

# Sub-Saharan Africa

Sub-Saharan Africa: Current Path

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· Sub-Saharan Africa: Current Path forecast

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• Economics: Current Path

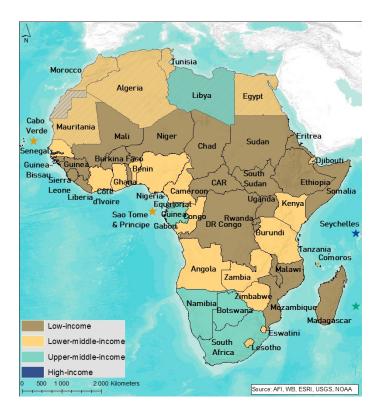
Poverty: Current Path

Carbon Emissions/Energy: Current Path



## Sub-Saharan Africa: Current Path forecast

Chart 1: Political map of Sub-Saharan Africa



Source: African Futures

This page provides an overview of the key characteristics of sub-Saharan Africa 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.

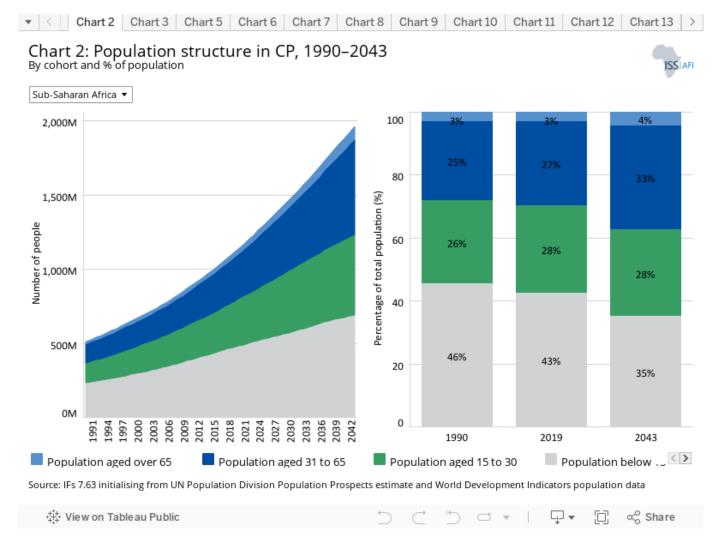
Sub-Saharan Africa is geographically the area of the African continent that lies south of the Sahara Desert. It consists of 48 countries of 23 low-income countries, 18 lower middle-income countries, six upper middle-income countries, and one high-income economy (the island state of Seychelles).

Within the regions used in this report, sub-Saharan Africa includes Southern, West, Central and East Africa, and excludes

North Africa. Most of the subcontinent lies within the tropical climate, with 70% between the Tropic of Cancer and Tropic of Capricorn. Average temperatures are around 18 °C year round, except in the cooler upland zones and temperate Southern tip.

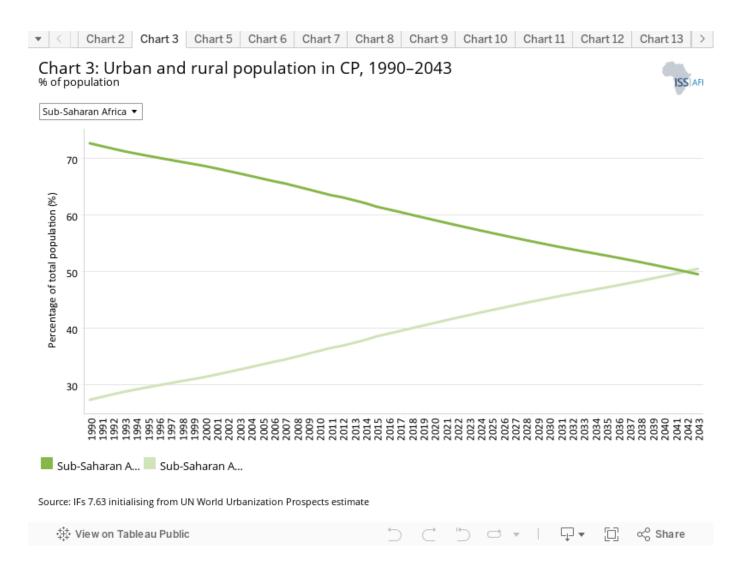
Seven of the eight regional economic organisations recognised by the African Union (AU) have members in sub-Saharan Africa: Economic Community of West African States (ECOWAS), Economic Community of Central African States (ECCAS), Common Market for Eastern and Southern Africa (COMESA), Community of Sahel-Saharan States (CEN-SAD), East African Community (EAC), Southern African Development Community (SADC), and Intergovernmental Authority on Development (IGAD). Membership to these organisations is not mutually exclusive and some states have multiple memberships.





