



ECCAS

ECCAS: Scenario Comparisons

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

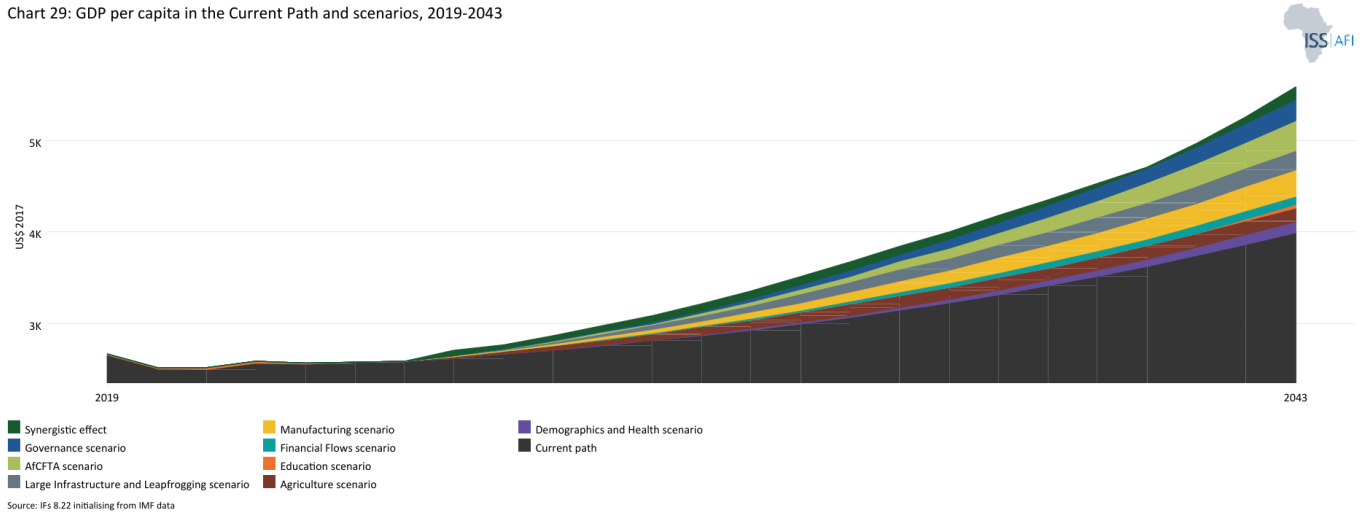


Chart 29 presents GDP per capita in the Current Path and all sectoral scenarios, from 2019 to 2043.

The scenario with the greatest impact on GDP per capita by 2043 is the AfCFTA scenario, followed by the Manufacturing and Governance scenarios. Under the AfCFTA scenario, ECCAS's GDP per capita will rise to US\$4 317, representing an increase of US\$325 or 8.1% above the Current Path. In the Manufacturing scenario, GDP per capita will be US\$233 or 5.8%, higher than the Current Path. This underscores the importance of addressing the region's governance challenges and ensuring that member states ratify and fully implement the continental free trade agreement to unlock their development potential. Investment in physical infrastructure, crucial for development, will further catalyse growth. Conversely, the scenarios with the least impact on GDP per capita are the Financial Flows and Demographics and Health scenarios.

The AfCFTA, Financial Flows, and Governance scenarios have the greatest overall impact on GDP per capita across the countries analyzed. The AfCFTA scenario significantly boosts GDP per capita in Equatorial Guinea and Rwanda, while its impact is less pronounced in Chad and the Central African Republic. The Financial Flows scenario most benefits Equatorial Guinea and Gabon, with minimal impact in Burundi and the Central African Republic. Similarly, the Governance scenario has a substantial influence on GDP per capita in Gabon and Equatorial Guinea but shows limited effects in Burundi and Chad.

