EAC
Sectoral Scenarios for EAC

Mustapha Jobarteh
# Table of contents

Sectoral Scenarios for EAC
- Stability scenario 3
- Demographic scenario 6
- Health/WaSH scenario 10
- Agriculture scenario 12
- Education scenario 16
- Manufacturing scenario 20
- Leapfrogging scenario 24
- Free Trade scenario 29
- Financial Flows scenario 32
- Infrastructure scenario 37
- Governance scenario 41
- Impact of scenarios on carbon emissions 44

Donors and Sponsors 45
Reuse our work 45
Cite this research 45
Sectoral Scenarios for EAC

- Stability scenario
- Demographic scenario
- Health/WaSH scenario
- Agriculture scenario
- Education scenario
- Manufacturing scenario
- Leapfrogging scenario
- Free Trade scenario
- Financial Flows scenario
- Infrastructure scenario
- Governance scenario
- Impact of scenarios on carbon emissions

Stability scenario

Chart 13: Governance security in CP and Stability scenario, 2019–2043

The Stability scenario represents reasonable but ambitious reductions in the risk of regime instability and lower levels of
internal conflict. Stability is generally a prerequisite for other aspects of development and this would encourage inflows of foreign direct investment (FDI) and improve business confidence. Better governance through the accountability that follows substantive democracy is modelled separately.

The intervention is explained here in the thematic part of the website.

Poor countries are, almost inevitably, less stable. Using the governance security index within IFs, at 0.66 the East African Community (EAC) was below the average for Africa which was 0.74 in 2019 and the second lowest among the regional economic communities (RECs) in Africa after the Economic Community of Central African States (ECCAS). The EAC Current Path forecast will see a modest improvement in governance security to 0.72 in 2043. The Stability scenario will improve the governance security index score in the region to 0.83 in 2043 — 15.3% above the Current Path forecast and 12.2% above the Current Path average for Africa. In 2019, Kenya and Rwanda scored the highest in the governance security index in the group of 0.74 and 0.72, respectively, while the DR Congo had the lowest at 0.55. Rwanda has enjoyed a long period of stability after the genocide ended in 1994, while the DR Congo's turbulent history has deteriorated its level of governance security. In the Stability scenario, group members will improve the 2043 Current Path forecast by an amount ranging from 0.154 in the DR Congo — a large increase due to its low base — to 0.075 in Kenya. Coming from their turbulent histories, the DR Congo, Burundi and South Sudan will each see at least 0.11 improvement in their 2043 Current Path forecast of governance security in the Stability scenario.

Stability is a general catalyst for other aspects of development. The Stability scenario increases GDP per capita by US$274, or 6.9%, in 2043, compared to the Current Path forecast. The increase ranges from US$421 in Uganda (the most
improvement), US$355 in South Sudan and US$348 in Rwanda, to US$108 in Burundi (least improvement). The GDP per capita of US$4,211 in the Stability scenario will however be 70% lower than the Current Path average of US$7,157 for Africa.

The Stability scenario will reduce the number of extremely poor people in the EAC by 1.4 million in 2043, compared to the Current Path forecast (using US$1.90). The largest gains are made in the DR Congo which will see a reduction of 7.4 million extremely poor people (5.5 percentage points) in 2043, while Rwanda will see the smallest reduction of 284,000 people, at which point it will effectively have eliminated extreme poverty.

Instead of an extreme poverty rate (using US$1.90) of 28.2% in 2043 on the Current Path, the 2043 extreme poverty rate for the EAC will be 26% in the Stability scenario, 5.1 percentage points above the Current Path average for Africa.
This section presents the impact of a Demographic scenario that aims to hasten and increase the demographic dividend through reasonable but ambitious reductions in the communicable-disease burden for children under five, the maternal mortality ratio and increased access to modern contraception.

The intervention is explained here in the thematic part of the website.

Demographers typically differentiate between a first, second and even a third demographic dividend. We focus here on the contribution of the size of the labour force (between 15 and 64 years of age) relative to dependants (children and the elderly) as part of the first dividend. A window of opportunity opens when the ratio of the working-age population to dependants is equal to or surpasses 1.7.

In 2019, the ratio of working-age persons to dependants for the EAC was 1.15 to 1, below the average of 1.27 to 1 for Africa. It means that for every dependant in the region, there are about 1.2 workers. In the Current Path forecast, the EAC enters the demographic dividend (attained when the country meets a minimum ratio of 1.7 workers per dependant) in 2050, given its large population momentum and its high fertility rates. In the Demographic scenario, the EAC reaches a ratio of 1.7 working-age persons to every dependant in 2041. By 2043, the average ratio of working-age population to dependants in the region will be 1.78 to 1, which is above the Current Path forecast of 1.55 to 1 and the Current Path average of 1.58 to 1 for Africa.
Kenya (in 2031) and Rwanda (in 2037) are the only countries set to enjoy a demographic dividend in the Current Path forecast before 2043. Compared to the Current Path forecast, Rwanda, with an improvement of 0.49 in the ratio of working-age persons to dependants, and Kenya, with an improvement of 0.41, will see the largest improvement in unlocking a potential dividend within the group, while South Sudan will see the least improvement in demographic dividend in 2043.

