SADC

Sectoral Scenarios for SADC

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Stability scenario

The Stability scenario represents reasonable but ambitious reductions in 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 in here in the thematic part of the website.

Chart 13 shows SADC's aggregate government security index out of a maximum score of 1 and a minimum of 0. In 2019, the region had an aggregate score of 0.66. The DR Congo performs worst in this regard, with a score of 0.55. Mauritius, Seychelles and Botswana are all the most stable on this measure, each with scores of over 0.8. In the Current Path forecast, the score will gradually improve (ignoring a temporary dip coinciding with instability associated with the COVID-19 pandemic and its impacts). By 2043, this score will improve by approximately 0.05 points representing a general trend towards more stability in the region. This forecast has not, however, considered the recent jihadist insurgency in Mozambique nor the civil unrest in South Africa in mid-2021.

The Stability scenario would have a more dramatic increase in this index reaching levels of 0.82 by 2043, compared to the levels of 0.71 in the Current Path forecast. This is driven primarily by an increase in stability in the DR Congo, an increase of 0.16 index points by 2043, and to a lesser extent in Angola, Malawi, Madagascar and Mozambique. The rest of the region, being relatively peaceful, sees only marginal improvement brought about by the Stability scenario interventions.

As demonstrated in Chart 14, the Stability scenario demonstrates the potential for increased incomes across the region. SADC's regional GDP per capita increases to US$6 068 by 2043 in this scenario compared to US$5 719 in the Current Path

forecast, an increase of US$349. This improvement is driven primarily by increases above US$600 (or 8%) in eSwatini, Angola and Botswana. The effect on comparatively peaceful countries such as Angola and Botswana demonstrates the high impact of increased regional stability of economies throughout SADC.

Increases in GDP per capita are accompanied in this case by a significant number of people leaving extreme poverty, especially in the DR Congo and Madagascar. By 2043, both of these countries see a drop of poverty of over 7.3 percentage points below the Current Path forecast. Overall, the Stability scenario causes a nearly 4-percentage point drop, compared to the Current Path forecast, in poverty rates across the region, equating to 25 million fewer people in extreme poverty, as set out in Chart 15.

This scenario has a dramatic impact on instability-prone countries such as the DR Congo. More peaceful countries benefit as a result of improving perceptions of the region, leading to increased foreign direct investment.

Beyond endemic instability in the DR Congo and Zimbabwe, SADC also faces jihadist insurgencies in Mozambique, which have not been factored into this forecast, the impact of which can lead to billions of dollars of investment and economic losses. Uprisings in South Africa in mid-2021 also threaten the prosperity of peace in the region's economic powerhouse if not contained. [1]

Demographic scenario

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 in 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 first dividend, namely the contribution of the size and quality of the labour force to incomes. It refers to a window of opportunity that opens when the ratio of the working-age population (between 15 and 64 years of age) to dependants (children and the elderly) reaches 1.7.

As mentioned in the Current Path section for SADC, the region is home to several countries which are already reaping the benefits of a demographic dividend of greater than 1.7 (Mauritius, Seychelles and South Africa), with two others on the cusp of entering this dividend (Botswana and Lesotho). However, the region is diverse, with both Angola and the DR Congo still near the 1-to-1 ratio of workers to dependants. As a result, and despite the more advanced demographic structures of a few countries in the region, Chart 16 shows that the region's aggregate demographic dividend was only 1.2 in 2019. The region will only just exceed a dividend of 1.5 by 2043, suggesting that SADC may have to wait decades to reap the benefits of a demographic dividend, even as labour productivity becomes less and less important to modern, mechanised and automated economies.

The Demographic scenario, however, would accelerate this demographic transition on the back of reductions in total fertility (primarily through reductions in child mortality and increased access to contraceptives). In this scenario, as shown in Chart 16, SADC could enter the demographic dividend of 1.7 as a region by 2042, approximately ten years earlier than in the Current Path forecast. This would be driven primarily through accelerated transition in Zimbabwe, Malawi and Madagascar, who would be most dramatically impacted by this scenario.

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.