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

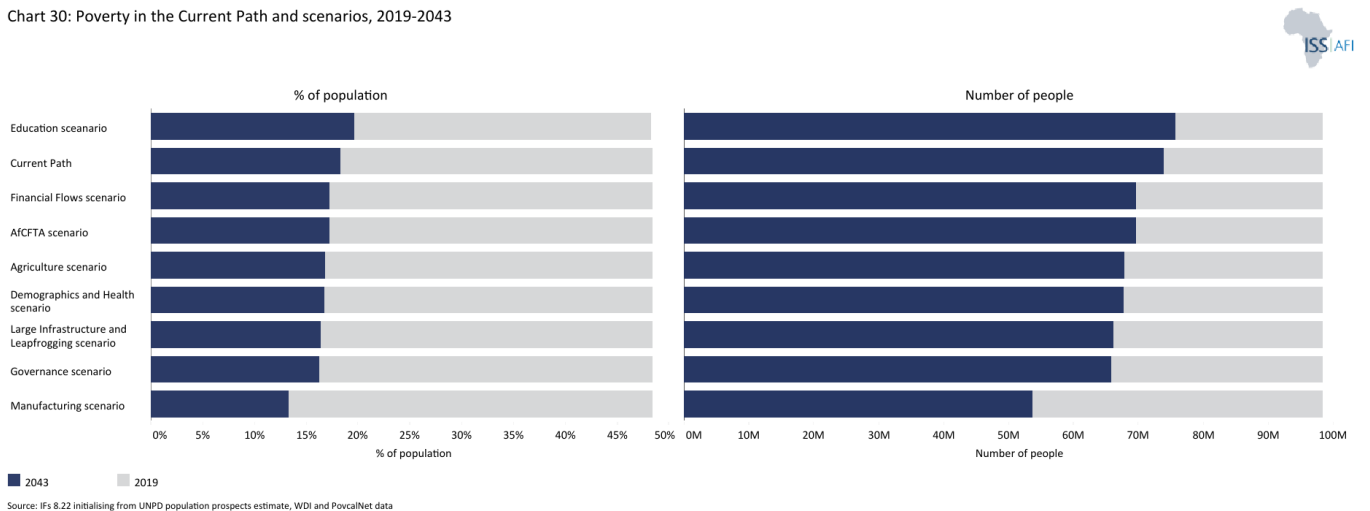


Chart 30 shows poverty in the Current Path and all sectoral scenarios, from 2019 to 2043. The user can select the number of extremely poor people or the percentage of the population.

The scenarios with the greatest potential to reduce extreme poverty by 2043 in ECCAS are the Manufacturing, Education and Governance scenarios. In the Manufacturing scenario, there will be 20.2 million fewer extremely poor people compared to the Current Path. The Education and the Governance scenarios have the potential to reduce extreme poverty in the region by 8.9 million and 8 million people, respectively. These scenarios are interconnected in their potential to reduce extreme poverty in ECCAS. A strong manufacturing sector can create jobs and drive economic growth, but it requires a well-educated workforce and a stable governance environment to thrive. Education equips individuals with the skills and knowledge needed to participate in the labor market and contribute to economic development. Good governance promotes stability, security and the rule of law, which are essential for attracting investment and fostering a conducive environment for businesses and job creation. By focusing on these three areas, ECCAS countries can create a virtuous cycle of economic growth and poverty reduction.

In all scenarios, the DR Congo and Burundi see the greatest poverty reduction, except in the Manufacturing scenario, where Angola replaces Burundi. In the AfCFTA scenario, Chad and the Republic of Congo experience the smallest reductions in poverty. Gabon consistently sees the least poverty reduction across multiple scenarios, including Agriculture, Demographics and Health, Education, Financial Flows, Governance, Large Infrastructure and Leapfrogging, and Manufacturing. Equatorial Guinea shows minimal progress in the Agriculture, Financial Flows, and Large Infrastructure and Leapfrogging scenarios, while São Tomé and Príncipe sees the least poverty reduction in the Demographics and Health, Governance, and Manufacturing scenarios. Rwanda experiences the smallest poverty reduction in the Education scenario.

