDP per capita in the Current Path and all sectoral scenarios from 2023 to 2043.

The scenario with the greatest impact on GDP per capita by 2043 is the AfCFTA scenario, followed by the Governance, Large Infrastructure and Leapfrogging, and Manufacturing scenarios. The AfCFTA scenario will increase GDP per capita to US\$4 050, which is an increase of 13% compared to the Current Path for 2043. The Governance scenario will increase GDP per capita by 6.8%, followed by the Large Infrastructure and Leapfrogging scenario at 6.2%.

Full implementation of the AfCFTA would serve as a vehicle to boost trade and assist in the transformation of the EAC's economies into producers of higher-value goods and services, moving away from their current focus on low value-added production tied to agri-processing. Freer trade under the AfCFTA is expected to increase both international exports and intra-EAC trade, unlocking greater opportunities for local and global businesses to enter into and expand throughout new markets across the region. This ultimately leads to welfare gains as resources flow to their most productive uses and lower consumer prices, driving economic growth, welfare gains and poverty reductions.

The Manufacturing scenario benefits economic growth in myriad of ways: greater government regulation of the business environment will create an enabling environment for businesses to enter the manufacturing sector; growth in formal jobs, benefitting workers through greater employment security, benefits and labour law protections; and structurally transform the EAC's economies to focus on the production of higher value-added goods and developed a manufacturing sector linking forwards and backwards to various sector of the economy, and creating broad-based economic growth.

The Governance scenario, in turn, will spur on welfare gains through its focus on increasing government capacity, which will improve the ability of the EAC's members to collect tax, thereby boosting revenue, reducing the need for borrowing and making funds available for targeted interventions aimed at promoting growth. The increase in stability modelled in the scenario will also benefit economic growth through greater predictability for international investors and decreased internal displacement of citizens, leading to sustained, uninterrupted economic activity and reduced demand for humanitarian assistance.

Unique national contexts mean countries will benefit more from different scenarios. In Burundi and Somalia, the Agriculture scenario stands to raise GDP per capita the most, at 13.7 and 14% respectively. These two countries have unrealised potential in the agricultural sector and must invest smartly to unlock it. Kenya, DR Congo, Rwanda and Tanzania will all benefit most from the freer trade of the AfCFTA, with DR Congo's GDP per capita rising by 30%, a particularly

impressive increase by 2043. South Sudan and Uganda benefit most from the Large Infrastructure and Leapfrogging scenario, as GDP per capita rises by 9.5 and 8.6% respectively.

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

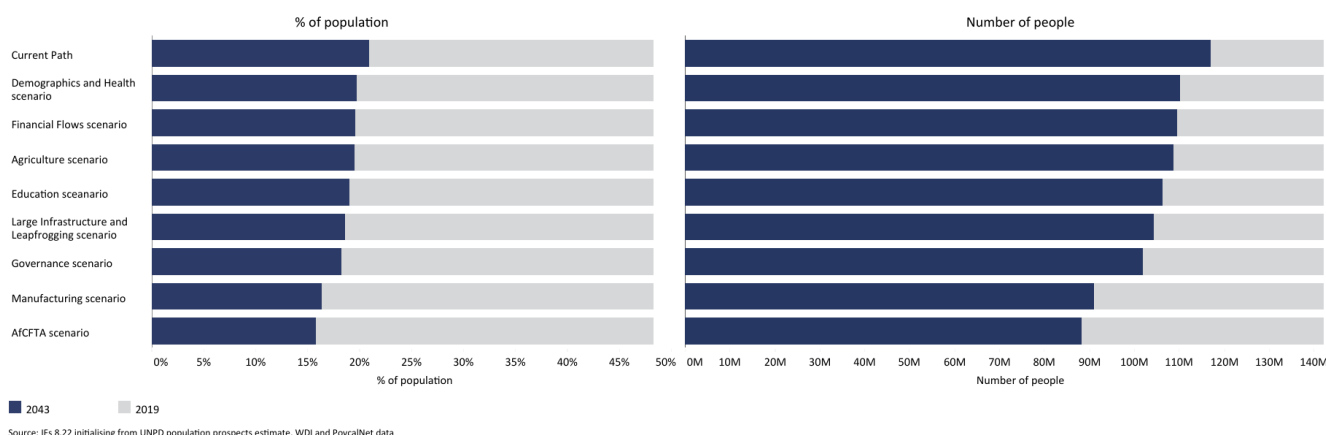


Chart 30 shows poverty in the Current Path and all sectoral scenarios from 2019 to 2043. The user can select the number of extremely poor people or the percentage of the population.