A key component of this change will be improvements to basic health care which reduces infant mortality in the region. As demonstrated in Chart 17, the Demographic scenario brings about a greater reduction in deaths per 1 000 live births compared to the Current Path forecast. The Demographic scenario has the potential to reduce infant mortality from 46.2 deaths per 1 000 live births in 2019 to 20.4 deaths by 2043, 4.7 deaths fewer by 2043 compared to the Current Path forecast.

Chart 18 shows a US$219 improvement above the Current Path to SADC's aggregate GDP per capita as a result of the Demographic scenario by 2043. This scenario will improve GDP per capita from US$5 719 in the Current Path forecast to

US$5 938 under the Demographic scenario. Each of eSwatini, Malawi, Zimbabwe and Zambia receive boosts above this average.

As shown in Chart 19, the Demographic scenario has the potential to reduce the poverty rate by 2 percentage points below the Current Path forecast by 2043. This translates to 21.8 million fewer people living in extreme poverty under the Demographic scenario compared to the Current Path forecast by 2043. The Demographic scenario has the biggest impact on Madagascar, which sees an improvement of over 5 percentage points over the Current Path forecast, followed by the DR Congo at just under 3 percentage points by 2043.

Health/WaSH scenario

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.

Gains made from the Health/WaSH scenario are relatively modest in SADC compared to other sub-Saharan regions as SADC contains several countries with relatively good endowments of WaSH infrastructure. This scenario sees an improvement in life expectancy reaching 70.29 years by 2043, compared to 69.5 years in the Current Path forecast. South Africa, Lesotho, Zambia, Eswatini and Botswana all see the largest improvements in life expectancy in this scenario—all countries with high levels of endemic diseases.

Infant mortality improves in the Health/WaSH scenario by 2.7 births compared to the Current Path forecast by 2043 (down from 25.1 deaths per 1 000 live births to just over 22 deaths). Improvements are strongest for Madagascar, Angola, Zambia and Lesotho, which all see above-average improvements on this measure. Wealthier countries such as Botswana, Seychelles and Mauritius gain less than others, but surprisingly relatively wealthy South Africa still sees a strong improvement of two fewer deaths per 1000 live births by 2043 for this scenario compared to the Current Path forecast.

Agriculture scenario

The Agriculture scenario represents reasonable but ambitious increases in yields per hectare (reflecting better management and seed and fertilizer 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 in here in the thematic part of the website.

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

Chart 22 demonstrates the aggressive potential improvements of an agricultural revolution in SADC. This scenario has the potential to increase yields per hectare by nearly 63% by 2043 from Current Path levels. Mozambique sees the most aggressive improvement at approximately 114% by 2043 from the Current Path forecast. Countries which are already very productive, specifically Eswatini and Mauritius, have marginal improvements above the Current Path forecast. The Agricultural scenario would raise SADC's average yields per hectare to levels similar to South Asia in 2019 by as early as 2037, representing an aggressive but realistic possible improvement to yields.

A doubling of yields for several SADC countries, and dramatic improvements in most others, will have a dramatic impact on food security and food independence in the region. As demonstrated in Chart 23, agricultural import dependence (that is net imports as a per cent of demand) could drop to under 4% by 2043 in the Agricultural scenario, as opposed to 33% in the Current Path forecast. Should reductions in population size contemplated in the Demographic scenario be combined with this scenario, SADC could have the potential to become a net food exporter. In this scenario, Comoros, Mozambique, Tanzania and Zambia could become net food exporters by 2043.

While the Agriculture scenario has a limited impact on countries that already have very efficient agricultural sectors (particularly Mauritius, Seychelles, Eswatini and South Africa), it has a remarkable impact on those countries that have much to improve. Tanzania, which becomes a net food exporter under the Agriculture scenario, receives a US$886 increase to its GDP per capita by 2043 compared to the Current Path forecast, followed by an increase for Namibia of US$730 in the same year. Overall, SADC sees an aggregate improvement of US$373 to its GDP by 2043 over the Current Path forecast, as demonstrated in Chart 24.