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

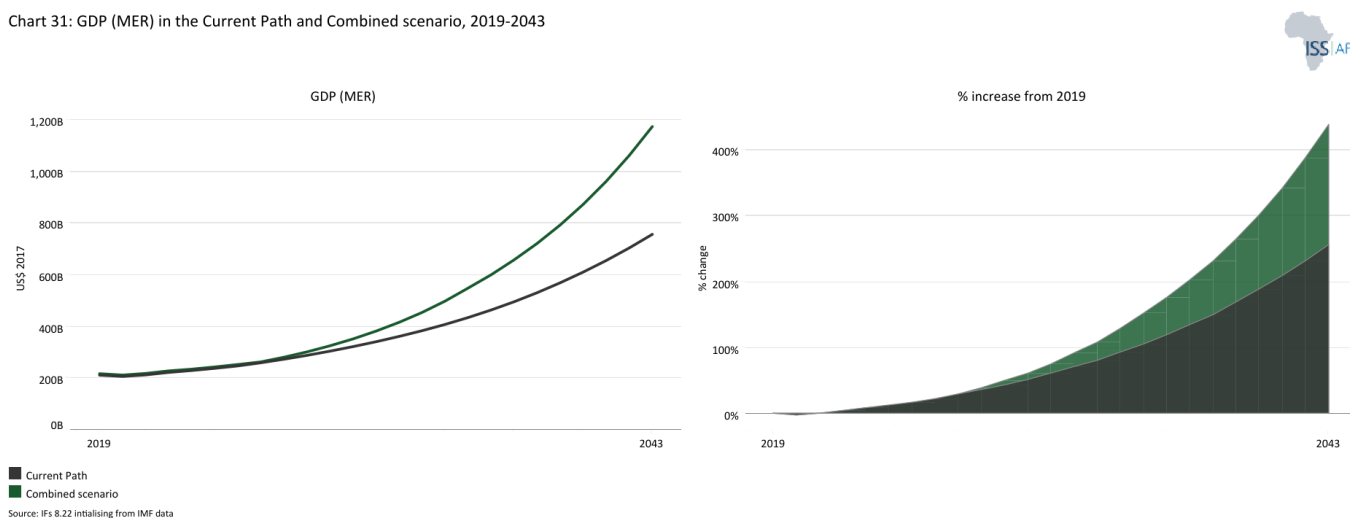


Chart 31 presents GDP in the Current Path and in the Combined scenario, from 2019 to 2043. The data is in US\$ 2017 and at market exchange rates.

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

The GDP of ECCAS will increase from US\$235.6 billion in 2023 to US\$1.2 trillion by 2043 in the Combined scenario. This represents an increase of 409% within this period. The size of the ECCAS economy will be 127.7% larger in the Combined scenario than in the Current Path. The large increase will be driven by DR Congo's economy, which will account for 38.8% of total GDP in the region by 2043, followed by Angola and Cameroon at 24.5% and 14.2%, respectively. DR Congo demonstrates the most significant improvement in the Combined scenario, with the economy expanding by an additional

US\$222.8 billion compared to the Current Path. This growth can be attributed to enhanced management and exploitation of its abundant natural resources, including cobalt, and rising global demand for these critical materials, particularly as the popularity of electric vehicles, reliant on cobalt-based batteries, surges. This is followed by Angola and Cameroon, which see increases of US\$90.3 billion and US\$56.7 billion, respectively. Conversely, São Tomé and Príncipe, the Central African Republic, and Burundi will experience the smallest relative changes in GDP within the Combined scenario, with gains of US\$1 billion, US\$5.2 billion and US\$9 billion, respectively.