The infant mortality rate is the number of infant deaths per 1,000 live births and is an important marker of the overall quality of the health system in a country.

The EAC has the fourth lowest infant mortality rate among the RECs in Africa, higher than the Arab Maghreb Union (AMU), Common Market for Eastern and Southern Africa (COMESA) and the Intergovernmental Authority on Development (IGAD). The average infant mortality rate for the group in 2019 was 44.9 deaths per 1,000 live births, 1.9 deaths lower than the average for Africa. On the Current Path, this is projected to decline to 21.9 in 2043. The average for Africa in the same year is 25.6. In 2019, infant mortality ranged from 78 deaths per 1,000 live births in South Sudan to 30 in Rwanda.

In the Demographic scenario, the infant mortality rate in the EAC declines to 17.6 in 2043, 4.3 deaths lower than the Current Path forecast. South Sudan will experience the largest decrease, with 10.1 fewer deaths per 1,000 live births in 2043 compared to the Current Path forecast.
By 2043, the Demographic scenario will increase average GDP per capita by US$150, equivalent to 3.8%, compared to the Current Path forecast. Rwanda and Kenya will benefit the most from the Demographic scenario by 2043, at US$280 and US$265, respectively, compared to the Current Path forecast, with Uganda following with an improvement of US$241. Burundi and South Sudan will see the least improvement in GDP per capita of US$44 and US$36 by 2043, respectively, compared to the Current Path forecast. The GDP per capita of US$4 088 in the Demographic scenario will however be 75.1% lower than the Current Path average of US$7 157 for Africa.
Compared to the Current Path forecast, the Demographic scenario would reduce extreme poverty in the EAC by 16.2 million people (1.8 percentage points) using US$1.90. In 2043, the DR Congo will see the largest percentage point decrease in extreme poverty rate of 2.9 percentage points, followed by Rwanda of 2.5 percentage points when compared to the Current Path forecast. Compared to the Current Path forecast, the Demographic scenario will lift 8.2 million and 3 million more people out of extreme poverty in 2043 in the DR Congo and Tanzania, respectively. The extreme poverty rate of 26.4% in the Demographic scenario will be 5.5 percentage points higher than the Current Path average for Africa in 2043.
This section presents reasonable but ambitious improvements in the Health/WaSH scenario, which include reductions in the mortality rate associated with both communicable diseases (e.g. AIDS, diarrhoea, malaria and respiratory infections) and non-communicable diseases (NCDs) (e.g. diabetes), as well as improvements in access to safe water and better sanitation. The acronym WaSH stands for water, sanitation and hygiene.

The intervention is explained here in the thematic part of the website.

The EAC has the third lowest life expectancy among the RECs in Africa after ECCAS and the Southern African Development Community (SADC). Life expectancy among the EAC member states ranged from 69.1 years in Rwanda in 2019 to 58.8 years in South Sudan. In 2019, average life expectancy was 64.4 years, 1.5 years below the average for Africa. On average, females have higher life expectancy (66.2 years) than males (62.5 years) by an additional 3.7 years. On the Current Path, it will increase to 70.7 years in 2043.

The Health/WaSH scenario results in a marginal life expectancy increase above the Current Path forecast of less than one year. South Sudan, with life expectancy of 58.8 years in 2019, experiences the largest increase of 1.3 years and Rwanda the least (0.112 years). Average life expectancy in the EAC remains below the Current Path average for Africa by less than one year in 2043 in the Health/WaSH scenario.
Rates of infant mortality in the EAC in 2019 were at 44.9 deaths per 1,000 live births and reduce to 21.9 in the Current Path forecast by 2043. In the Health/WaSH scenario, the average by 2043 is 19.7 deaths, 2.3 fewer compared to the Current Path forecast and 5.9 fewer deaths compared to the Current Path average for Africa in the same year. South Sudan experiences the largest decline in infant mortality in the Health/WaSH scenario with 7.2 fewer deaths per 1,000 live births, followed by Uganda with 2.7.
Agriculture scenario

The Agriculture scenario represents reasonable but ambitious increases in yields per hectare (reflecting better management and seed and fertiliser technology), increased land under irrigation and reduced loss and waste. Where appropriate, it includes an increase in calorie consumption, reflecting the prioritisation of food self-sufficiency above food exports as a desirable policy objective.

The intervention is explained here in the thematic part of the website.

The data on yield per hectare (in metric tons) is for crops but does not distinguish between different categories of crops.

In 2019, the average crop yield in the EAC was 3.6 metric tons, below the average for Africa of 3.9 tons. In the Current Path forecast, the EAC will modestly improve yields to 4.6 metric tons by 2043 and to 8.4 tons in the Agriculture scenario — a difference of almost 44%. The projected yield per hectare in the Agriculture scenario will also be above the Current Path average of 4.8 metric tons for Africa in 2043.