The Agriculture scenario is most impactful for SADC's poor countries; the impact on extreme poverty in the region is dramatic, with more than 54 million fewer people in extreme poverty by 2043 compared to 2019, as indicated on Chart 25. This equates to a 9-percentage point drop in poverty rates across the region. Madagascar benefits the most from the Agricultural scenario with 16.7% fewer people living in poverty by 2043 compared to the Current Path forecast. The DR Congo and Tanzania also benefit greatly from the Agricultural scenario with 15- and 10-percentage point drop respectively

compared to the Current Path forecast by 2043. The Agricultural scenario can see 54 million fewer people in SADC in poverty by 2043 compared to the Current Path forecast. Getting an agricultural revolution right, even for SADC, thus remains a low hanging fruit which could bring tens of millions of people out of poverty in the region.

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 in here in the thematic part of the website.

As demonstrated by Chart 26, the Education scenario contemplates improvements to the education system such that SADC would see an aggregate increase of 0.3 years of education to mean total years of education over the Current Path by 2043. The increase would be slightly more noticeable among females. These improvements in the quantity of education would be most drastic for poorer countries, with Tanzania receiving an additional half-year of education under this scenario by 2043.

Importantly, quality of education must also improve with quantity. The Education scenario has the potential to increase primary and secondary average test scores across the region by 5 and 8 percentage points respectively above the Current Path forecast by 2043.

As seen in Chart 28, the Education scenario causes a small but not insignificant improvement for the region in GDP per capita of US$202 over the Current Path by 2043. In this scenario, wealthier countries coming off a higher education base appear to benefit most, demonstrating the potency of a well-educated population in a more advanced economy. Indeed, Seychelles benefits most with an increase of US$741 over the Current Path by 2043, and each eSwatini, Botswana, Namibia, Mauritius, Angola, South Africa, Malawi and Tanzania receive benefits above the region's average.

Chart 29 shows that the region sees a 2.5 percentage point reduction in extreme poverty rates as a result of the Education scenario, compared to the Current Path forecast by 2043. This translates to 16 million fewer people in poverty. Despite receiving smaller GDP per capita benefits than wealthier countries, poorer countries benefit more with respect to extreme poverty rates under the Education scenario, with Zambia, the DR Congo, Tanzania and Madagascar all reducing their extreme poverty rates below the Current Path forecast rate by 3 percentage points by 2043.

Manufacturing scenario

The Manufacturing and 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 in 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.

As demonstrated in Chart 30, this scenario contemplates an aggressive investment in the broad manufacturing sector, such that SADC's aggregate manufacturing sector contribution to GDP increases by approximately 0.7% by 2037 and by approximately 0.3% by 2043, compared to the Current Path forecast. The services sector increases from 2039 onwards as the manufacturing sector slowly tapers off as a more developed, urbanised economy (commensurate with a more industrialised economy) has greater need of and a greater income to spend in the services sector. Other sectors, particularly material, energy and agriculture decline in terms of proportional contribution to GDP as a result of the growing manufacturing and services sector.

South Africa sees the largest nominal growth to its manufacturing sector compared to the Current Path in the Manufacturing/Transfers scenario, with an increased value of US$18.2 billion by 2043, with Angola not far behind. The DR Congo and Tanzania also see significant increases in their manufacturing sectors with values of US$5.7 billion and US$6.8 billion respectively. Proportional dynamics brought about by the Manufacturing/Transfers scenario are more complex, however, as, despite having only marginal nominal increases, Seychelles and Mauritius see 0.5 and 0.2 percentage point increases in the contribution of the manufacturing sector to their GDPs above the Current Path forecast.

To address increases in poverty associated with rapid industrialisation, this scenario also contemplates greater welfare transfers to unskilled workers. Industrialising economies would see welfare transfers drop as a proportion of GDP in the region on both the Current Path forecast and in the Manufacturing/Transfers scenario. The value in terms of billions of dollars would rise in both but more aggressively in the Manufacturing/Transfers scenario, such that by 2043, the region would, in aggregate, spend US$232.9 billion on welfare rather than US$178.1 billion on the Current Path forecast.

The Manufacturing/Transfers scenario has the potential to increase GDP per capita to US$6 103 by 2043, up from US$5 719 in the Current Path forecast for the same year. This is an aggregate increase in GDP per capita of US$384 across the region, as shown in Chart 32.

