

Africa

Africa: Current Path

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• Africa: Current Path forecast

• Demographics: Current Path

• Economics: Current Path

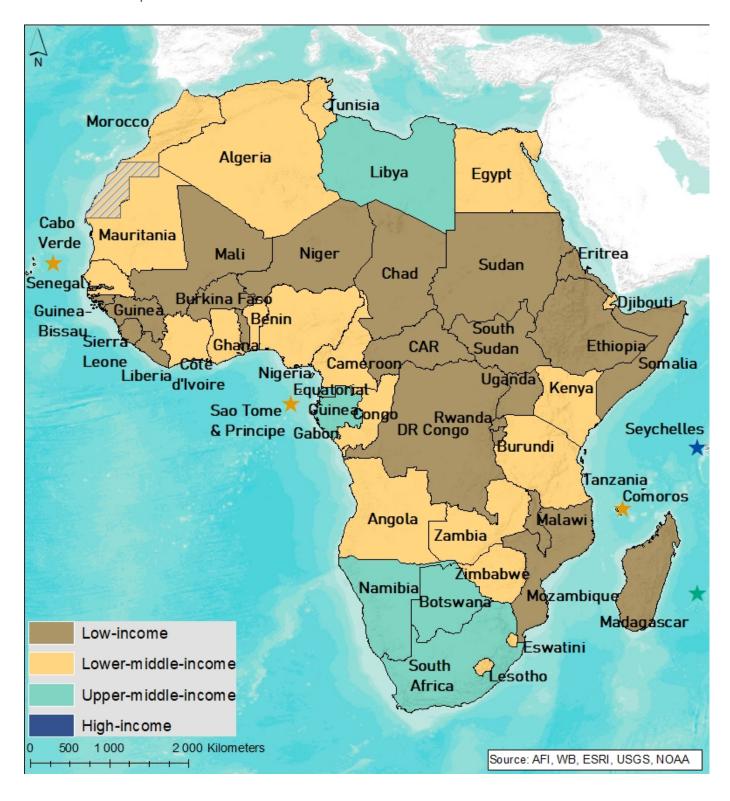
Poverty: Current Path

• Carbon Emissions/Energy: Current Path



Africa: Current Path forecast

Chart 1: Political map of Africa



This page provides an overview of the key characteristics of 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.

Africa has population of 1.3 billion people, with Nigeria (203.8 million), Ethiopia (112 million) and Egypt (100.5 million) the most populous countries in 2019. In 2019, the under-15 population formed 40.4% of the population; by 2043 this figure falls to 30.4%. The continent comprises 54 countries, of which 46 countries are classified as sub-Saharan Africa Jump to SSA report, excluding Algeria, Djibouti, Egypt, Libya, Morocco, Somalia, Sudan and Tunisia. Africa has 23 low-income countries Jump to Low-income Africa, 23 lower middle-income countries Jump to Middle-income Africa, seven upper middle-income countries Jump to Upper middle-income Africa, and one high-income country Jump to Seychelles. The region has 13 small states that have a small population and land area, with limited human capital.

Africa has a large number of regional economic communities, but the African Union recognises only eight, namely the Economic Community of West African States (ECOWAS) Jump to West Africa/ECOWAS; the Economic Community Of Central African States (ECCAS) Jump to ECCAS; the Common Market for Eastern and Southern Africa (COMESA) Jump to COMESA; the East African Community (EAC) Jump to East Africa; the Arab Maghreb Union (AMU) Jump to AMU; the Southern African Development Community (SADC) Jump to SADC; the Community of Sahel Saharan States (CEN-SAD) Jump to sub-Sahara Africa; and Intergovernmental Authority and Development (IGAD) Jump to IGAD. Membership to these organisations is not mutually exclusive, and some states have multiple memberships in these organisations.