The EAC will benefit most from the AfCFTA scenario in terms of poverty reduction, followed by the Manufacturing and Governance scenarios. The AfCFTA scenario reduces extreme poverty by 5 percentage points reduction, followed by Manufacturing at 4.6 percentage points and Governance at 2.7 percentage points. In absolute terms, the AfCFTA reduces the number of poor people by 28.8 million people, followed by the Manufacturing scenario 26 million and the Governance scenario at 16.1 million. Clearly, a strong emphasis on finalising the full implementation of the AfCFTA is crucial for the REC, as the AfCFTA scenario also increase GDP per capita by the greatest amount compared to other scenarios. A pivot towards increased industrialisation will also benefit the EAC when it comes to poverty reduction, mostly due to the initial benefit of increased government transfers aimed at compensating for job losses in the Manufacturing scenario. Long-term, the positive effects of a larger manufacturing base will increasingly help to combat poverty through higher quality jobs and growing forward and backward integration with other sectors in the economy. Improving governance through anti-corruption campaigns and the implementation of applicable legislation will enable government to be more effective at affecting growth and decreasing poverty.

The Manufacturing scenario is the most effective at reducing poverty in 4 countries, South Sudan, Uganda, Rwanda and Kenya, while the Agriculture scenario reduces poverty the most in Burundi and the AfCFTA scenario in DR Congo. The Financial Flows and Education scenarios have the largest effect in Somalia, down to an increase in foreign aid, and Tanzania respectively. The wide range of scenarios showcase the differing national contexts and the individual interventions each government must adopt to positively affect its citizens.

Chart 31: GDP (MER) in the Current Path and Combined scenario, 2019-2043

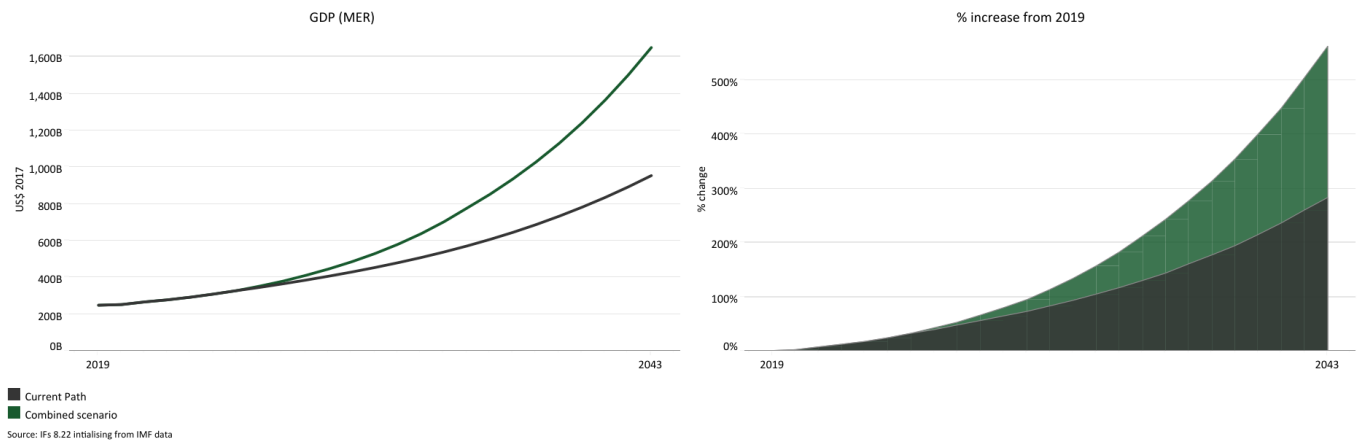


Chart 31 presents GDP in the Current Path and in the Combined scenario, from 2023 to 2043. The data is in US\$ 2017 and at market exchange rates.