Sub-Saharan Africa had a population of 1.106 billion people in 2019 — a 117.77% increase from 1990. In the Current Path forecast, it will further grow by 77.38% to 1.962 billion in 2043. The most populous countries in 2019 were Nigeria (203.8 million), Ethiopia (112.1 million), the Democratic Republic of the Congo (DR Congo) (86.9 million), South Africa (58.3 million) and Tanzania (58.1 million). The region has a young population. The cohort under 15 years of age is large at 43% and the under 30 cohort is at 28%. The median age in sub-Saharan Africa was 18.74 in 2019 and is expected to rise to 22.82 years in 2043 due to falling fertility rates and better healthcare.

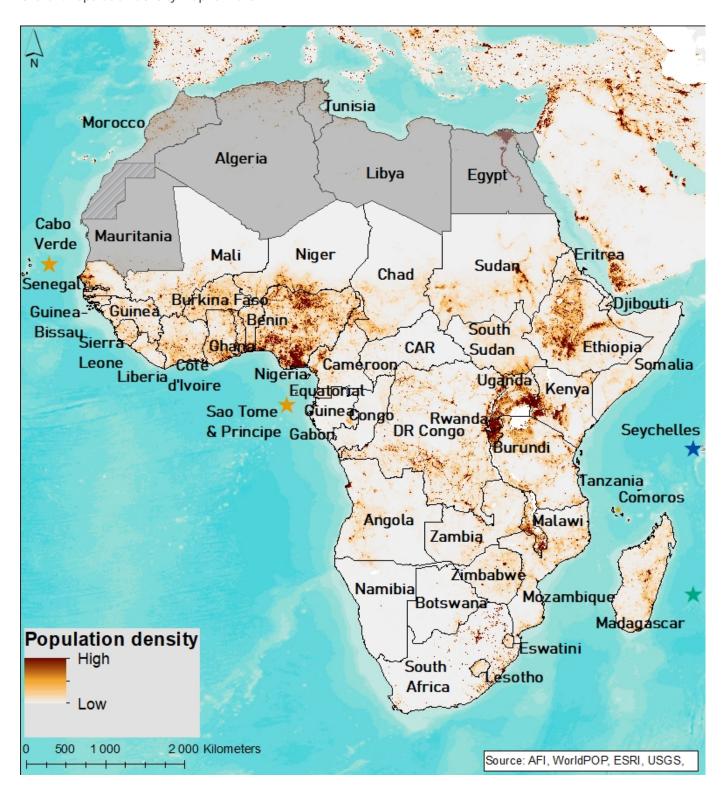
As the fertility rate declines to 3.3 births per fertile woman, the under 15 group will decline to 34.8% while the elderly population (65 years and older) will grow by 1.5 percentage points to 57 million people in 2043, increasing the average life expectancy to 71.3 years.



Sub-Saharan Africa is predominantly rural with more than half the population of 31 out of its 48 countries living in rural areas, representing an average urbanisation rate of only 40.4 % in 2019. By 2043, 50.5% of sub-Saharan Africa's population will live in urban areas and only 22 countries in the region will still be predominantly rural. At that point, the number of people living in urban areas will have more than doubled from 449 million in 2019 to 998 million.

The rapid increase in the urban population size is due to the natural population growth of existing urban settlements, reclassification of rural settlements to urban settlements and rural-urban migration. In contrast to other regions, the main drivers of rural-urban migration are dissatisfaction with public services in rural areas, changing weather patterns, land pressures, natural disasters and conflict.