Most of the continent lies within tropical regions. The climate ranges from hot deserts to icy glaciers, and from rainforests to grassy plains. The equator cuts across Africa, making it the world's most tropical continent with only its northern edge and southern tip outside the tropics. There is symmetry at the equator, with half of the continent lying north and half lying south of the equator. In the centre of the continent is a wet tropical climate, characterised by heavy rainfall. Beyond that are belts of tropical climate with longer dry periods and occasional droughts, such as in the Sahel. To the north of the Sahel is the Sahara Desert that has little to no rainfall. However, further south, cool and moist air masses from the ocean moving inland bring summer rainfall to the Kalahari Desert. On the north and south of the desert regions are belts of Mediterranean climate, characterised by hot dry summers and moist winters.

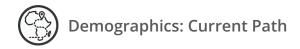
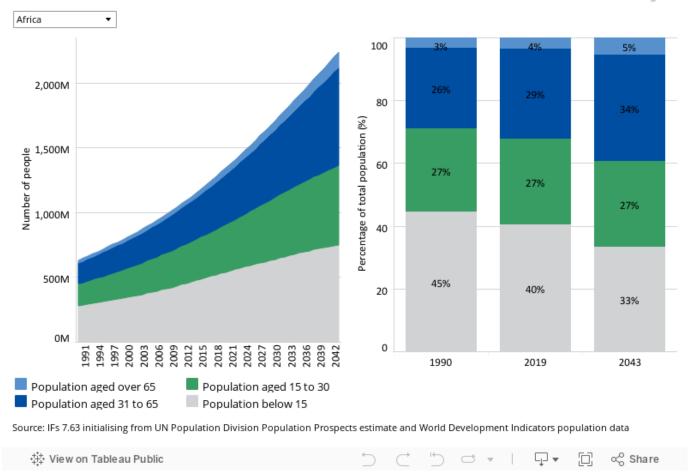


Chart 2: Population structure in CP, 1990–2043

By cohort and % of population



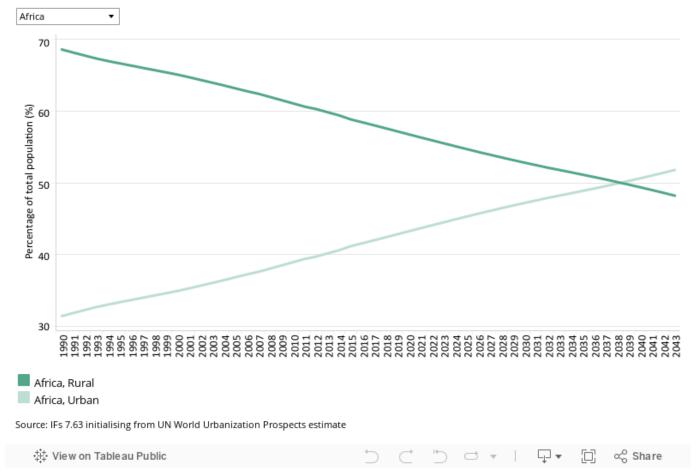


In 2019, the population of Africa was 1.342 billion people, and in 2043 it will rise to 2.24 billion people, an increase of 898 million people. This amounts to a population increase of 66.9% over the next two decades. Whereas Africa represented 17% of the world population in 2019, in 2043 it will constitute 24%.

Africa is a youthful continent: the median age was 19.98 years in 2019, and it will increase to 23.89 by 2043. Fertility rates are expected to fall from 4.5 live births per woman in 2019 to 3.2 in 2043. Life expectancy is low at 65.1 years in 2016 due to a very high disease burden, particularly as a result of communicable diseases and increasingly also from non-communicable diseases, low access to improved sanitation and a high dependency on subsistence farming which results in low food security. As the disease burden subsides and access to improved sanitation increases, the life expectancy is expected to improve to 72.1 years in 2043. Whereas the gap in life expectancy between Africa and the rest of the world was 8.9 years in 2019, in 2043 it will have declined to 6 years.

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





Although urbanisation has been steadily increasing in Africa, at 31.4% in 1990 and 42.8% in 2019, Africa's population is predominantly rural, with rates ranging from 87% rural in Burundi to below 10% in Gabon in 2019. The continent has the lowest urbanisation rate (43.8%) when compared to South Asia (49.4%) and South America (84.2%) or even the global average (55.39%) in 2019.