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

In the Combined scenario, the EAC’s combined GDP will reach US\$1.7 trillion by 2043, a 75% increase over the Current Path of US\$954 billion. The impressive performance of the REC is driven by substantial increases in DR Congo, Kenya, Tanzania and Uganda, whose economies grow by US\$206 billion, US\$193 billion, US\$135 billion and US\$102 billion respectively, compared to the Current Path in 2043. Kenya will remain the dominant economic force, constituting 31% of the REC’s combined GDP, while DR Congo will be the second largest economy, overtaking Tanzania to reach 22.6% of the EAC’s total economic size. This represents an increase of nearly five percentage points compared to the Current Path for 2043, in which it made up only 17.9% of the REC’s economy. In percentage terms, Somalia and DR Congo see the largest increases at 123% and 121% respectively, while the rest of the EAC’s members see growth between 87% and 58%.

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

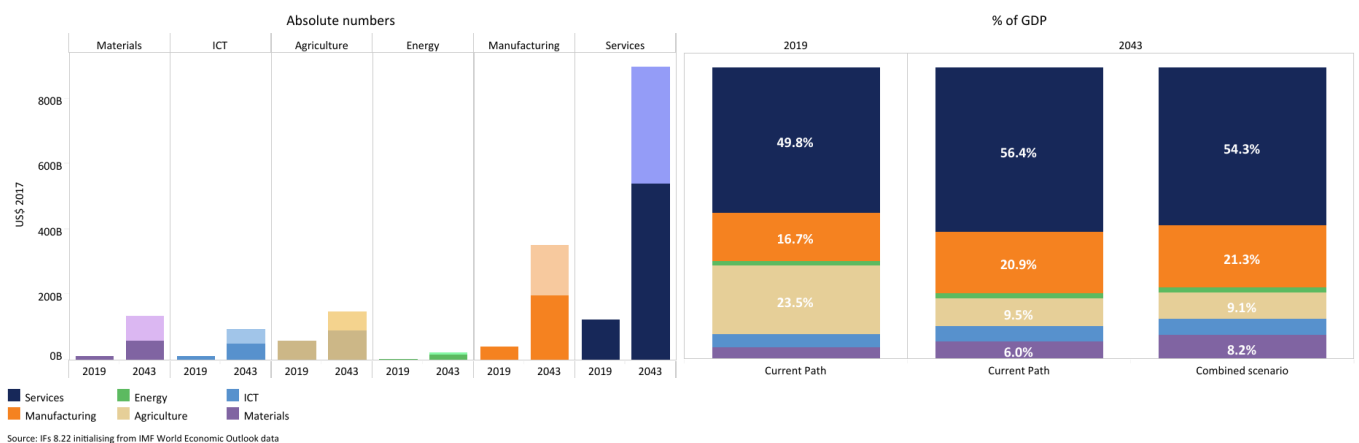


Chart 32 presents the value added by sector in the Current Path and in the Combined scenario, from 2023 to 2043. The data is in US\$ 2017 and as a % of GDP.

Over the forecast period, the composition of the EAC economy will change substantially: the Agriculture sector will see its share of value added as a % of GDP drop from 22.6% in 2023 to 9.5% by 2043. In the Combined scenario, the decrease is slightly more, with the sector making up 9% of the economy by 2043. The Manufacturing sector will also increase in importance, with its contribution in the Current Path growing from 16.9% to 20.9% over the forecast period; in the Combined Scenario this ticks up slightly to 21.4%. Lastly, the Services sector contribution will swell from 50% to 54.4% in the Current Path, while this increases to 56.4% in the Combined scenario by 2043.

The composition of individual countries' economies will significantly shift over the forecast horizon, with every state seeing their Agriculture sector decrease in contribution and their Services sector grow in influence. South Sudan is the only country where the the Agriculture sector sees a decrease in value added as a % of GDP smaller than 10 percentage points in 2043; the sector was already small at 7% in 2023. The largest increase in contribution from Services will be in Tanzania, where the sector makes up 11 percentage points more of the economy in 2043 compared to 2023, rising from 51% to 62% in the Current Path. A few countries will also see their manufacturing sector's contribution to the economy grow, with South Sudan's reaching 27% of total value added by 2043, up 20 percentage points from 7% in 2023. Burundi will also see its Manufacturing sector's contribution grow by 10 percentage points to 17% by 2043. South Sudan also diversifies away from the energy sector and the exporting of oil, as its contribution to the economy drops from 41% to 27%.