The Manufacturing/Transfers scenario is likely to see Seychelles, Namibia and Botswana increasing their GDP per capita

between US$1 275 and US$1 613 by 2043 over the Current Path forecast. Mozambique benefits the least from the Manufacturing/Transfers scenario, seeing growth of only US$72 over the Current Path forecast by 2043.

This Manufacturing/Transfers scenario has an interesting impact on poverty in the SADC region, in that poverty rates in the region remain relatively static in the short term (until 2034). Poverty rates increase in the short term were it not for welfare transfers, a common occurrence in rapidly industrialising economies as investment into productive capital takes priority over public infrastructure and public services, often benefiting a small capitalist elite over the larger population. By 2043, however, poverty rates drop as jobs are created, the investment blitz abates and greater revenue is extracted from the more productive manufacturing sector to provide public services and infrastructure. By 2043 the region sees a drop of 3 percentage points to the aggregate poverty rate (from 34% in the Current Path forecast to 31% in this scenario). This translates to approximately 21 million fewer people in extreme poverty in the region. Malawi, the DR Congo and Madagascar benefit most in this respect, with reductions of 6%, 5% and 4% respectively.

Leapfrogging scenario

The Leapfrogging scenario represents 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 in 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.).

The scenario represents a dramatic acceleration of the roll out of ICT infrastructure, as seen in Chart 34. In 2019, there were only three fixed broadband subscriptions per 100 people in SADC, though even in the Current Path forecast, this rises rapidly to reach 27 connections per 100 people by 2043. However, this figure is reached more than 10 years earlier in SADC in the Leapfrogging scenario, and by 2043 there will be almost 50 fixed broadband subscriptions per 100 people. This would represent an aggressive push across the region, with all SADC states, excluding both the already well-connected Mauritius and Seychelles, boosting the number of subscriptions by at least 20% above the Current Path forecast by 2043, with both Angola and Zambia pushing subscriptions up by more than 50%.

Mobile broadband refers to wireless Internet access delivered through cellular towers to computers and other digital devices.

In 2019, there were 37 mobile broadband subscriptions per 100 people in SADC, a figure which will reach 136 on the Current Path by 2043. This figure is only marginally higher in the Leapfrogging scenario, at 138 subscriptions. In the Leapfrogging scenario, the 100 subscriptions per 100 people figure is reached in 2028, four years earlier than in the Current Path forecast. The DR Congo, Mozambique and Madagascar lag behind slightly in this scenario at between 126 and 133 subscriptions each, but nevertheless achieve higher figures than the Current Path, especially in the early 2030s.

The Leapfrogging scenario sees an aggressive push in electricity access, accelerating improved access across the region dramatically. In 2019, less than 40% of people in SADC had access to electricity, with rural rates below 22%, far lower than urban rates at 62.8%. Smaller countries find it easier to provide this access, with the high-income Seychelles and Mauritius having nearly 100% and 89% access respectively, while Eswatini and even low-income Comoros having rates of 68% and 76% respectively. The small landlocked nation of Lesotho, however, only has 38% access, and the relatively small state of Malawi has only 16% electricity access. Larger countries such as the DR Congo and Madagascar struggle to provide access with less than 25% access in 2019, while South Africa has the most proportional access of the larger countries at 82% in 2019.

The potential impacts of the Leapfrogging scenario are displayed in Chart 36. This scenario contemplates an acceleration in the roll out of renewable energy such that electricity access across SADC is improved from 62.3% of the population in

the Current Path forecast to 74% by 2043. The scenario is most aggressive for countries lagging behind, including Malawi which sees an 18-percentage point improvement in access and the DR Congo which sees a 10-percentage point improvement (the sheer size of the country making it difficult to accelerate more aggressively than this).

Chart 37 demonstrates the potential benefit of accelerated ICT and renewable technology roll out in SADC. The Leapfrogging scenario has the potential to increase GDP per capita by US$362 in 2043 over the Current Path forecast, pushing GDP per capita to US$6 081. The countries which benefit most in the Leapfrogging scenario are countries which have the most aggressive increase, or already have higher incomes (as this infrastructure appears to have a multiplicative instead of an additive impact on incomes), or both. Eswatini benefits the most from the Leapfrogging scenario with an improvement of US$807 to GDP per capita by 2043, showing the huge benefit of rolling out this infrastructure in a relatively small country. Despite its low-income status, an aggressive push in Malawi sees the country receiving a US$549 improvement (a 14% boost to GDP per capita) in 2043. Madagascar receives the single biggest proportional boost of 20% or US$602. While receiving comparatively smaller boosts, the wealthier nations of Namibia and Botswana see increases of US$720 and US$480 respectively.