Rwanda has the highest pre-loss crop yields per hectare among EAC members as a result of its rich soils, higher rainfall, the intensity of farming and better utilisation of technology. Yield per hectare for Rwanda increases from 8.2 tons in 2019 to 10.6 tons in 2043 in the Current Path forecast and to 14 tons in the Agriculture scenario. Tanzania and South Sudan had the lowest pre-loss crop yields per hectare at 3.2 and 3.1 tons, respectively, in 2019.
Compared to the Current Path forecast, South Sudan will experience the largest improvement (4.6 tons by 2043) in the Agriculture scenario, followed by Burundi (4.5 tons). Rwanda and Kenya will experience the least improvements of 3.4 tons and 2.9 tons, respectively, in the Agriculture scenario.

In the Current Path forecast, the contribution of agriculture to the GDP of the EAC declines from 28% in 2019 to 10% in 2043. In the Agriculture scenario, agriculture would still contribute 14.3% to GDP by 2043, and the EAC will produce 208.3 million metric tons more crops by 2043, compared to the Current Path forecast.

In the Agriculture scenario, import dependence in the EAC is set to decrease from 5.2% to 3.3% (or a net export of 3.3%) instead of 31.8% in the Current Path forecast, resulting in US$102.6 million less in imports than in the Current Path in 2043. Total agricultural exports will skyrocket in 2043 in the Agriculture scenario to 70.3 million metric tons from 5.7 million metric tons in 2019. Compared to the Current Path forecast, Tanzania (at 53.4 million metric tons) followed by South Sudan (at 9.9 million metric tons) will see the greatest increments in agricultural exports.

Source: IFs 7.63 initialising from Food and Agriculture Organization Food Balance Sheets data
The average additional improvement in GDP per capita in the Agriculture scenario is US$452.4 (equivalent to 11%) in 2043, compared to the Current Path forecast for that year. Tanzania will benefit the most: its GDP per capita in 2043 will be US$886.2 larger than in the Current Path forecast for that year, followed by Kenya (US$514.5) and Uganda (US$438.2), while Burundi and South Sudan will benefit the least. The GDP per capita of US$4,391 in the Agriculture scenario, however, will be 63% below the Current Path average of US$7,157 for Africa.
Agriculture traditionally has a significant effect on extreme poverty reduction. While the EAC would still have 141 million people living below US$1.90 in the Current Path in 2043, in the Agriculture scenario the number reduces to 96.3 million, mainly from the DR Congo and Tanzania. It means that the Agriculture scenario can move additional 41.2 million people out of extreme poverty. The number of extremely poor people in the DR Congo and Tanzania will decline by 25.9 million and 11.1 million people, respectively, in 2043 in the Agriculture scenario compared to the Current Path forecast for that year.

Whereas in 2019 the percentage of people living below US$1.90 per day in the EAC was 51.5%, there will be a decline to 28.2% by 2043 in the Current Path forecast and 19.3% in the Agriculture scenario. The extreme poverty rate in the scenario will be 1.6 percentage points below the average for Africa on the Current Path. The impact of the Agriculture scenario is such that it reduces the extreme poverty rate by 18.8 and 10.6 percentage points in the DR Congo and Burundi, respectively, compared to the Current Path forecast. The smallest impact of agriculture on poverty will be in Rwanda and South Sudan.
Education scenario

The Education scenario represents reasonable but ambitious improved intake, transition and graduation rates from primary to tertiary levels and better quality of education. It also models substantive progress towards gender parity at all levels, additional vocational training at secondary school level and increases in the share of science and engineering graduates.

The intervention is explained here in the thematic part of the website.

Education is a key development booster but comes with long lags in impact. In 2019, the adult population of the EAC had, on average, 5.6 years of education, which is set to increase to 7.2 years in 2043 on the Current Path. In the Education scenario, the mean years of education of the EAC would increase to 7.6 years, equal to the Current Path average for Africa. While the mean years of male education was 6.1 years in 2019, for females it was 5.1 years — a gap of 1 year. In the Education scenario, the gap in mean years of male and female education is forecast to modestly decline to 0.6 years by 2043, as gender inequality improves. Uganda will experience the largest increase in education years of 0.5 years and South Sudan 0.48 years.
Education quality is as important, if not more important, than access to education. The quality of education can be measured by the test performance of students. In 2019, the average test score for primary learners was 31.1, set to increase to 32.9 in 2043. The Education scenario will increase average primary test scores to 38.5 — a 17% improvement compared to the Current Path forecast and 15.6% above the Current Path average for Africa in 2043.

The secondary education test score in the Current Path forecast improves from 38.7 years in 2019 to 40.2 in the 2043 Current Path forecast. In the Education scenario, average test score improves to 48.1 — a 20% improvement above the Current Path and average for Africa on the Current Path.
The impact of the Education scenario on GDP per capita is an average improvement of an additional US$147, or 3.7%, for the EAC compared to the Current Path forecast of US$3,938 in 2043. The impact is the largest in Tanzania (US$225) and Uganda (US$193) compared to the Current Path forecast for that year. The impact is lowest in Burundi — only US$37 above the Current Path forecast for 2043. The GDP per capita of US$4,085 in the Education scenario, however, will be 75.2% lower than the Current Path average of US$7,157 for Africa.
The Education scenario will lift 12.5 million more people out of extreme poverty in 2043 compared to the Current Path forecast, with most coming from the DR Congo (5.6 million people), Tanzania (3.3 million people) and Uganda (1.5 million people). With much lower levels of extreme poverty, the impact of the Education scenario is lowest in South Sudan.