Chart 4: Population density map for 2019



Source: African Futures

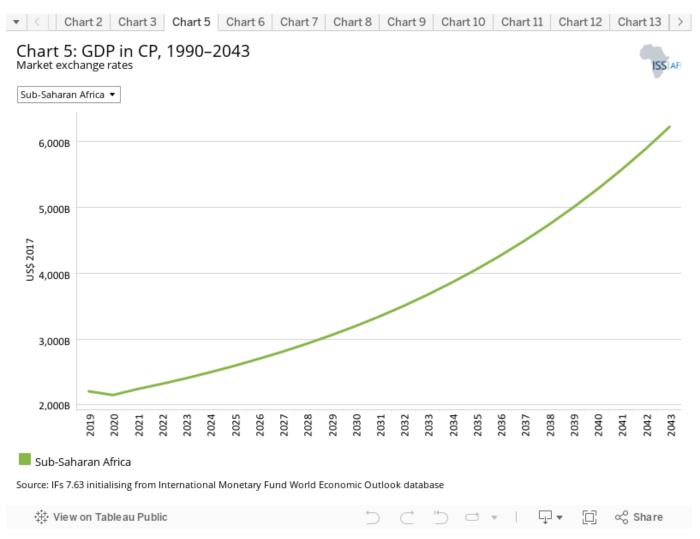
In 2019, one-quarter of sub-Saharan Africa's population lived in Nigeria and Ethiopia combined. Population density is highest in Mauritius at 6 259 people per hectare, Rwanda (at 5 113) and Comoros (at 4 602) and lowest in Mauritania at 44 people per hectare, Botswana (41) and Namibia (31).

The combined GDP of sub-Saharan Africa has nearly tripled from US\$777.2 billion in 1990 to US\$2 162.6 billion in 2019. The largest economies in 2019 were Nigeria (US\$50.7 billion) and South Africa (US\$503.69 billion), collectively constituting

49% of the GDP of sub-Saharan Africa. By 2043, their contribution will drop to 40% due to rapid economic growth in the size of the economies of Ethiopia, Angola, Tanzania, Uganda and Kenya. The three countries that will experience the most rapid economic growth by 2043 are Malawi, Ethiopia and Guinea Bissau, while Mauritius, South Africa and Seychelles, all coming off a much higher base, will grow the slowest.

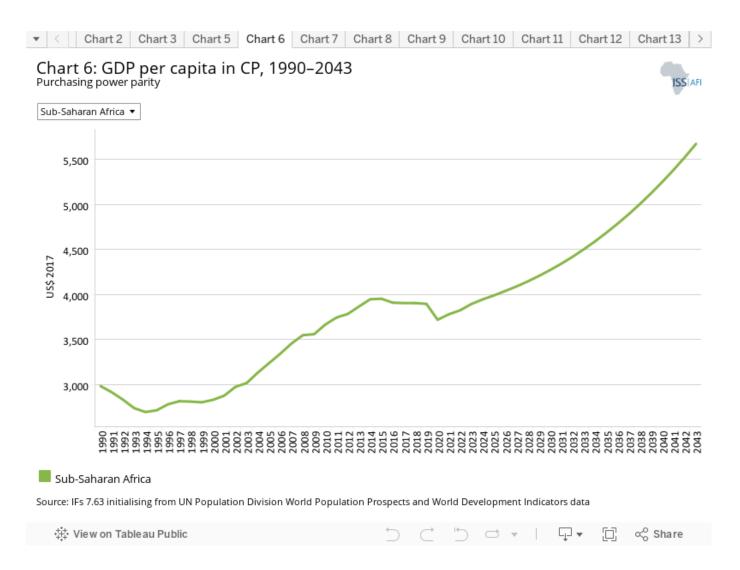
Rapid economic growth in sub-Saharan Africa has been driven by large private and public investments. The past decade has seen an increasing number of Chinese infrastructure investments across the region which have helped spur economic growth significantly. In the Current Path forecast, GDP of the region will increase to US\$6 760.2 billion in 2043.





The combined GDP of sub-Saharan Africa has nearly tripled from US\$777.2 billion in 1990 to US\$2 207.3 billion in 2019. The largest economies in 2019 were Nigeria (US\$560.7 billion) and South Africa (US\$503.7 billion), collectively constituting 49% of the GDP of sub-Saharan Africa. By 2043, their contribution will drop to 43% due to rapid economic growth in the size of the economies of Ethiopia, Angola, Tanzania, Uganda and Kenya. The three countries that will experience the most rapid economic growth by 2043 are Malawi, Ethiopia and Guinea Bissau, while Mauritius, South Africa and Seychelles, all coming off a much higher base, will grow the slowest.