The income benefits from the Leapfrogging scenario also translate directly into poverty reduction. Chart 38 shows a 3.8 percentage point decrease in extreme poverty rates by 2043 compared to the Current Path forecast, implying 23.9 million fewer people in poverty. The Leapfrogging scenario also greatly benefits Madagascar, the DR Congo and Malawi by 2043 with reductions of 13%, 5% and 3% respectively over the Current Path forecast.

Free Trade 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 in here in the thematic part of the website.

In 2019, SADC maintained an aggregate trade balance of -2.8% of GDP. Only Mauritius and Botswana maintained positive trade balances in 2019, with South Africa having a small proportional deficit, while Lesotho, Mozambique and Malawi maintained a trade deficit of more than 20% of GDP.

In the Current Path forecast, regional trade deficits will likely reach 2019 levels again by 2029 and continue to drop to -4.2% by 2035, before rebounding upwards. In the Free Trade scenario, this minimum trade deficit would be slightly deeper at -4.4% of regional GDP by 2037 and for a few years, but a smaller trade deficit would be maintained for over a decade. In 2033, Mauritius, Seychelles, South Africa, Botswana and Angola would maintain positive trade balances, with all countries in the region (except Malawi) seeing a decrease to their trade deficit of up to 4.2 percentage points.

The Free Trade scenario translates to significant improvements in income across SADC. As seen in Chart 40, regional GDP per capita has the potential to increase from US$5719 in the Current Path forecast to US$6314 under the Free Trade scenario, an increase of US$595 in 2043. Wealthier economies benefit most in the Free Trade scenario, with Seychelles, eSwatini, Namibia, Botswana, South Africa and Mauritius seeing improvements of between US$1 003 and US$1 613. Yet all states in the region benefit from improvements of at least US$200. Malawi benefits significantly from the Free Trade scenario, receiving an US$824 increase above the Current Path forecast, a 20% improvement.

The Free Trade scenario translates to significant reductions in poverty rates across the SADC region. This is a reduction of 7 percentage points or 45 million fewer people in poverty by 2043 compared to the Current Path forecast, shown in Chart 41. In the Free Trade scenario, the number of people living in poverty is reduced from 180.5 million in 2019 to 165.3 million by 2043. While wealthy countries may receive the largest nominal income benefits from the Free Trade scenario, poorer countries see large decreases in poverty, with the DR Congo and Madagascar seeing the largest drop of approximately 12 percentage points over the Current Path forecast in 2043.

Financial Flows scenario

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.

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

Foreign aid as a percentage of GDP is expected to decline in the Current Path forecast from 2019 levels of 2.5% of GDP to 1.8% in 2043. Chart 42 shows that in the Free Trade scenario, foreign aid receipts for the region would increase by 6% by 2043, an increase of 0.1 percentage points. The biggest recipients of aid in the region were low-income countries, with Malawi receiving aid to the value of 24% of its GDP in 2019. High- and middle-income countries receive very little aid.

The Financial Flows scenario would also boost FDI inflows, as shown in Chart 43. FDI inflows as a percentage of GDP into SADC have been trending upwards since the early 1990s, though there have been significant fluctuations in this regard year-on-year. The COVID-19-related economic recession took the 2019 aggregate inflow figure of 2.8% of GDP to only 0.9%, however, a quick rebound is expected with steady growth in the Current Path forecast into the foreseeable future. In 2019, the leaders in FDI inflows in the region were the diverse group of the tax haven of Seychelles (14%) and Mozambique (13%) where large gas discoveries and a small GDP make for large proportional FDI inflows. Comoros and South Africa brought up the rear with less than 2% of GDP, though South Africa's very large economy means that despite this low proportional ranking it retained the highest nominal FDI inflows in the region. The rankings will remain relatively similar in 2043 in the Current Path forecast, though Mozambique would likely take the first place with 15% of GDP by 2043 and Angola, Eswatini and Botswana could also see significant increases to their proportional FDI inflows.