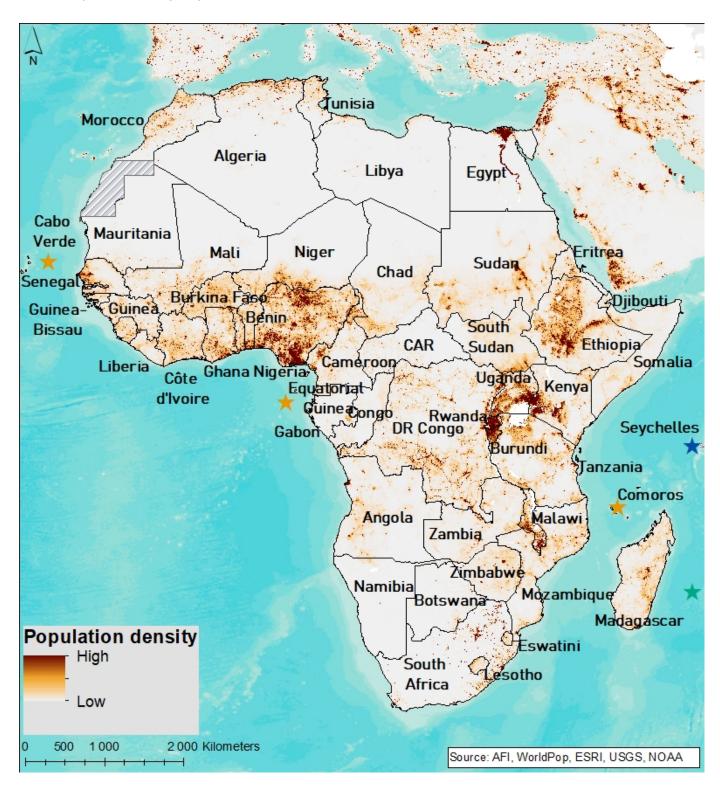
By 2043, 51.8% of Africans will live in urban areas, ranging from 92% in Gabon to 18.7% in Niger. At that point, the global average will be 62.8%. North Africa was the most urban (at 55.9%) and East Africa/the Horn the least (at 26.8%) in 2019. Rates of urban population growth are particularly high in West Africa.

Notwithstanding, the continent recorded a fast urbanisation rate from 1990 to 2019 at 36.27%, above the average world urbanisation rate (30.69%) and below South Asia's rate of urbanisation. Although the rapid growth in urbanisation is caused by the natural increase in towns and re-classification of settlements into urban areas, rural–urban migration [1] is a significant driver of urbanisation. In Africa, people primarily move from rural to urban areas due to 'push factors' such as lack of employment opportunities, extreme rural poverty, climate-related disasters in rural areas, and wars. Compared to the history of other regions, 'pull factors', such as a chance to find employment in urban industrial and service sectors and better access to medical and education services, are less prominent in Africa. Very often the rural–urban shift is from subsistence farming in rural areas to the informal sector in informal, urban areas.

As the interplay between the 'pull' and 'push' factors for rural-urban migration continues, the urbanisation rate in Africa will grow by 20.92 percentage points between 2019 and 2043, above the average growth in world urbanisation.

The relatively low urbanisation in Africa compared to other continents is partly because of the continent's low levels of industrialisation. Africa also has the fewest connections to global value chains and international trade.

Chart 4: Population density map for 2019



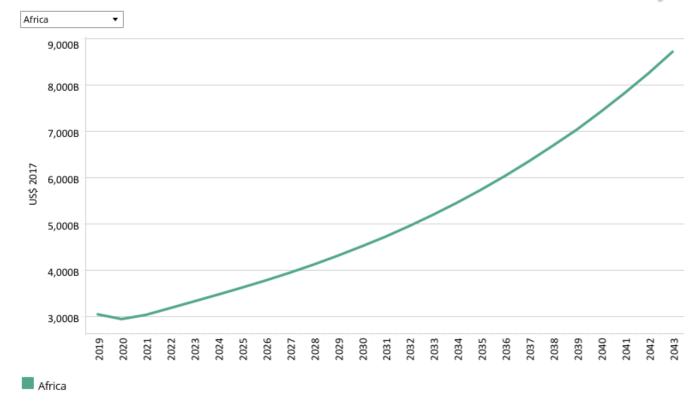
As the second most densely populated continent in the world next to Asia, Africa's most densely populated countries are generally in West Africa (Nigeria, Benin, Burkina Faso, Ghana and Togo) and in East Africa (Uganda, Ethiopia, Kenya and