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

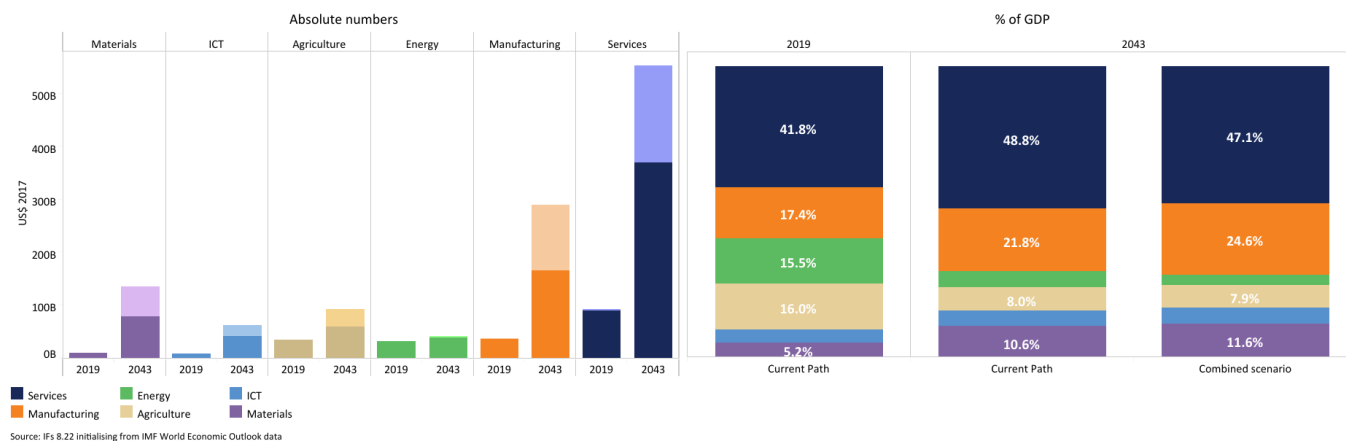
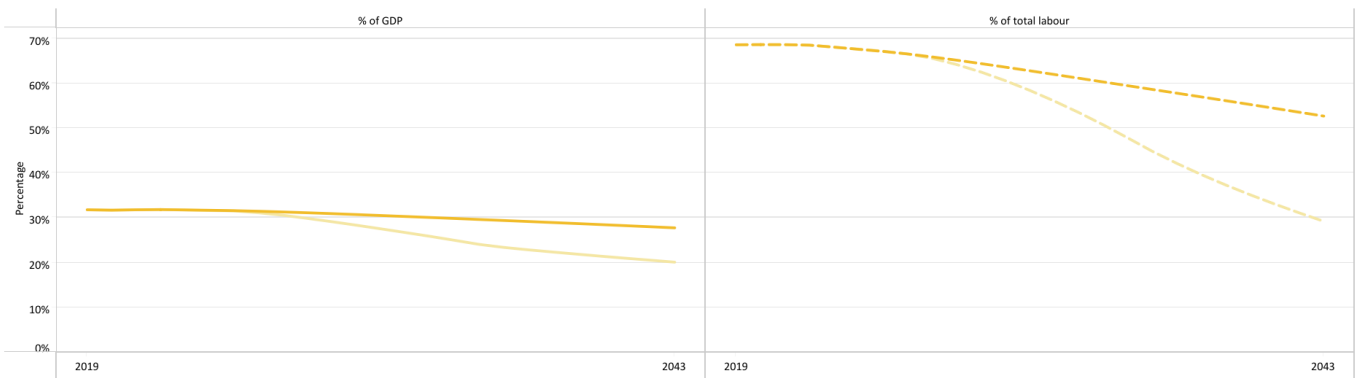


Chart 32 presents the value added by sector in the Current Path and in the Combined scenario, from 2019 to 2043. The data is in US\$ 2017 and as a % of GDP.

In the Combined scenario, the service sector's contribution to GDP will be US\$201.3 billion larger than in the Current Path for 2043, equivalent to 46.5% of GDP. Manufacturing will be the second-biggest contributor, adding US\$133.7 billion to the regional economy above the Current Path to constitute 24.3% of the ECCAS economy in the scenario. The materials sector will also contribute US\$83.4 billion more in the scenario than in the Current Path, equivalent to 13.3% of GDP. Agriculture will contribute US\$29.7 billion above the Current Path, accounting for 7.3% of GDP in the scenario. The contributions of ICT and energy will account for 5.1% and 3.4%, respectively, translating to US\$21.7 and US\$2.3 more than in the Current Path by 2043.

In the Combined scenario, the service sector in São Tomé and Príncipe will contribute 75.5% to GDP, the largest contribution in the region, while that of the Republic of Congo will be the lowest at 32.9% of GDP. At 36.8%, Republic of Congo's manufacturing sector will be the largest in the region while São Tomé and Príncipe's contribution of 7.2% to manufacturing in the scenario will be the lowest. The contribution of materials to GDP in the scenario will range from 29% in DR Congo to a paltry 0.6% in São Tomé and Príncipe by 2043. The agriculture sector in the Central African Republic will be largest in the region contributing 23.4% while the ICT sector in Equatorial Guinea (8.8%) and the energy sector in the Republic of Congo (16.5%) will be the largest in the region.

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



Legend:
■ ECCAS, Current Path
■ ECCAS, Combined scenario

Source: IFS 8.22 initialising from Elgin and Ottunali (2008), and Schneider and Enste (2012) data

Chart 33 presents the size of the informal sector as a percentage of the total economy in the Current Path and in the Combined scenario, from 2019 to 2043.