In the Education scenario, extreme poverty will be 2.4 percentage points lower by 2043 compared to the Current Path forecast in the same year. It will, however, be above the Current Path average of 20.9% for Africa. Viewed as a percentage point reduction in rates of extreme poverty from the Current Path forecast, Tanzania will experience the largest decline of 3.1 percentage points, whereas Rwanda and Kenya will see the smallest decline in extreme poverty due to the Education scenario in 2043. In the case of Kenya, this is the result of a rapid decline in extreme poverty in the Current Path forecast.
Manufacturing scenario

Chart 30: Value added by sector in CP and Manufac/Transfers scenario, 2019–2043

The Manufacturing/Transfers scenario represents reasonable but ambitious manufacturing growth through greater investment in the economy, investments in research and development, and promotion of the export of manufactured goods. It is accompanied by an increase in welfare transfers (social grants) to moderate the initial increases in inequality that are typically associated with a manufacturing transition. To this end, the scenario improves tax administration and increases government revenues.

The intervention is explained here in the thematic part of the website.

Chart 30 should be read with Chart 8 that presents a stacked area graph on the contribution to GDP and size, in billion US$, of the Current Path economy for each of the sectors.

Because of its forward and backward linkages to other sectors, the manufacturing sector is unique in its contribution to productivity improvements in most economies. In 2019, the service sector represented 47% of GDP in the EAC, agriculture 28%, manufacturing 13%, energy 3.4%, ICT 4.6% and materials 3.6%. By 2043, the percentage contributions to GDP in the Current Path forecast are: services 55.3%, agriculture 10.1%, manufacturing 19.9%, energy 1.9%, ICT 6.4% and materials 6.3%.

In the Manufacturing/Transfers scenario, the increased contribution from the manufacturing sector is forecast to reach
0.37 by 2033, the end of the second ten-year implementation of Agenda 2063, and by 2043, the increased contribution from manufacturing is set to reach 0.47 percentage points above the Current Path forecast. The service sector’s contributions are 0.37 and 0.38 above the Current Path by 2033 and 2043, respectively. The relative contribution of the agriculture sector generally declines, reaching 0.88 in 2043, whereas the ICT sector’s contribution declines to a low of 0.054 in 2037 before improving to 0.135 in 2043. The energy sector’s contribution will decline continuously, and the materials sector’s contribution will marginally increase. The dynamics differ across countries. In Burundi and South Sudan, manufacturing’s contribution peaks in 2036 before declining to 20.6 and 0.72, respectively, whereas in the rest of the group, the contribution of manufacturing consistently increases to 2043. In the DR Congo, services’ relative contribution increases consistently across the 2043 forecast horizon, while agriculture’s contribution falls continuously.

All sectors increase in absolute size in the Manufacturing/Transfers scenario compared to the Current Path forecast. By 2043, the service sector will be US$66.6 billion larger than the Current Path forecast for that year, followed by the manufacturing sector which will be US$27.6 billion larger; ICT will be US$9 billion larger. Materials increases by US$7.3 billion. The increases in size for the agriculture and energy sectors are marginal.

Efforts to use welfare transfers to unskilled workers are to offset the increase in poverty/inequality that is often associated with investments in manufacturing. Whereas EAC countries transferred US$12.8 billion in welfare transfers in 2019, the 2043 amount in the Manufacturing/Transfers scenario will be US$109.3 billion — US$42.5 billion more than in the Current Path forecast. Without these transfers, extreme poverty would be significantly higher. Because of the size of their
economies, Uganda, Kenya and the DR Congo have the largest transfers in the Manufacturing/Transfers scenario compared to the Current Path forecast. By 2043, Uganda will add US$17.1 billion more to transfers, Kenya US$10.2 billion more, and the DR Congo will add US$6.9 billion.

Instead of a GDP per capita of US$3,938 in 2043 in the Current Path, the EAC could have a GDP per capita of US$4,230 in the Manufacturing/Transfers scenario representing an additional increase of US$292, or 7.4%. The scenario has the most positive impact on Uganda where GDP per capita in 2043 is US$292 higher than in the Current Path forecast for that year, followed by Tanzania (US$422) and Kenya (US$324). Burundi (US$71) and South Sudan (US$44) benefit the least. The GDP per capita in this scenario will still be 69.2% below the Current Path average of US$7,157 for Africa.
In the Manufacturing/Transfers scenario, the EAC would have 134 million extremely poor people in 2043 (using US$1.90) instead of 154 million, a difference of 20 million people. Given its large population, most of that decline (9 million people in 2043) is in the DR Congo, followed by Uganda (2.9 million less in 2043).