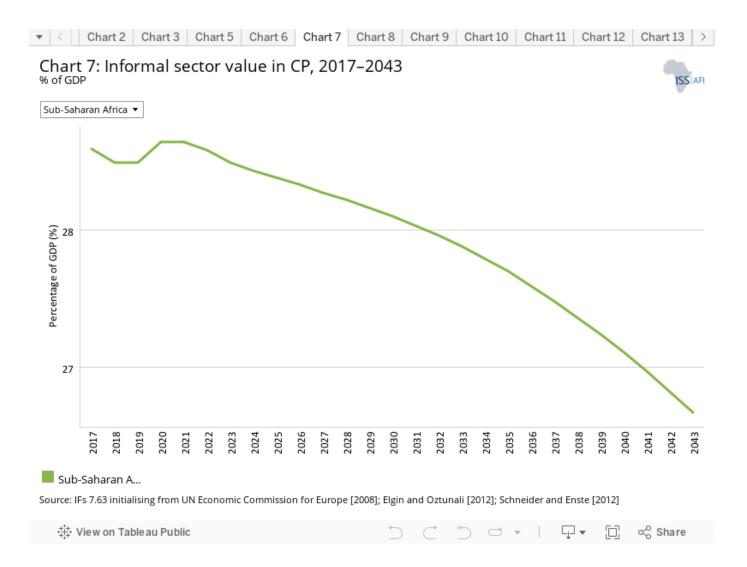
Rapid economic growth in sub-Saharan Africa has been driven by large private and public investments. The past decade has seen an increasing number of Chinese infrastructure investments across the region which have helped spur economic growth significantly. In the Current Path forecast, GDP of the region will increase to US\$6 221.7 billion in 2043.



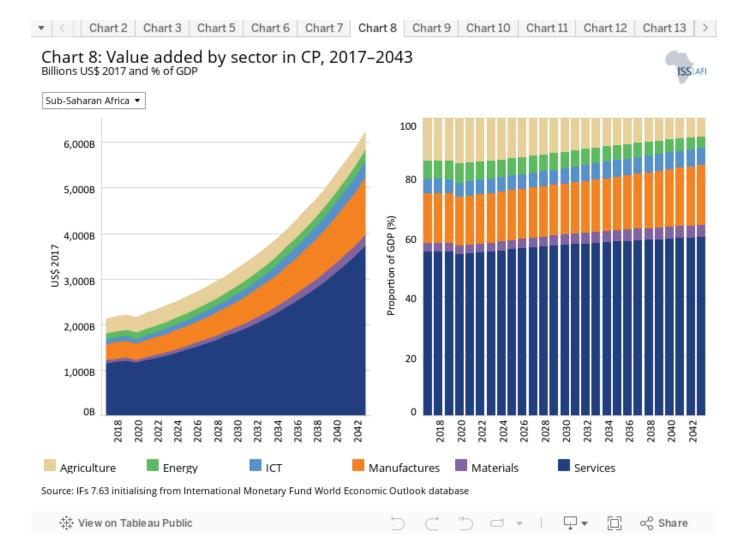
Although many of the charts in the sectoral scenarios also include GDP per capita, this overview is an essential point of departure for interpreting the general economic outlook of sub-Saharan Africa.

Despite GDP nearly tripling between 1990 and 2019, GDP per capita has only grown by 31% due to rapid population growth. At US\$3 897 in 2019, sub-Saharan Africa's average GDP per capita was two-thirds of Africa's average per capita GDP in 2019, when the GDP per capita ranged from US\$30 673 in Seychelles to US\$711 in Burundi.

The sustained growth in GDP per capita in sub-Saharan Africa was fuelled by both productivity growth as more and better infrastructure was built, and increased commodity exports. In the Current Path forecast, the average GDP per capita will grow by 45% from 2019 to US\$5 671 in 2043.