The Financial Flows scenario would see FDI boosted in the region by approximately 1 percentage point from 3.9% in the Current Path forecast to 5% in 2033. Only Mauritius, Seychelles and Comoros would see improvements of less than 0.3 percentage points by 2043, while Namibia would benefit most with a 2.7 percentage point increase in 2033 and a 1.8 percentage point increase in 2043 above the Current Path forecast.

While remittances are a major source of income across much of Africa, SADC is unusual as a region in that it sees net aggregate outflows of remittances. Whereas Malawi, eSwatini, Comoros, Madagascar, Tanzania, Lesotho and especially Zimbabwe receive net positive remittance inflows (with Zimbabwe receiving over US$2.1 billion in remittances in 2019 by itself), SADC's other countries see net negative flows. Angola, Mauritius and South Africa saw outflows of US$1 515 million, US$545 million and US$509 million in 2019 respectively. In total in 2019, 0.1% of SADC's GDP left the region in the form of remittances, and this figure will climb to 0.4% by 2043 in the Current Path forecast.

The Financial Flows scenario would see aggregate remittance outflows in terms of GDP slightly diminished by 2043 (by less than 0.1 percentage points), though US$840 million more will leave the region nominally, a difference due in part to the larger GDP of the countries in this scenario. In this scenario, most SADC countries would see higher inflows proportional to GDP by 2043 compared to the Current Path forecast (by up to 0.6 percentage points higher in Comoros), while Mauritius, Seychelles, Angola, Botswana, Namibia and South Africa would see slightly increased outflows.

Chart 45 shows the impact of the Financial Flows scenario on SADC's GDP per capita. The Financial Flows scenario would have a modest impact on SADC's incomes, with an increase of US$126 to the regional GDP by 2043 above the Current Path forecast. Wealthier countries tend to benefit more from this scenario, with the larger nominal FDI inflows a potent stimulant to these economies. High-income country Seychelles benefits most with an US$643 increase, while poorer countries like Comoros, the DR Congo and Mozambique see limited benefits in this scenario, showing the limits of increased aid and remittances.

Reductions in poverty are modest for SADC in the Financial Flows scenario, though despite limited improvements to GDP per capita, poorer countries do see a reduction in poverty thanks to increased aid and remittances. Madagascar, Malawi and the DR Congo all see drops of between 1.5% and 3% in poverty rates by 2043 in this scenario compared to the Current Path forecast.

Infrastructure scenario

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 Leapfrogging. The interventions there push directly on outcomes, whereas those modelled in this scenario increase infrastructure spending, indirectly boosting other forms of infrastructure, including that supporting health, sanitation and ICT.

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

As shown in Chart 47, SADC had an aggregate electricity access rate of 39.1% in 2019. This is likely to rise to 62.3% in the Current Path forecast by 2043 but could rise to 66.6% in the Infrastructure scenario. Improvements would be largest in rural areas and in less developed countries. Zambia and Zimbabwe stand to benefit most in this scenario with increases of almost 11 percentage points over the Current Path forecast.

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.

54% of the rural population in SADC had access to an all-season road in 2019. Access is highly correlated with wealth: Seychelles, Botswana, South Africa, Mauritius and Eswatini achieved access rates of 75% in 2019. The sprawling and relatively poorer DR Congo with its equatorial climate and impenetrable forests had the worst access figure at 33% in 2019.

In the Current Path forecast, rates of access should improve across the region to 57% by 2043, though in the Infrastructure scenario, these rates could exceed 58% by this date instead. The scenario specifically targets roads and other basic infrastructure for poorer countries. As such, it is not surprising that countries such as Comoros, Malawi and Eswatini all see increases of more than 3 percentage points to access rates in the scenario above the Current Path forecast. The DR Congo sees a modest improvement of only 0.7 percentage points, demonstrating the difficulty of providing universal basic infrastructure access in such a large and geographically challenging jurisdiction.