Burundi). The least densely populated countries are in the Sahel region (Mali, Mauritania, Niger, Chad, Sudan, Libya, Algeria and Egypt), mainly due to unfavourable weather conditions, and in the Southern African countries of Namibia and Botswana. One-third of the continent's population live in Nigeria, Ethiopia and Egypt alone.









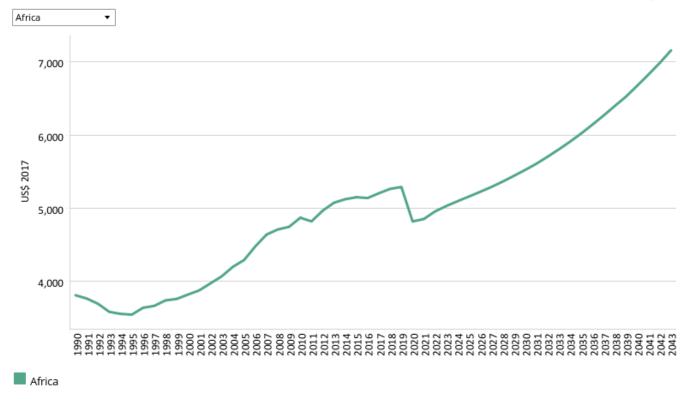
Source: IFs 7.63 initialising from International Monetary Fund World Economic Outlook database



The GDP in Africa has grown substantially from US\$1 132.5 billion in 1990 to US\$3 055.3 billion in 2019. By 2043, Africa's GDP will grow to US\$8 724.4 billion with GDP growth rates of 5.5% and 5.6% in 2042 and 2043 respectively. Such impressive growth is, however, largely a function of population growth although towards the end of the forecast horizon Africa is closer to entering into a demographic dividend window of opportunity. The adoption of new technologies and greater integration into the world economy and value chains will also help to propel growth. This growth aside, the African economy remains very small as a portion of the global economy. It constituted 2.5% of the global economy in 1990, 3.1% in 2019 and will constitute 5.2% in 2043, despite having 24% of the world's population by then.







Source: IFs 7.63 initialising from UN Population Division World Population Prospects and World Development Indicators data



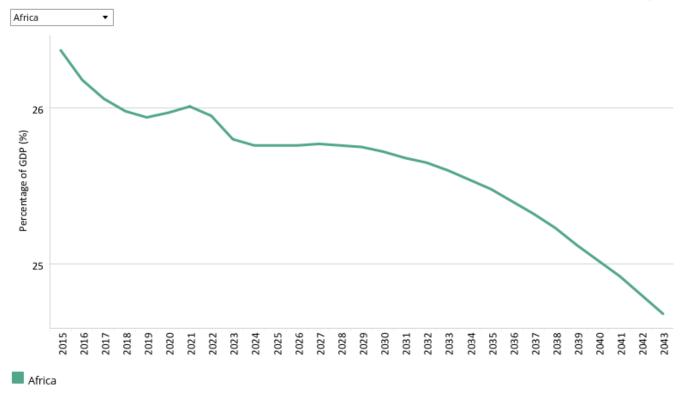
Although many of the charts in the sectoral scenarios also include GDP per capita, this overview is an essential point of departure for interpreting the general economic outlook of Africa.

The GDP per capita generally has a positive trend, rising from US\$3 808 in 1990 to US\$5 289 in 2019; it is forecast to reach over US\$7 100 by 2043, representing a 35.3% growth from 2019. Notwithstanding, the GDP per capita dipped during the period 1990 to 1995, during the great recession of 2010/11, and during the start of the COVID-19 pandemic in 2019/20.