The Combined scenario impacts countries in differing ways: South Sudan and Burundi will see their Manufacturing sector become even more important than in the Current Path. In South Sudan, 36% of total value added will stem from Manufacturing by 2043 in the Combined scenario, compared to 27% in the Current Path. Similarly, Burundi's Manufacturing sector will contribute 22% of value added, up from 17% in the Current Path. Somalia's Agriculture sector will constitute even less in the Combined scenario by 2043, shrinking from 24% of total value added to 16% by 2043.

In terms of growth in the size of each sector in the Combined scenario, the largest increase are in the Services sector. In 2043, Kenya's Services sector will be US\$123 billion larger compared to the Current Path, followed by Tanzania with an increase of US\$83 billion and DR Congo with US\$61 billion.

DR Congo will also see the size of its Manufacturing sector grow appreciably, rising by US\$51 billion in 2043 compared to the Current Path. Uganda's Manufacturing sector will grow by US\$37 billion and Kenya and Tanzania's by US\$26 billion each. Although Agriculture will see it's share of total value added fall over the forecast horizon, Kenya, DR Congo, Tanzania and Uganda's agriculture sectors will grow in absolute terms. Kenya's will grow by US\$26 billion, followed by Tanzania at US\$13 billion, DR Congo at US\$9 billion and Uganda at US\$4 billion.

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

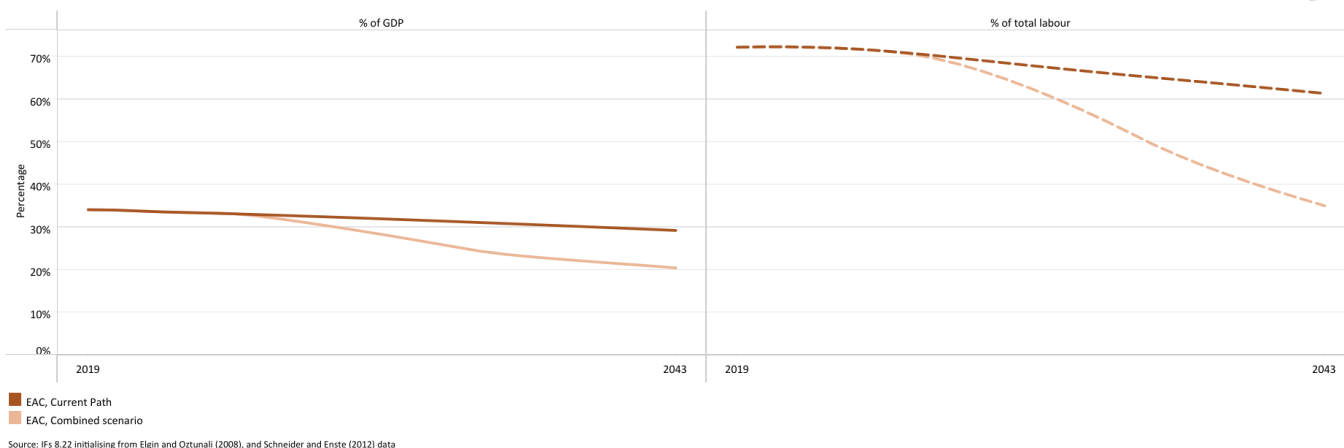


Chart 33 presents the size of the informal sector as % of the total economy in the Current Path and in the Combined

scenario, from 2023 to 2043.

The informal sector is an important source of employment in the EAC, as well as a means of survival for a large part of the population. In the Combined scenario, the size of informal labour force will rapidly decrease from 72% in 2023 to 35% in 2043, 26 percentage points below the Current Path for the same year. As a result, the informal economy will also decrease in size, reaching the 20% of GDP by 2043, 9 percentage points lower than in the Current Path.

DR Congo will see the largest drop in the size of its informal sector in both the Current Path and Combined scenario, while Kenya, coming from a much lower base, will see the smallest decreases. By 2043, the size of DR Congo's informal economy will equate to 24.6% in the Combined scenario, 9.5 percentage points lower than in the Current Path. South Sudan will see strong progress in the Combined scenario, as its informal economy shrinks to 18.7% of GDP, 12.6 percentage points lower than in the Current Path for 2043.

Kenya will remain the country with the smallest informal sector, both in terms of labour force size, as a % of the total labour force, and as % of GDP. In the Combined scenario, the country's informal labour force will equate to 12.4% of the total labour force, 18.2 percentage points lower than the Current Path for 2043. Uganda will still have the largest informal labour force, at 56%, by 2043 in the Combined scenario, but this represents a 21 percentage point decrease compared to the Current Path.