In the Manufacturing/Transfers scenario, the EAC will have 24.6% extremely poor people (using US$1.90) in 2043 instead of 28.2% in the Current Path forecast. This will be above the Current Path average of 20.9% for Africa. Much of the decline is in the DR Congo (a 5.2 percentage point decline) and Rwanda (a 4.7 percentage point decline).
The Leapfrogging scenario represents a reasonable but ambitious adoption of and investment in renewable energy technologies, resulting in better access to electricity in urban and rural areas. The scenario includes accelerated access to mobile and fixed broadband and the adoption of modern technology that improves government efficiency and allows for the more rapid formalisation of the informal sector.

The intervention is explained here in the thematic part of the website.

Fixed broadband includes cable modem Internet connections, DSL Internet connections of at least 256 KB/s, fibre and other fixed broadband technology connections (such as satellite broadband Internet, ethernet local area networks, fixed-wireless access, wireless local area networks, WiMAX, etc.).

In 2019, fixed broadband access per 100 people in the EAC was at 2.6, below the average of 3.1 subscriptions per 100 people for Africa. This is set to increase to 26.1 in the Current Path forecast by 2043, slightly below the Current Path average for Africa at 27.7 subscriptions per 100 people. In the Leapfrogging scenario, that rate almost doubles to 48, with large country to country variations.

Subscriptions per 100 people will increase by more than 20 in five of the seven EAC countries in the 2043 Leapfrogging scenario compared to the Current Path forecast, with the least growth in Rwanda of 12.75.
Mobile broadband refers to wireless Internet access delivered through cellular towers to computers and other digital devices.

Even more rapid than increased subscriptions to fixed broadband is the improved access to mobile broadband, which may be reaching saturation levels. In 2019, 26 out of every 100 people in the EAC were connected to mobile broadband, far below the average subscription of 40.5 per 100 people for Africa. In the Current Path forecast, that ratio quickly gets to more than 100 in 2033 and to 138 by 2043. In the Leapfrogging scenario, it will get 100 in 2029 and to 140 by 2043 — almost on par with the 141 subscription per 100 people for Africa.

The Leapfrogging scenario accelerates the already aggressive forecasts on mobile broadband access within IFs. In 2043, the greatest growth will occur in Uganda (2.3) of additional subscriptions compared to the Current Path forecast, followed by South Sudan (1.9). Due to its very high number of subscriptions in the Current Path forecast, the least growth will occur in Kenya of 0.20 subscriptions per 100 people.
The SDG target for 2030 (Indicator 7.1.1) is 98% electricity access. Due to their low development levels, none of the EAC countries have yet reached the 2030 SDG target of 98% electricity access. In 2019, the EAC average was 34.5% (equivalent to 95.2 million people), forecast to increase to 45% in 2030 and to 62.3% (equal to 311.8 million people) by 2043 in the Current Path forecast. In the Leapfrogging scenario, the average for the group improves to 51.4% in 2030 and to 74.9% by 2043 (representing 374 million people), slightly above the Current Path average of 72.7% for Africa. Uganda has the largest improvement at 21 percentage points above the Current Path forecast by 2043, followed by Rwanda (20 percentage points) and Tanzania (13 percentage points). Kenya will be the country that yields the least impact of the Leapfrogging scenario at 7 percentage points in 2043.

The average urban electrification rate in the EAC was 54.7% in 2019 and is forecast to improve to 63.5% in 2030 and to 76.6% in 2043 in the Current Path forecast. In the Leapfrogging scenario, urban electricity access improves to 83.7% in 2043. The DR Congo is forecast to improve most at 9.6 percentage points in 2043, followed by Burundi at 9 percentage points. Kenya will see the least improvement in urban access to electricity of 4.5 percentage points by 2043.

The rural–urban gap in electricity access is high in the EAC at more than 31 percentage points in 2019. Electricity access in rural EAC is set to increase to 48.2% in 2043 in the Current Path forecast and to 64.3% in the Leapfrogging scenario. The impact of the Leapfrogging scenario on rural electrification is highest in Uganda at 29.4 percentage points above the Current Path forecast, followed by Rwanda at 24 percentage points. South Sudan and Kenya, which will see the least benefit, will have 8.9 and 8.8 percentage points improvement in rural electricity access, respectively, as a result of the Leapfrogging scenario in 2043.
In 2019, GDP per capita was US$2,090 and is forecast to increase to US$3,938 by 2043 in the Current Path. In the Leapfrogging scenario, GDP per capita will increase by additional US$318, or 8.1%, to US$4,256 in 2043, compared to the Current Path forecast. The largest increase is forecast for Uganda at US$632, followed by Rwanda (US$379) compared to the Current Path forecast. The countries with the least improvement are South Sudan and Burundi (both less than US$160). The GDP per capita in the Leapfrogging scenario will be 68.2% lower than the Current Path average of US$7,157 for Africa.
The Leapfrogging scenario will reduce the number of extremely poor people to 115.2 million instead of the 130.8 million people in the Current Path. This is equivalent to an extreme poverty rate of 24.8% below the Current Path forecast of 28.2% but higher than the Current Path average for Africa at 20.9%. It means that the Leapfrogging scenario can lift about 15.6 million people out of extreme poverty in the region.