Estimates on the contribution of the informal sector to GDP in 2019 range from 52.8% in Zimbabwe to 8.6% in Mauritius with the average level of informality of sub-Saharan Africa at 28.5%. By 2043, the informal sector will decline to 26.7% and reach a low of 3.9% in Mauritius, while in Tanzania it is expected to decline to 35.8%, respectively, while the average of the informal sector in sub-Saharan Africa will decline to 26.85%. In the same vein, the size of the labour force in the informal sector stood at 60% in 2019 and will only marginally decline to 54% in 2043.



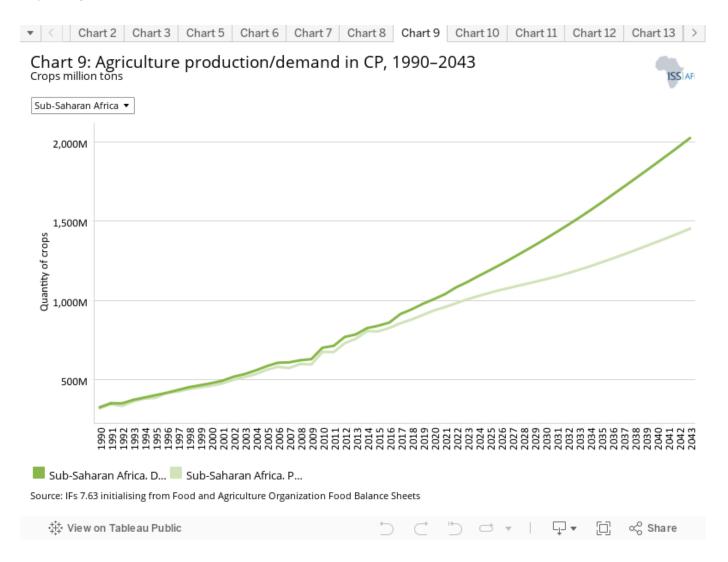
The IFs platform uses data from the Global Trade and Analysis Project (GTAP) to classify economic activity into six sectors: agriculture, energy, materials (including mining), manufacturing, service and information and communication technologies (ICT). Most other sources use a threefold distinction between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

Generally, the service sector dominates in sub-Saharan Africa; it accounted for 54.9% (US\$1 213.2 billion) of GDP in 2019 and will increase to 59.8% in 2043 (US\$3 724.5). The economies with the largest service sectors in the region are Seychelles (76%), São Tomé and Príncipe (71%), and Mauritius (70%), while the least service-oriented economies are the resource-rich countries of the DR Congo (30%) and South Sudan (31%). Compared to South Asia, sub-Saharan Africa has a greater share of services at 6.5 and 5.5 percentage points higher in 2019 and 2043, respectively, as a result of its relatively low level of industrialisation.

In the Current Path forecast, the manufacturing sector overtakes the agriculture sector in its contribution to GDP from 2025. By 2043, agriculture contributes 6.3% to GDP and manufacturing 20.06%. The contribution from manufacturing to GDP is largest in Eswatini (35%), Côte d'Ivoire (25.9%) and Gabon (25%), while the share of manufacturing in Rwanda, Liberia and South Sudan is less than 5%. Then most agrarian economies are Chad and Sierra Leone with more than 40% of the GDP from the agriculture sector, unlike South Africa, Mauritius, Seychelles, Botswana with <5% from agriculture.

Materials share of GDP will increase marginally from 3.1% in 2019 to 4.3% in 2043, while manufacturing will increase by 0.9 percentage points from 2019 to 2043. The ICT sector will increase to 3.9% from 2.8% during the same period. All sectors will increase their share of GDP between 2019 and 2043 except agriculture which will shrink from 17% to 7.3%,

respectively.