In 1990, Africa's GDP per capita was 39% of the global average. In 2019, it was 30%, and in the Current Path forecast it will get to 32% in 2043, indicating a turn-around in the trend that has seen the GDP per capita in Africa generally fall further behind growth in global averages.

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





Source: IFs 7.63 initialising from UN Economic Commission for Europe [2008]; Elgin and Oztunali [2012]; Schneider and Enste [2012]



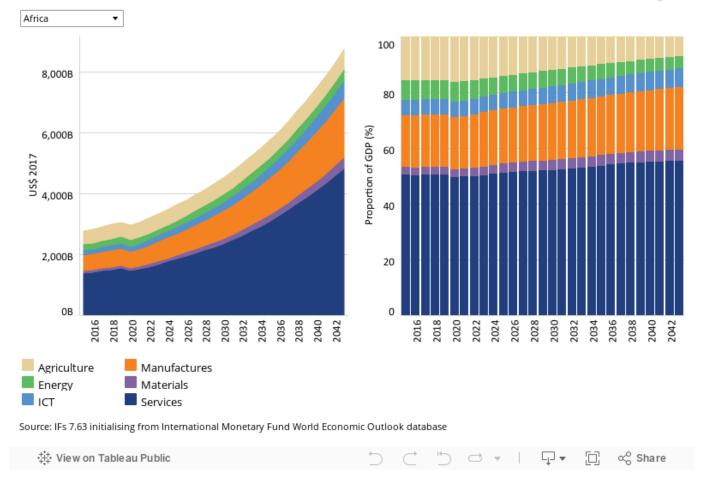
A quarter of the African economy was in the informal sector, representing 25.94% of GDP, 2019. On this metric, the African economy has a much larger informal sector than other regions, translating into low revenue contributions and lowering productivity. For example, the contribution to GDP from the informal sector in South America in 2019 was only 13.7%. In the Current Path forecast, the size of the informal sector in Africa will marginally drop to 24.68% of GDP in 2043. The large share of the labour force will continue to operate in subsistence agriculture in rural Africa with the large dependency ratio across the region over time.

A similar picture emerges when looking at the size of the total labour force active in the informal sector, which was 57.8% in 2019 — almost 20 percentage points above the average for the rest of the world. Only South Asia has a larger portion of its labour force employed in the informal sector.

There are almost 13 percentage points more females in the informal sector in Africa than males.

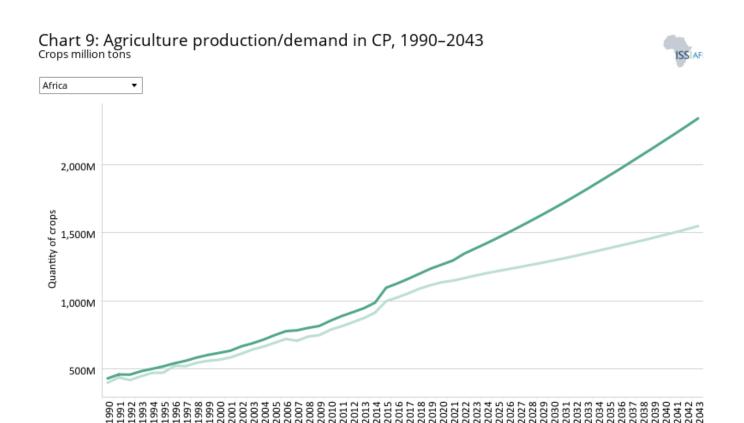
Chart 8: Value added by sector in CP, 2015–2043
Billions US\$ 2017 and % of GDP





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.

The service sector is the most dominant in Africa, accounting for 50.3% (US\$1394.11 billion) of Africa's GDP in 2015. The contribution of the service sector is expected to grow to 55.4% (US\$4 833.06 billion) in 2043. In 2019, the manufacturing sector contributed 18.5% (US\$512.41 billion) to African GDP and will grow to 22.3% (US\$1 946.74 billion) in 2043 in the Current Path forecast. While the service and manufacturing sectors are expected to grow, the relative importance of agriculture is expected to halve from 15.7% in 2015 to 7.1% in 2043, although, in absolute terms, the sector will have increased in size from US\$476 billion in 2019 to US\$621.8 billion in 2043. The dominance of the service sector and the low levels of the manufacturing sector reflect Africa's current development trajectory. The impact of industrialisation and intra-Africa trade are examined in the Manufacturing/Transfers and Free Trade scenarios. What is striking though is the extent to which the contribution of Africa's manufacturing sector is significantly lower than that of South Asia and global averages. Historically, the manufacturing sector and international trade have been the foundation of more rapid economic growth, and Africa lags on both accounts.