In the Leapfrogging scenario, the DR Congo will experience the largest decline in the number of extremely poor people (using US$1.90) among EAC countries by 2043, compared to the Current Path forecast. It will reduce extreme poverty by 5.2 percentage points in 2043 as a result of the Leapfrogging scenario interventions, compared to the Current Path forecast. This reduces extreme poverty by 5.2 percentage points for the DR Congo and 3 percentage points for Tanzania. South Sudan and Kenya will register the least impact on poverty as a result of the Leapfrogging scenario mainly due to their already high rates of Internet connectivity.

Instead of 81.9 million extremely poor people in 2043, the DR Congo will have 72.7 million, a difference of 9.2 million people; in 2030, the difference will be 3.3 million people. Whereas the EAC was forecast to have 141 million extremely poor people in 2043, that number will only be 124 million in the Leapfrogging scenario.
The Free Trade scenario represents the impact of the full implementation of the African Continental Free Trade Area (AfCFTA) by 2034 through increases in exports, improved productivity and increased trade and economic freedom.

The intervention is explained here in the thematic part of the website.

The trade balance is the difference between the value of a country’s exports and its imports. A country that imports more goods and services than it exports in terms of value has a trade deficit, while a country that exports more goods and services than it imports has a trade surplus.

In 2019, the EAC had a trade deficit of 11% of GDP, which is expected to improve to 4.1% in 2043. The impact of the Free Trade scenario is set to increase this trade deficit to 7.2% of GDP, although the rate fluctuates over time. By 2043, in the Free Trade scenario, the EAC will be exporting to the value of US$474 billion instead of US$296 billion as in the Current Path forecast and importing to the value of US$538 billion instead of US$316 billion.

Compared to the Current Path forecast, EAC countries will increase their imports measured as a percentage of GDP in the Current Path forecast until 2035 when it starts to decline, so that by 2043 imports as a share of GDP gets to only 31.3%. In the Free Trade scenario, increases in imports will reach 44.5% by 2043. Growth in imports due to the Free Trade scenario will be largest in the DR Congo (16.9 percentage points), followed by Uganda (15.6) by 2043.
The GDP per capita for the EAC was US$2,090 in 2019 and is set to increase to US$3,938 in the Current Path forecast. In the Free Trade scenario, it will increase to US$4,455 in 2043 — a difference of US$517. This means that the full implementation of the AfCFTA has the potential to improve GDP per capita in the region by an additional 13.1%. The GDP per capita in the Free Trade scenario will be 60.7% lower than the Current Path average of US$7,157 for Africa.
Trade openness will reduce poverty in the long term after initially increasing it due to the redistributive effects of trade. Most African countries export primary commodities and low-tech manufacturing products, and therefore a continental free trade agreement (AfCFTA) that reduces tariffs and non-tariff barriers across Africa will increase competition among countries in primary commodities and low-tech manufacturing exports. Countries with inefficient, high-cost manufacturing sectors might be displaced as the AfCFTA is implemented, thereby pushing up poverty rates. In the long term, as the economy adjusts and produces and exports its comparatively advantaged (lower relative cost) goods and services, poverty rates will decline.

In the Current Path forecast, the extreme poverty rate (using US$1.90) in the EAC is set to decline from 51.5% in 2019 to 41.3% in 2030 and to 28.2% in 2043. In the Free Trade scenario, rates of extreme poverty start to decline from 2021 to 21.9% in 2043, 6.3 percentage points below the Current Path forecast but a percentage point above the Current Path average for Africa. While the DR Congo will see the largest decline of 12.6 percentage points compared to the Current Path, Tanzania experiences a decline of 5.5 percentage points by 2043.

In 2019, 141.9 million people were considered to live on less than US$1.90 per person per day in the group. In the Current Path forecast that will slightly decline to 130.8 million in 2043. In the Free Trade scenario, extreme poverty numbers will decline to 101.8 million people in 2043. This means that the impact of the Free Trade scenario lifts additional 31.4 million people out of extreme poverty. The DR Congo, with its large poor population, will see the greatest improvement at 21.9 million people, followed by Tanzania at 5.8 million people.
The Financial Flows scenario represents a reasonable but ambitious increase in worker remittances and aid flows to poor countries, and an increase in the stock of foreign direct investment (FDI) and additional portfolio investment inflows to middle-income countries. We also reduced outward financial flows to emulate a reduction in illicit financial outflows.

In 2019, the EAC received US$16.4 billion net aid that will continually increase to US$31.6 billion in 2043 in the Current Path forecast. However, as a percentage of GDP, aid continually reduces from 6.8% of GDP in 2019 to 5.1% in 2030 and to 3.1% in 2043 on the Current Path. This is because the increase in aid does not keep up with the pace of economic growth within the group. The impact of the Financial Flows scenario on the EAC is an increase in aid as a percentage of GDP by 0.26 percentage points above the Current Path forecast to 3.4% of GDP in 2043. This will be higher than the projected average of 1.2% of GDP for Africa on the Current Path. As a percentage of GDP, aid is highest in the small, fragile EAC countries of South Sudan and Burundi, mainly because of the relatively small sizes of their economies.