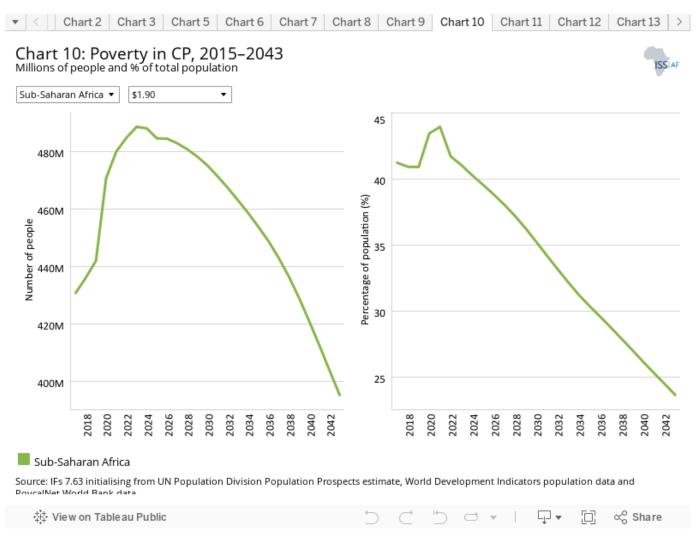


The data on agricultural production and demand in the IFs forecasting platform initialises from data provided on food balances by the Food and Agriculture Organization (FAO). IFs contains data on numerous types of agriculture but aggregates its forecast into crops, meat and fish, presented in million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

In 2019, total agricultural demand exceeded production by 70.3 million metric tons — a gap that is expected to increase to 572 million metric tons by 2043. The sub-Saharan Africa region will, therefore, become increasingly food insecure, not only because of poor domestic production but also because of changes in dietary preferences.

Excess crop demand forms the greatest component of total excess food demand despite crops constituting 93% and 87% of total food production in 2019 and 2043, respectively. The greatest crop producers in 2019 were Nigeria (212.8 million metric tons), Ethiopia (57.1 million metric tons), the DR Congo (51.5 million metric tons) and Tanzania (51.2 million metric tons). Nigeria, Uganda and South Africa produce the greatest amounts of fish; the greatest meat producers are South Africa, Kenya and Ethiopia.





There are numerous methodologies for 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 per day (in 2011 international prices), also used to measure progress towards the achievement of Sustainable Development Goal (SDG) 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.

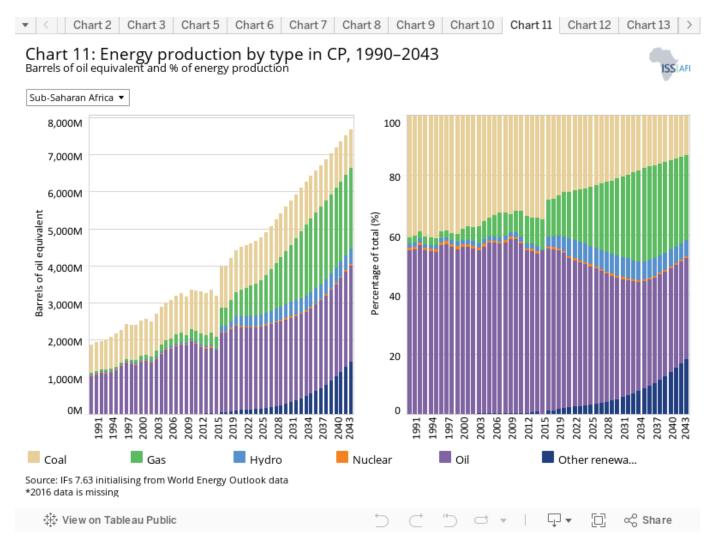
In 2019, nearly all (99.5%) of Africa's extremely poor people live in sub-Saharan Africa, with 31 percentage points more poverty compared to South Asia. Because of its high rates of population growth and relatively slow economic growth, the number of extremely poor people (at US\$1.90 per day) in the region will decrease from 441.9 million in 2019 to 395.2 million in 2043, although the poverty rate will decline significantly from 40.9% in 2019 to 23.7% in 2043. In 2019, the

countries with the highest prevalence of poverty (at US\$1.90 per day) in the region were Equatorial Guinea (83.2%), South Sudan (79.4%), Burundi (76.7%) and Central Africa Republic (73.9%), while those with the lowest poverty rates were Mauritius (1%) and Seychelles (1.3%).

Poverty will continue to be a problem in sub-Saharan Africa as a result of a host of issues including poor governance, weak institutional development, rapid population growth and high inequality in some quarters. With high inequality, as in South Africa, even sustained high rates of economic growth will only slowly translate into a reduction in poverty. The dynamics of high population growth and unemployment have played into the worsening of extreme poverty in Africa.