Chart 49 displays the impact of the Infrastructure scenario on GDP per capita of SADC and its member states. The Infrastructure scenario sees a modest increase of US$186 to the region's GDP per capita, increasing the average income from US$5 719 in the Current Path forecast to US$5 906 in this scenario by 2043. eSwatini, Seychelles, Angola and Mauritius benefit most with increases of between US$$273 and US$610, suggesting that investments in advanced infrastructure, such as rail and ports will continue to yield benefits to wealthier countries. However, the proportional top gainers include Zambia, Angola, Malawi, Madagascar and Zimbabwe, which also suggests that getting basic infrastructure right first could have large proportional benefits for poorer countries.

The Infrastructure scenario has the potential to reduce extreme poverty rates in the region by almost 2 percentage points by 2043 compared to the Current Path forecast. Poorer countries such as Zambia, Madagascar and the DR Congo would benefit most in this regard with decreases in poverty of over 2% compared to the Current Path forecast, again showing the importance of basic infrastructure for poorer countries. Wealthier countries see only negligible decreases in poverty as a result of this scenario, demonstrating that advanced infrastructure, like a push on industrialisation, is likely to disproportionately benefit the wealthy.

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 in 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'.

In 2019, SADC had a higher government effectiveness quality score of 2, relative to the African average of 1.7, though it remains below the world average of 2.5. Wealthier countries in the region have higher scores, with Mauritius, Botswana, Seychelles, South Africa and Namibia all having scores above the world average. The DR Congo, Comoros, Madagascar, Zimbabwe and Angola had the least effective governments in 2019 on this measure with scores below the continental average.

In the Current Path forecast, SADC would almost reach the 2019 world average of 2.5 by 2043, while in this scenario we simulate a slightly improved governance reality for the region, accelerating the trajectory of improvement from 2023 onwards so that the 2.5 level is reached two years earlier. Relatively effective governments of wealthier countries in the region benefit least, while this scenario sees more significant improvements for governance challenged countries such as the DR Congo and Zimbabwe.

As seen in Chart 52, even marginal improvements to governance on the above measure could lead to respectable income gains for the region. The Governance scenario has the potential to increase GDP per capita from US$5 719 in the Current Path forecast to US$5 863 in the Governance scenario by 2043. This translates to an aggregate improvement of US$144. While receiving small, nominal boosts, Malawi, Angola, the DR Congo and Madagascar receive the best proportional increases to their GDP per capita with improvements of over 3% by 2043 over the Current Path.

The Governance scenario has the potential to reduce extreme poverty rates for the region by almost 1.5 percentage points over the Current Path forecast by 2043. Poorer countries such as Madagascar and the DR Congo would benefit most in this regard with decreases in poverty of over 2% over the Current Path forecast by 2043, again showing the importance of basic infrastructure for poorer countries. Wealthier countries see only negligible decreases in poverty, demonstrating that advanced infrastructure, like a push in industrialisation, is likely to disproportionately benefit the wealthy.

Impact of scenarios on carbon emissions

This section presents projections for carbon emissions in the Current Path for SADC and the 11 scenarios. Note that IFs uses carbon equivalents rather than CO_2 equivalents.

Chart 54 shows that the scenarios which have the strongest impact on incomes also have the worst impact on carbon emissions. The Free Trade scenario alone will increase SADC's carbon emissions from a baseline of 169 million tons of carbon in 2019 to 283 million tons by 2043. The Manufacturing/Transfers scenario will increase carbon emissions to 276 million tons by 2043 while the Agriculture and Stability scenarios will likely increase the emissions to 271 million tons each. The Demographic scenario, which contemplates a smaller population in SADC by 2043 than in the Current Path forecast, is the only scenario which results in less carbon emissions (2 million fewer tons per year by 2043).

Endnotes

1. L Omarjee, 2021, Unrest damaging to economy, Ramaphosa must show 'decisive leadership' - Business Unity SA

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About the authors

Ms Alize le Roux joined the AFI in May 2021 as a senior researcher. Before joining the ISS, she worked as a principal geo-informatics researcher at the CSIR, supporting various local and national policy- and decision-makers with long-term planning support. Alize has 14 years of experience in spatial data analysis, disaster risk reduction and urban and regional modelling. She has a master's degree in geographical sciences from the University of Utrecht, specialising in multi-hazard risk assessments and spatial decision support systems.

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