Chart 34: Life expectancy in the Current Path and Combined scenario, 2019-2043

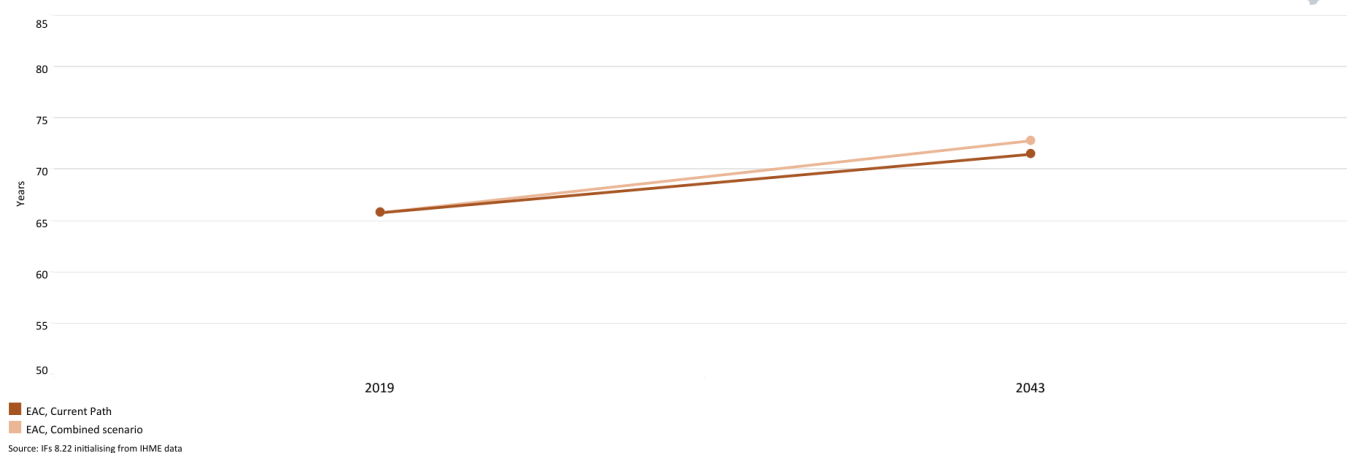


Chart 34 compares life expectancy in the Current Path with the Combined scenario from 2019 to 2043.

The average life expectancy in the EAC stood at 67 years in 2023, 0.6 years above Sub-Saharan Africa's average but 6.5 years below that of North Africa. In the Combined scenario, the REC's life expectancy will climb to 72.9 by 2043, which is 1.4 years above the Current Path. The EAC will have surpassed the Sub-Saharan African average of 71.8 and closed the gap to North Africa's 76.8.

In 2023, Rwanda had the highest life expectancy at 69.8 years, followed by Kenya and Tanzania. Somalia lagged far behind at 61 years, the fifth lowest in Africa. The gap to Burundi, who performed the next worst in the REC at 65.1 years, stood at 4.1 years; by 2043, Somalia will close the gap to 2 years with a life expectancy of 68 years in the Current Path. The Combined scenario benefits South Sudan and Somalia the most, increasing their life expectancy by 2.1 and 1.9 years respectively compared to the Current Path for 2043.