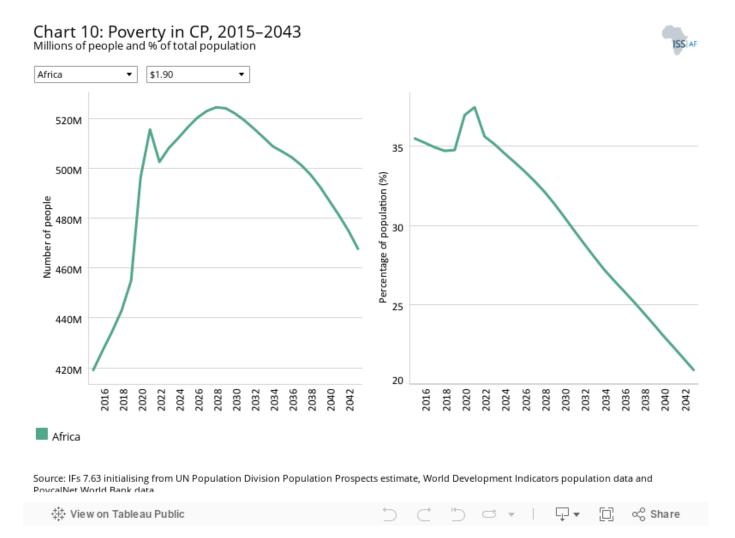
Africa, Demand



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.

Agriculture contributed 15.6% to GDP in Africa in 2019, however, it is set to decline to 7.1% in 2043. Africa's yields per hectare are significantly lower than global averages. Hence, in spite of its large contribution to the African economy, the gap between agriculture production and demand is set to grow from 121.1 million metric tons in 2019 to 791 million metric tons in 2043. This means that food security will continue to grow as population growth accelerates and consumption patterns change. Unlike Africa, South America, with its much smaller agriculture sector as a per cent of GDP is food secure, while demand and production will largely keep pace in South Asia, the other two comparable developing regions.





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 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.

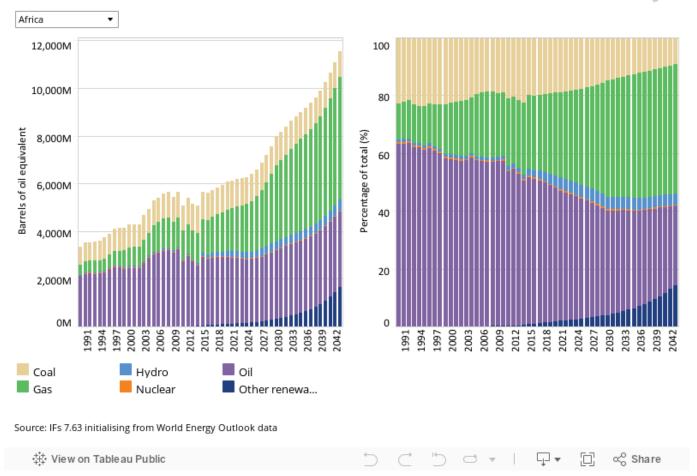
Poverty in Africa is significantly higher than in other regions. Generally, poverty rates drop slightly between 2015 and 2019 from 35.5% to 34.8%. In 2019, 454.9 million Africans survived on less than US\$1.90 per day. However, due to the COVID-19 pandemic, average poverty increased by 3 percentage points between 2019 and 2021, and thereafter again starts to slowly decline to 20.9% in 2043, equivalent to 467.8 million people. Whereas extreme poverty will largely have been eliminated in the rest of the world by 2030, Africa will then have close to 31% (or 522 million people) of its population still living in extreme poverty.