The informal sector in ECCAS is **characterized** by high prevalence, a focus on agriculture and trade, limited access to formal financial services, vulnerability to shocks, and a significant role in cross-border trade. Despite these challenges, it remains a vital source of employment and income for many people in the region.

In 2023, the informal sector played a substantial role in ECCAS's economy, contributing 31.7% to GDP. DR Congo had the highest reliance on the informal sector, with a 42% contribution, followed by the Central African Republic at 40%. In contrast, Equatorial Guinea had the lowest reliance, with only 13.4% of its GDP coming from the informal sector, followed by Cameroon at 23.5%.

The informal labor force was also significant, accounting for 68% of total employment. DR Congo once again had the highest proportion of informal laborers at 83.8%, while Equatorial Guinea had the lowest at 19%.

In the Combined scenario, by 2043, the informal sector will account for 19.4% of GDP, a decrease from 27.8% in the Current Path. The Central African Republic will have the highest share at 23.5%, followed closely by the Republic of the Congo at 23.3% and Chad at 22.2%. In contrast, Equatorial Guinea will have the lowest contribution at just 1%, followed by Cameroon at 14.7% and São Tomé and Príncipe at 15.3%. The Central African Republic will experience the largest reduction in the informal sector's share of GDP, decreasing by 12.5%, followed by the DR Congo with a reduction of 12%. Angola will see the least reduction at 5.3%, with Cameroon not far behind at 6.5%.

By 2043, the informal labor force will decrease significantly to 29.2%. At that time, the Central African Republic will have the highest proportion of informal laborers at 42.5%, while Equatorial Guinea will continue to have the lowest, with only 1% of its labor force in informal employment

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.

In 2023, the average life expectancy for people in the ECCAS region was 65.5 years, which was lower than the average of 67.4 years for Africa. It was lowest among the RECs. On average, females in ECCAS live about 4.5 years longer than males. Among member countries, life expectancy was highest in São Tomé and Príncipe (72 years) and Rwanda (69.8 years), and lowest in the Central African Republic (53.9 years) and Chad (61.6 years). In the Current Path, life expectancy in the region will increase to 70.6 years by 2043. However, the Combined scenario leads to a greater increase such that, by 2043, the average life expectancy in ECCAS will be around 72.2 years, below the average of 72.6 years for Africa in the same year.

In the Combined scenario, São Tomé and Príncipe will still have the highest life expectancy in the region at 77 years. This will be followed by Rwanda and Angola at 75.6 years and 75.3 years, respectively. Central African Republic, Chad and DR Congo will have the lowest life expectancies (63.8 years, 70.8 years and 71.1 years, respectively). The largest increase in life expectancy between the Current Path and Combined scenario will occur in Central African Republic, Chad and Equatorial Guinea which will see averages increase by 4.9, 3.7 and 2.7 years, respectively. The smallest increments will be seen in DR Congo, Republic of Congo and Rwanda with life expectancies lengthening by only 0.88, 0.90 and 0.94 years, respectively.