Chart 35: Domestic Gini in the Current Path and Combined scenario, 2019-2043

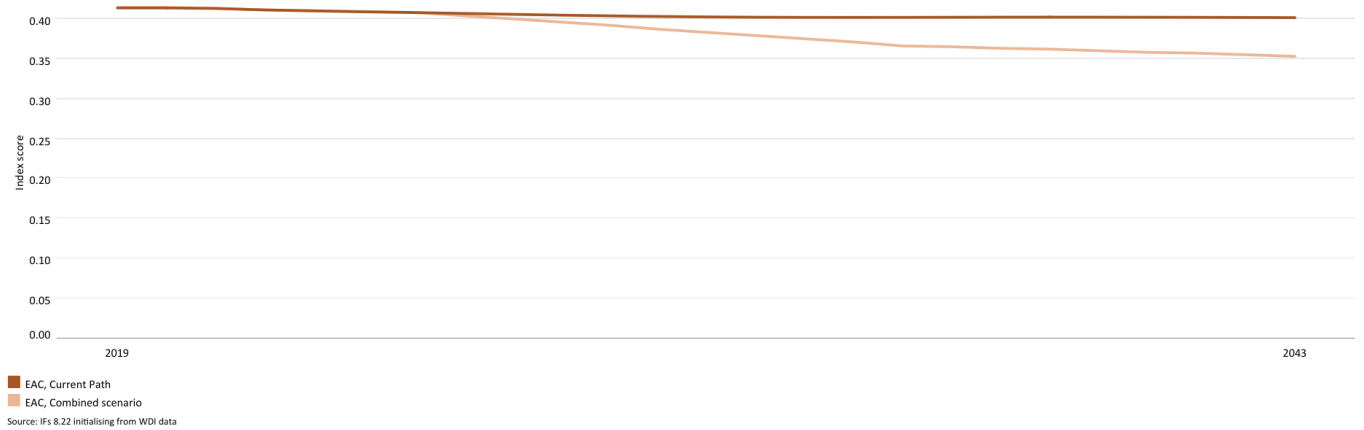


Chart 35 compares the Gini coefficient in the Current Path with the Combined scenario, from 2023 to 2043.

The EAC is a highly unequal region, with impressive economic growth failing to translate to meaningful improvements in quality of life for the majority of its citizens. In particular, South Sudan, Uganda and Rwanda rank among the top 40 **most unequal countries** in the world, while all eight members rank above the world's average in terms of their Gini coefficient. The richest 10% of the population received 47% of pre-tax income in 2021, and **while taxation is progressive**, corruption and a lack of budget transparency has hampered anti-inequality measures. The EAC's average Gini in 2023 was 0.41, and will decrease to 0.35 in the Combined scenario by 2043, a 13% drop compared to the Current Path.

The most unequal country in the EAC in 2023 was South Sudan, with Gini score of 0.45, followed by Rwanda and Uganda. Somalia and Burundi had the lowest scores at 0.37. The Combined scenario dramatically reduces inequality in the REC: South Sudan's Gini score will drop to 0.33 by 2043, 26% below the Current Path. Similarly, DR Congo will see its score drop 21% to 0.31 by 2043, while Tanzania will see the smallest reduction of 5.7%.

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

Million tons of carbon (note, not CO2 equivalent)

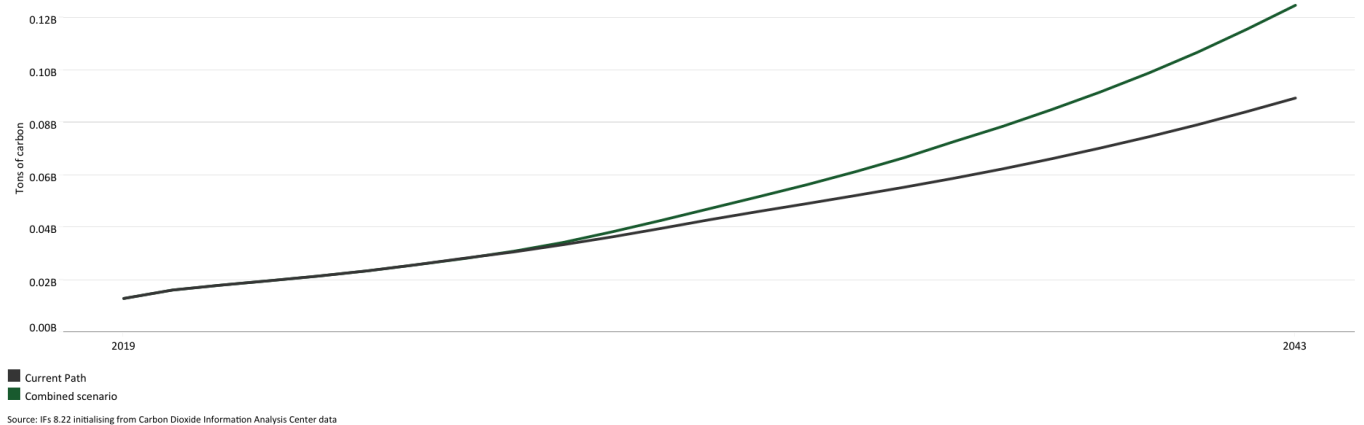


Chart 36 compares carbon emissions in the Current Path with the Combined scenario from 2019 to 2043.