As a result, in the Financial Flows scenario, the reduction in aid as a percentage of GDP is slower than in the Current Path. By 2030, aid constitutes 5.5% of GDP and is at 3.3% of GDP in 2043. In 2030, the EAC will receive US$2.2 billion more aid in the Financial Flows scenario than in the Current Path forecast and US$3.3 billion more in 2043.
In 2019, the DR Congo, Uganda and Tanzania receive the largest FDI inflows of >4% of GDP of the EAC. Burundi and South Sudan receive the least FDI of EAC countries, perhaps due to the instability in those countries. The impact of the Financial Flows scenario will be greatest in Tanzania where it will boost FDI by additional 0.6 percentage points compared to the Current Path, followed by Uganda (0.54 percentage points) and Kenya (0.52 percentage points). Within the EAC group, FDI inflows will increase to 3.8% in 2043 from 3.3% in 2019 in the Current Path forecast, slightly above the Current Path average for Africa. The Financial Flows scenario will increase FDI inflows to 4.2% of GDP in 2043.
The EAC is a net receiver of remittances at US$3.5 billion in 2019, representing 1.4% of GDP. This is set to increase to US$18.1 billion, equivalent to 1.8% of GDP, in 2043 in the Current Path forecast. In the Financial Flows scenario, this will further rise to US$21.5 billion, constituting 2.1% of GDP, in 2043. In 2019, five out of the seven EAC countries were net receivers of remittance, with Kenya topping the list at US$2.1 billion, followed by Uganda at US$871 million. Rwanda and the DR Congo are considered to be net remittance senders. By 2043, Kenya will benefit most from Financial Flows scenario by boosting remittances receipt by an additional US$1.12 billion, followed by Uganda at US$1.1 billion.
In 2019, GDP per capita in the EAC was US$2,090.6. In the Current Path forecast, GDP per capita will come to US$3,938 in 2043. However, in the Financial Flows scenario, it comes to US$4,024, an increase of US$86.08 or 2.2%. Compared to the Current Path forecast, Rwanda receives the largest increase at US$158.1 in 2043, followed by Kenya and Uganda. The DR Congo and Burundi achieve the smallest improvement at less than US$50 per person. The GDP per capita of US$4,024 in this scenario, however, will be 77.9% below the Current Path average of US$7,157 for Africa.
Trade openness will reduce poverty in the long term after initially increasing it due to the redistributive effects of trade. Most African countries export primary commodities and low-tech manufacturing products, and therefore a continental free trade agreement (AfCFTA) that reduces tariffs and non-tariff barriers across Africa will increase competition among countries in primary commodities and low-tech manufacturing exports. Countries with inefficient, high-cost manufacturing sectors might be displaced as the AfCFTA is implemented, thereby pushing up poverty rates. In the long term, as the economy adjusts and produces and exports its comparatively advantaged (lower relative cost) goods and services, poverty rates will decline.

The difference between the Current Path forecast and the Financial Flows scenario is equivalent to 2.2 million fewer extremely poor people in 2030 and 6.4 million fewer in 2043. The largest declines are in the DR Congo (2.7 million people) and Tanzania (1.1 million).

The extreme poverty rate in 2019 (at US$1.90) was 51.5%, which is likely to decline to 41.3% in 2030 and to 28.2% in 2043. In the Financial Flows scenario, the rate of extreme poverty marginally declines to 26.9% in 2043, above the Current Path average of 20.9% for Africa.
The Infrastructure scenario represents a reasonable but ambitious increase in infrastructure spending across Africa, focusing on basic infrastructure (roads, water, sanitation, electricity access and ICT) in low-income countries and increasing emphasis on advanced infrastructure (such as ports, airports, railway and electricity generation) in higher-income countries.

Note that health and sanitation infrastructure is included as part of the Health/WaSH scenario and that ICT infrastructure and more rapid uptake of renewables are part of the Leapfrogging scenario. The interventions there push directly on outcomes, whereas those modelled in this scenario increase infrastructure spending, indirectly boosting other forms of infrastructure, including those supporting health, sanitation and ICT.

The intervention is explained here in the thematic part of the website.

In 2019, the electricity access rate in the EAC stood at 34.5%, in 2030 it will increase to 45%, and in 2043 Current Path forecast it reaches 62.3%. The Infrastructure scenario has the effect of boosting electricity access across member countries by an average of 3.9 percentage points in 2043 compared to the Current Path forecast, of which 2.9 percentage points pertains to people living in urban areas. South Sudan and Rwanda will see the greatest boost in access to electricity due to the Infrastructure scenario of 14.8 and 6.3 percentage points, respectively, in 2043. At the same time, Tanzania and Kenya will see the least improvement.
Indicator 9.1.1 in the Sustainable Development Goals refers to the proportion of the rural population who live within 2 km of an all-season road and is captured in the Rural Access Index.