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

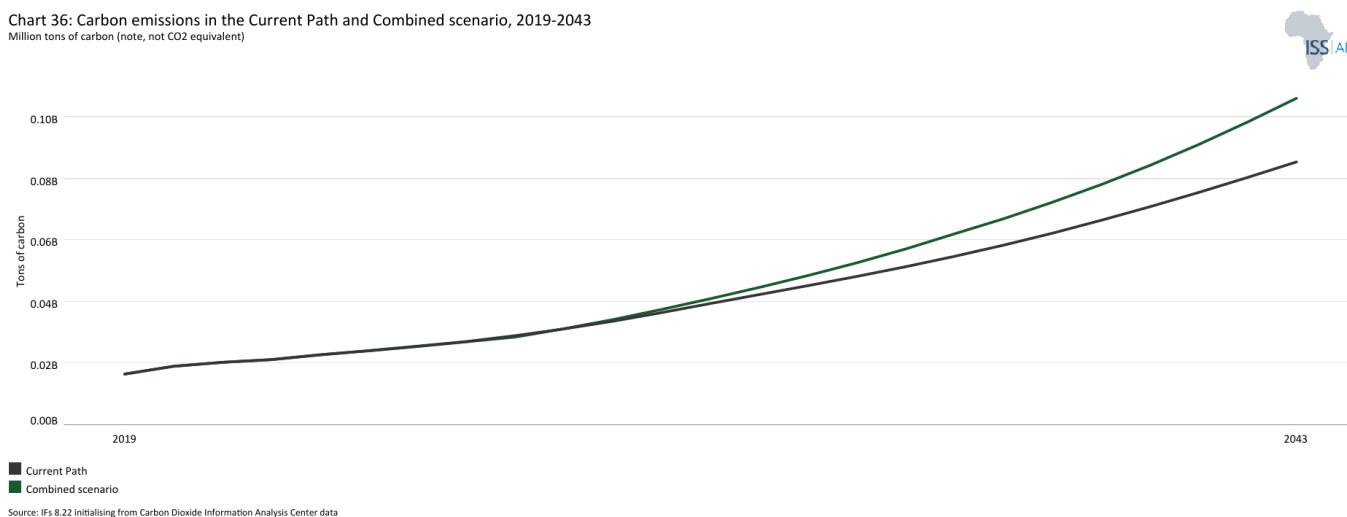


Chart 35 compares the Gini coefficient in the Current Path with the Combined scenario, from 2019 to 2043.

In 2023, ECCAS's Gini coefficient was 0.44 compared to the average of 0.40 for Africa. This makes ECCAS the second most equal region among the RECs. Among member states, it ranges from 0.56 in the Central African Republic to 0.37 in Burundi.

On the Current Path, income inequality in ECCAS will decrease with a Gini coefficient of 0.42 by 2043. In the Combined scenario, inequality in ECCAS will be lower than the Current Path with a Gini coefficient of 0.38 by 2043. Among member countries, the Central African Republic (0.61) will continue to be the most unequal country in the region followed by Angola (0.50) and Equatorial Guinea (0.49). DR Congo (0.30), Burundi (0.33) and Liberia (0.35) will be the least unequal countries. The greatest reduction in inequality occurs in DR Congo, Burundi and Rwanda while the lowest reduction occurs in Cameroon, Angola and Gabon.

Chart 36: Carbon emissions in the Current Path and Combined scenario, 2019-2043
Million tons of carbon (note, not CO2 equivalent)



Source: IFS 8.22 Initialising from Carbon Dioxide Information Analysis Center data

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

In 2023, ECCAS emitted a total of 23 million tons of carbon from fossil fuels. Among the RECs, ECCAS recorded the second-lowest emissions, following only the EAC. Among member countries, Angola was the highest emitter of carbon (8 million tons: 34.8% of total emissions). It was followed by Equatorial Guinea (4.8 million tons: 20.9% of total emissions) and Cameroon (3 million tons: 13% of total emissions).

By 2043, total carbon emissions will have more than quintupled to 85 million tons in the Current Path. In the Combined scenario, the region will emit 110 million tons of carbon by 2043, which is 29.4% above the Current Path.

The AfCFTA, Manufacturing and Governance scenarios are the most carbon-intensive primarily due to their potential to stimulate economic growth and industrialization. These factors can lead to increased energy consumption, particularly from fossil fuels, resulting in higher carbon emissions. The AfCFTA, for example, could increase trade and economic activity, leading to higher demand for transportation and industrial production. Manufacturing, by its nature, often involves energy-intensive processes. While good governance can promote sustainable development, it may also lead to increased economic activity and associated emissions if not accompanied by effective environmental policies. The Demographics and Health, Education and the Financial Flows scenarios are the least carbon-intensive. In the Combined scenario, Angola will be the largest carbon emitter, releasing 33 million tons, followed by DR Congo with 30 million tons. At the other end of the spectrum, São Tomé and Príncipe will emit the least, with only 200 000 tons, followed by the Central African Republic at 900 000 tons.