By comparison, in South America and South Asia, the 2019 extreme poverty rates were 6.1% and 9.7%, respectively.



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





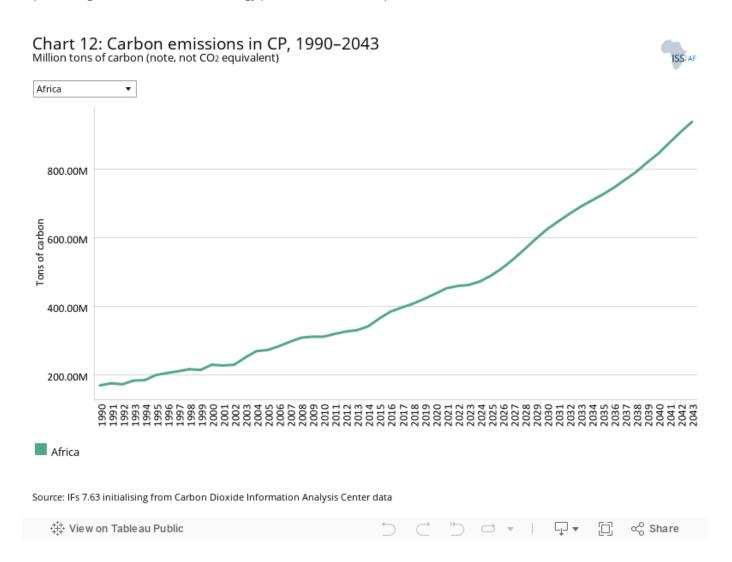
The IFs platform forecasts six types of energy, namely oil, gas, coal, hydro, nuclear and other renewables. To allow comparisons between different types of energy, the data is converted into billion barrels of oil equivalent (BBOE). The energy contained in a barrel of oil is approximately 5.8 million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

Oil accounted for almost half (2.80 BBOE) of Africa's energy production in 2019, much of which draws from big oil producers such as Nigeria, Angola, Algeria, Egypt, Libya, South Sudan, the Republic of the Congo, Gabon, Sudan and Equatorial Guinea. The continent's reliance on oil as the main source of energy is declining and, in 2029, gas production (in BBOE) will overtake oil production to the extent that in 2043 oil will account for only 27.5% of energy production whereas gas will account for 44.7%. Gas only accounted for 27.8% of energy production in 2019 (Algeria and Nigeria were the largest producers in 2019), implying almost a doubling of its contribution on the back of large discoveries of gas reserves in Mozambique, Tanzania and elsewhere. Most of the oil and gas is, however, exported and not refined or used domestically. In spite of the fact that Africa exports large amounts of energy, a large section of its population does not have access to electricity.

In the Current Path forecast, the contribution from nuclear power was 0.5% of production in 2019 and is forecast to decline. Its future will largely depend on the extent to which new technologies, such as small modular nuclear technologies, become commercially attractive. In 2019, energy production from hydro accounted for only 0.2 BBOE (or

11%). Countries like the Democratic Republic of the Congo (DR Congo) have huge hydropower potential and growth in this sector depends on the implementation of schemes like the Grand Inga scheme. In the Current Path forecast, 0.45 BOE (or 4.1%) of its energy will come from hydro in 2043.

However, other renewable energy sources, such as wind and solar, are increasingly becoming significant sources of energy representing 14.3% of Africa's total energy production in 2043 (equivalent to 1.65 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.

Africa's total carbon emissions have steadily increased from 170 million tons in 1990 to 422 million tons in 2019. Africa's carbon emissions are comparable to South East Asia (453 million tons) and South America (359 million tons). Whereas in 2019 Africa released 4.4% of global carbon emissions, by 2043 it will release 9.5%.

In 2043, it is forecasted that carbon emissions in Africa will amount to 939 million tons, greater than the Current Path forecast for South America, South East Asia and Europe in that year. The main reason for the increase is due to Africa's rapid population growth that, by 2043, will have increased to almost 24% of the global total.

Endnotes

1. Frankema et al (eds), The History of African Development. An Online Textbook for a New Generation of African Students and Teachers, African Economic History Network, 2022.

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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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