East Africa has borne the brunt of climate change-related extreme weather events for some time, and recent droughts and floods have severely threatened the livelihoods and survival of millions of people. The region has seen **contrasting trends**

play out at the same time: as areas in South Sudan were hit with abnormal flooding and southern Tanzania saw wetter-than-normal rainfall seasons, Kenya, Uganda and Somalia were battling with droughts caused by drier-than-normal rainy seasons. Additionally, East Africa has experienced above-average rises in temperatures compared to other global regions: while most of the world has seen its temperatures rise by 1.1 degrees Celsius compared to pre-Industrial Revolution levels, East Africa has seen rises above 2 degrees. The effect of this on long-term growth could be disastrous: an AfDB study found that climate change-related risks have the potential to decrease median GDP per capita in the region by between 10% and 16% by 2050. Particularly concerning is the effect climate change will have on the agriculture sector, which is the main livelihood of the majority of the EAC's population and a significant contributor to economic growth.

Despite the devastating impact of climate in the region, the EAC as a region is a low emitter of carbon emission. In 2023, the EAC emitted 21 million tons of carbon, equaling 0.2% of global emissions. By 2043, the EAC will increase its emissions to 89 million tons, which will only constitute 0.8% of global carbon output. The Combined scenario increases the EAC's carbon emissions considerably, due to the increased economic activity the scenario entails: by 2043, the REC will produce 42% more carbon at 126 million tons, but this will still only make up 1.2% of global carbon emissions.

In 2023, Kenya being the largest economy in the region emitted the most carbon in the EAC, at 7.2 million tons, followed by Tanzania and Uganda. By 2043, the picture will have shifted, and Tanzania, Uganda and DR Congo will be the top three emitters, with Kenya dropping to fourth. Kenya will continue to produce most of its energy through renewable sources, while Tanzania and Uganda will continue to rely on oil and gas, adding to their carbon emissions output. DR Congo is forecast to experience rapid economic growth in the Combined scenario, and coupled with large increases in population size, will significantly grow its carbon emissions. The Combined scenario will have the largest effect in Tanzania, raising emissions by 8 million tons compared to the Current Path for 2043. The Tanzanian economy will emit 28% of the REC's carbon by 2043, while Kenya's contribution will fall from 34% in 2023 to 18% at the end of the forecast period. Rwanda, South Sudan, Somalia and Burundi will remain tiny emitters in the Combined scenario: all four will emit less than 8 million tons by 2043.

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

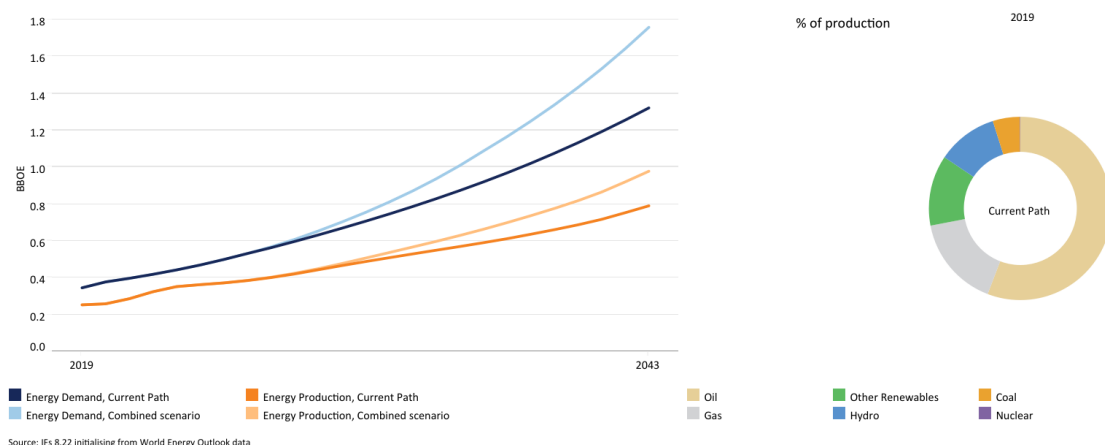


Chart 37 compares energy production from 2023 to 2043 in the Current Path with the Combined scenario. Production is done in six types, namely oil, gas, coal, hydro, nuclear and other renewables. The data is converted into billion barrels of oil equivalent (BOE) to allow for comparisons between different sources. Note that energy production could be for domestic use or export.