In 2019, 47.7% of the population in rural areas in the EAC lived within 2 km from an all-weather road, 5.3 percentage points lower than the average for Africa. The Current Path forecast is that this will improve to 49.4% by 2030 and to 52.9% by 2043, and to 54% in the Infrastructure scenario. However, by then it will still be below the Current Path average for Africa estimated at 59.1%. The EAC countries with the best access in 2019 were Kenya (63.3%) and Tanzania (60.7%). The worst performing countries were Uganda (34.5%) and the DR Congo (32.9%). Rwanda gains most from the Infrastructure scenario, improving access by 5.8 percentage points above the Current Path forecast by 2043, followed by Uganda. In Burundi, the Infrastructure scenario has the least impact on rural access to all-weather roads of less than 0.6 percentage points.
The GDP per capita for the EAC was US$2,090.6 in 2019 and is set to increase to US$3,938 in the Current Path forecast, compared to US$4,064 in the Infrastructure scenario by 2043. This represents a 3.2% increase in average GDP per capita, equivalent to US$126 in the region in this scenario compared to the Current Path forecast. Uganda gains the most in GDP per capita and increases US$288 above the Current Path forecast by 2043, followed by Tanzania (US$161). Burundi, which benefits the least, will only add US$21 per person by 2043 from the Infrastructure scenario. The GDP per capita in the Infrastructure scenario, however, will be 76.1% lower than the Current Path average of US$7,157 for Africa.
The Current Path forecast is that extreme poverty in the EAC (using US$1.90) will slightly decrease from 141.9 million people (51.5% of the population) in 2019 to 130.8 million (28.2% of the population) in 2043. The number of extremely poor people in the Infrastructure scenario in 2043 will be 124.8, representing 26.9% of the total population. The Infrastructure scenario can lead to 5.9 million fewer poor people in the region by 2043. The decline in poverty is most significant in South Sudan and the DR Congo, with 3 percentage points less in the poverty rates in 2043 compared to the Current Path forecast. The extreme poverty rate in this scenario will be 6 percentage points higher than the average for Africa on the Current Path.
Governance scenario

The Governance scenario represents a reasonable but ambitious improvement in accountability and reduces corruption, and hence improves the quality of service delivery by government.

The intervention is explained here in the thematic part of the website.

As defined by the World Bank, government effectiveness ‘captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies’.

Chart 51 presents the impact of the interventions in the Governance scenario on government effectiveness.

In 2019, the average score for the EAC on the governance effectiveness index was 1.61 — 5.6% lower than the average for Africa. On the Current Path, this is projected to reach 2.01 by 2043. The Governance scenario improves government effectiveness by 0.14 (or 7%) to 2.15 in 2043 above the Current Path forecast and 3.3% below the Current Path average for Africa. South Sudan improves the most at 88% and Kenya the least at 0.68%.
In 2019, GDP per capita in the EAC was US$2,090.6 and is set to improve to US$3,938 in 2043. In the Governance scenario, GDP per capita increases to US$4,052 — an improvement of US$114, or 2.9%. Rwanda will gain the most in the Governance scenario compared to the Current Path forecast at US$217, and Burundi will gain the least at a meagre US$44 above the Current Path forecast for 2043. The GDP per capita in the Governance scenario however will be 76.6% below the Current Path average of US$7,157 for Africa.
The rate of extreme poverty (using US$1.90) was 51.5% in the EAC in 2019, equivalent to 141.9 million people. In the Governance scenario, extreme poverty will decline to 26.8% (124.3 million people) by 2043, compared to 28.2% (130.8 million people) in the Current Path forecast and 20.9% Current Path average for Africa. Extreme poverty in the DR Congo and Burundi will decline by 2.2 and 1.7 percentage points in 2043 compared to the Current Path forecast. The Governance scenario has the least impact on Uganda and Kenya, where extreme poverty will decline by less than 1 percentage point.
This section presents projections for carbon emissions in the Current Path for the East African Community and the 11 scenarios. Note that IFs uses carbon equivalents rather than CO2 equivalents.

In 2019, the EAC group released 16 million tons of carbon of which 75% was released by only three countries (Tanzania, Kenya and Uganda). In the Current Path forecast, the EAC will release 96 million tons of carbon in 2043 as a result of greater economic activity and increased population growth.

The Free Trade scenario is the most carbon-intensive scenario (at 108 million tons), followed by the Agriculture scenario (at 107 million tons), while in the Demographic scenario, carbon emissions in 2043 will be below the Current Path forecast at 93 million tons.
Donors and sponsors

Reuse our work

- All visualizations, data, and text produced by African Futures are completely open access under the Creative Commons BY license. You have the permission to use, distribute, and reproduce these in any medium, provided the source and authors are credited.

- The data produced by third parties and made available by African Futures is subject to the license terms from the original third-party authors. We will always indicate the original source of the data in our documentation, so you should always check the license of any such third-party data before use and redistribution.

- All of our charts can be embedded in any site.

Cite this research

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.

About African Futures & Innovation

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.