## Carbon Emissions/Energy: Current Path

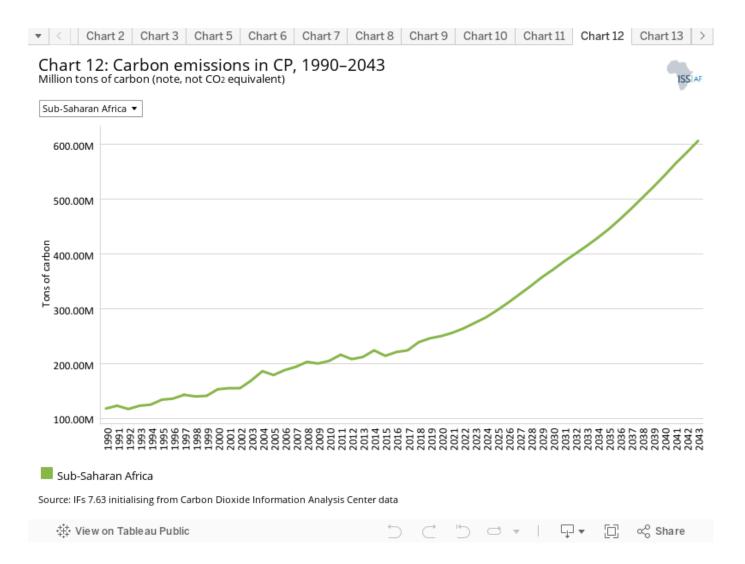


The IFs platform forecasts six types of energy, namely oil, gas, coal, hydro, nuclear and other renewables. To allow comparisons between different types of energy, the data is converted into billion barrels of oil equivalent (BBOE). The energy contained in a barrel of oil is approximately 5.8 million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

Energy production in sub-Saharan Africa will increase by 3.483 billion BBOE from 2019 to 2043. In 2019, the largest type of energy produced was oil (52.98%), followed by coal (27.01%) and gas (13.53%). Hydro and other renewable energy sources combined only contributed 6.48%.

Energy production in sub-Saharan Africa will shift away from traditional sources of energy (oil and coal) towards renewable energy such as hydro, wind and solar.

The largest oil producers are Nigeria (0.844 BBOE), Angola (0.648 BBOE) and South Sudan (0.106BBOE), while Nigeria (0.416 BBOE), Mozambique (0.035 BBOE) and Tanzania (0.03 BBOE). The traditional producers of coal are South Africa (1.046 BBOE), Mozambique (0.32 BBOE) and Zimbabwe (0.032 BBOE). Hydroelectricity producers are mainly Ethiopia (0.085 BBOA), Zambia (0.022 BBOE), the Republic of the Congo (0.013 BBOE) and Ghana (0.01 BBOE).



Carbon is released in many ways, but the three most important contributors to greenhouse gases are carbon dioxide ( $CO_2$ ), carbon monoxide ( $CO_3$ ) and methane ( $CH_4$ ). Since each has a different molecular weight, IFs uses carbon. Many other sites and calculations use  $CO_2$  equivalent.

Carbon emissions will steadily increase in sub-Saharan Africa from 246 million metric tons in 2019 to 606 million tons in 2043 — more than 146% increase — due to rising economic activity and the surge in non-renewable energy production.

The largest emitters in the region are South Africa (132.1 million tons of carbon) — owing to its relatively high level of industrialisation — and the major oil producers Nigeria (39.3 million tons of carbon), Angola (12 million tons of carbon) and Sudan (6.5 million tons of carbon). By 2043, Nigeria will become the greatest emitter of carbon emissions in the region, overtaking South Africa. Due to the relatively low level of economic activity and industrialisation, sub-Saharan Africa contributed only 2.6% of world's emission in 2019, which will increase to 6.2% in 2043.

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## About the authors

Mustapha Jobarteh joined the ISS in January 2022 as a Senior Researcher in the African Futures and Innovation programme in Pretoria. Before joining ISS, Mustapha was a senior lecturer and Head of the Department of Economics and Finance at the University of the Gambia and a research fellow with the Center for Policy, Research and Strategic Studies. His interests include macroeconomics, international trade and econometric modelling. Mustapha has a PhD in economics from Istanbul Medeniyet
University, Istanbul, Turkey.

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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.

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