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

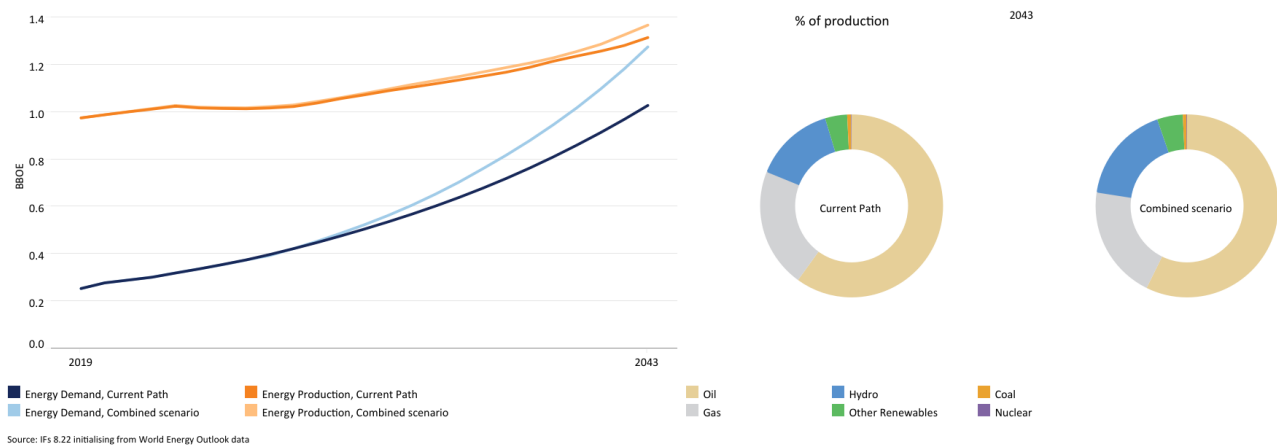


Chart 37 compares energy production from 2019 to 2043 in the Current Path with the Combined scenario in six types, namely oil, gas, coal, hydro, nuclear and other renewables. The data is converted into billion barrels of oil equivalent (BOE) to allow for comparisons between different sources. Note that energy production could be for domestic use or export.

In 2023, ECCAS produced 790 million barrels of oil equivalent (BOE), including 186 million BOE of gas, 7 million BOE of coal, 50 million BOE of hydropower, 300 000 BOE of nuclear energy, and 3 million BOE of other renewable sources. Angola emerged as the largest oil producer, generating 406 million BOE, with the Republic of Congo following at 116 million BOE. Angola also led in gas production with 84 million BOE, while Cameroon followed with 37 million BOE. DR Congo was the top producer of hydro energy at 32 million BOE and also led in other renewables, producing 1 million BOE. Additionally, Equatorial Guinea was the leading producer of coal, contributing 4.5 million BOE. There is a lack of nuclear energy data in the ECCAS region, which can be attributed to economic priorities, technological and expertise gaps, regulatory and safety concerns, political instability, and a regional energy mix that relies on traditional sources. Nevertheless, some member states are making strides toward nuclear development. Rwanda, for instance, is actively pursuing **nuclear development** through collaborations with Dual Fluid and internal initiatives. The country aims to establish a demonstration nuclear reactor by 2026 and is conducting feasibility studies for a nuclear research reactor and a nuclear power program, with key milestones set for 2024. Similarly, Burundi is taking steps to pursue nuclear development, having established its first Country Programme **Framework** with the International Atomic Energy Agency in 2016. To strengthen its nuclear capabilities, Burundi's Ministry of Foreign Affairs introduced a legislative framework in 2019, detailing regulations for the peaceful use, safety and security of nuclear energy and ionising radiation.

Under the Combined scenario, ECCAS will produce 792 million BOE by 2043, exceeding the Current Path by 3 million BOE. Gas production will reach 275 million BOE, 4 million BOE below the Current Path. Coal production will be 10 million BOE, 1 million BOE less than the Current Path. Hydropower generation will increase to 246 million BOE, surpassing the Current Path by 60 million BOE. Nuclear energy production will reach 1.2 million BOE, 200 000 BOE more than the Current Path. Finally, other renewable sources will produce 58 million BOE, 7 million BOE more than the Current Path. Angola is set to be the largest producer of oil, with an output of 251 million BOE. The DR Congo will lead in hydro production, generating 175 million BOE. Additionally, Angola will be the top producer of gas at 133 million BOE and will also excel in producing other renewables, reaching 19 million BOE. Equatorial Guinea will take the lead in coal production with 6.3 million BOE, while Burundi will be the largest producer of nuclear energy, generating 400 000 BOE.

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Ms Tumi Mkhize-Malebo joined the ISS in May 2023 as an AFI intern and is now Junior Research Officer. Before that, Tumi worked as an operations intern at Uber. She holds a Bachelor's degree in economics and econometrics from the University of Johannesburg and is a graduand set to complete her Honours degree in economics from the University of South Africa.

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