The EAC relies predominantly on oil, gas, and coal for its energy production needs, and the REC aims to create an enabling environment for the efficient extraction, refinement, and use of these fossil fuels as it achieves energy self-sufficiency. A number of oil and gas pipeline projects have been identified in this regard: the East African Crude Oil Pipeline (EACOP),

which is currently under construction, will run from Lake Albert in Uganda to the port of Tanga in Tanzania; Kenya and Uganda have **recently signed an MoU** to extend an oil pipeline from Nairobi to Kampala, with the EAC hoping it could be extended to Rwanda and Burundi in the future; Tanzania has signed a deal with European companies to **export natural gas** from its off-shore deposits, starting after 2030. Furthermore, current planning to meet future energy demand needs **heavily includes coal-fired power plants**, with a total of 100GW of new plants planned for the next 20 years, if existing power pool master plans are implemented.

Even before these planned projects aimed at increasing fossil fuel production and exportation, the REC is a leader when it comes to renewable energy on the continent. In 2023, 28% of EAC's energy came from hydro, and 45% from other renewables (solar, wind and geothermal primarily). The region also has enormous potential to significantly boost its renewable energy production: **IRENA estimates** that the region could meet up to 63% of its electricity needs through renewables by 2040, due in large part to underutilised potential for solar and wind power. Additionally, the potential impact of importing energy production for the Grand Ethiopian Renaissance Dam (GERD) and finally completing the Grand Inga 3 dam is sizable and would contribute significantly in meeting the region's growing energy demand. The **World Bank warns**, however, that the region first needs to deal with certain obstacles to investment, such as political instability, weak governance, inadequate regulatory frameworks and insufficient financing.

Nuclear energy production is also being prioritised by a number of EAC states, with Rwanda, Kenya, Uganda and Tanzania at varying phases of nuclear reactor projects. All these projects will only see generation capacity added to the grid in the **early 2030's**, if no delays in construction and project implementation occur. Reservations exist regarding the timeframe and financial costs involved to generate nuclear energy; for example, upgrading the transmission infrastructure of the current electricity grid is a **major constraint** to future nuclear energy development. Countries need to consider the **financial implications** of financing these major projects, with large loans and prohibitive interest payments potentially constraining government spending on other development priorities.

The energy production profile shows that the EAC is on course for a transition away from oil towards gas, hydro and other renewables. In 2023, oil made up 51% of energy production, followed by 16% for gas, 13% for other renewables, 13% for hydro, while coal made up only 7%. By 2043, the shares would have shifted significantly: oil will decline to 32%, while hydro and other renewables increase to 18% and 26% respectively. Gas will also rise to 23%, while coal shrinks to 2% by 2043. In absolute terms, energy production from Hydro will increase by 168 million BOE in the Combined scenario in 2043, while gas and other renewables will increase by 79 and 76 million BOE respectively. In total, REC will produce 405 million BOE of additional energy by 2043 in the Combined scenario. However, the REC will face continuing shortages of energy, as energy demand further outstrips demand. In 2023, the EAC had a shortage of 90 million BOE, which will grow to 530 million BOE. The Combined scenario worsens this trend, with the shortfall growing to 780 million BOE by 2043, an increase of 47% compared to the Current Path deficit. Generating enough energy to fuel the economic growth possible in the Combined scenario is a key constraint the EAC's members will have to overcome if they are to fully benefit from the interventions proposed in the scenario.

The individual energy mixes and amount of energy produced of the EAC's members vary considerably: 17.6% of all the energy produced in the REC comes from South Sudan's oil, followed by 12.4% from Kenya's other renewables, 10.3% from Tanzania's oil and 9.8% from DR Congo's oil. By 2043, Kenya's other renewables produce the most energy, at 190 million BOE or 23.5% of the REC's total energy production. In the Combined scenario, this falls to 21.7%, due to DR Congo's hydro producing 17.8% of the EAC's total energy, a 5 percentage point increase from the Current Path. The positive trend towards renewables does not however solve the shortfall in energy most EAC members are experiencing. By 2043, 7 members' energy deficits will have grown in the Combined scenario, except South Sudan, where increased oil production sates demand. Kenya will have the largest deficit, at 211 million BOE, followed by Uganda and Tanzania at 205 million BOE and 196 million BOE respectively

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Mr Du Toit McLachlan joined the ISS in February 2021. He holds an honour's degree in international relations from the University of Pretoria and is the AFI website manager. His research interests include gender equality, international trade, and international geopolitics.

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