Harnessing and advancing Africa's future demographic dividend

Jakkie Cilliers

WRR

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Preface

The Netherlands Scientific Council for Government Policy (WRR) working paper *Harnessing and advancing Africa's future demographic dividend* was written by Jakkie Cilliers. The author is the founder and the former Executive Director of ISS Africa. ISS Africa is an independent think tank analysing the potential for stability, development and prosperity in Africa, with offices in Kenya, Ethiopia, South Africa and Senegal. Cilliers currently serves as chairman of the ISS Board of Trustees and head of the African Futures and Innovation programme in the Pretoria office of the ISS.

In this study, the author argues that Africa's demographic future will play a defining role in shaping the continent's development trajectory and position in the global economy. As the world's youngest region, Africa has the potential to reap a significant demographic dividend, boosting economic growth, driving innovation and reshaping global labour markets. The working paper examines the conditions necessary to advance and harness this demographic dividend. It suggests policy options for both African and other countries to help promote this opportunity.

This working paper serves as a background study to a WRR advisory report on the impact of global demographic transitions on the Netherlands, and in particular on Dutch trading and migration patterns. This report is expected to be published in late 2025. The research for the current working paper was completed in May 2025.

WRR working papers are studies developed in the context of WRR activities. Responsibility for the content rests with the author.

Prof. J.E.J. (Corien) Prins   Prof. F.W.A. (Frans) Brom
Chair, WRR   Secretary, WRR

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1 Purpose

Africa's demographic future will play a defining role in shaping the continent's development trajectory and position in the global economy. As the world's youngest region, Africa has the potential to reap a significant demographic dividend, boosting economic growth, driving innovation and reshaping global labour markets. However, the extent to which this dividend will eventually materialise depends on key factors: the timing and duration of peak demographic advantage, the pace of urbanisation, the ability to accelerate a demographic and health transition and the nature of technological progress.

This working paper explores these dynamics, examining the conditions necessary to **advance** and **harness** Africa's demographic dividend. Advancing the demographic transition refers to the process of reducing child mortality and fertility rates by expanding access to reproductive health services, improving education – particularly for girls – and investing in basic health and sanitation systems. Harnessing the demographic dividend then requires converting this more favourable age structure into economic and social returns.

The working paper assesses the policy choices that could maximise economic and social benefits, from investments in education and health to labour market reforms and governance strategies. Recognising that Africa's demographic transformation will not unfold in isolation, this working paper also considers its broader implications for Europe and the Netherlands. Shifting population patterns, evolving trade and investment landscapes and changing migration trends will have direct geopolitical and economic consequences.

By understanding these shifts, the Netherlands can better position itself to engage with Africa in a mutually beneficial, forward-looking manner aligned with global development goals.

The working paper draws upon two themes on the African Futures website, demographics and health, and was commissioned by the Netherlands Scientific Council for Government Policy[1] in The Hague.

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1   Dutch Ministry of General Affairs. 'WRR - The Netherlands Scientific Council for Government Policy'. Accessed 4 May 2025. https://english.wrr.nl/

2   Methodology

2.1   The International Futures forecasting platform

The paper primarily uses the International Futures[2] (IFs) model version 8.38 for its analysis and forecasts. IFs is an advanced integrated assessment platform hosted and developed by the Frederick S. Pardee Institute for International Futures[3] at the University of Denver. It is open-source and free to download.

IFs forecasts development for 186 countries and their interaction, including 55 countries and territories in Africa. It blends different modelling techniques to form relationships based on academic literature to generate forecasts. IFs is, therefore, a dynamic, recursive system with annual time steps. It uses historical data from 1960 (where available) to identify trends and produce a 'Current Path' scenario from 2020 (the current base year) to 2100.

The **Current Path forecast** (or Base Case) results from dynamic interactions across critical systems based on prevailing policies and environmental conditions, rather than a linear extrapolation of trends. The Current Path forecast is a baseline scenario, projecting future development outcomes based on existing trends and policies, assuming no significant interventions or disruptions (business-as-usual scenario). Where not indicated otherwise, the reader should assume that data and forecasts represent this business-as-usual forecast.

IFs integrates country-specific, regional and global projections across multiple sectors, including demographics, economics, health, education, infrastructure, agriculture, energy, technology, governance, international politics, socio-political issues and the environment. These sub-modules are dynamically connected, so the model simulates how changes in one system lead to changes in all other systems. As a result, IFs extensively endogenises relationships from a broad range of critical global systems.

Chart 1 is a visual representation of the significant sub-modules in IFs. The model is significantly more complex, however, and a network presentation of the full model is available online.[4]

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2   International Futures - Josef Korbel School of International Studies. 'International Futures'. Accessed 4 May 2025. https://korbel.du.edu/pardee/download-ifs/

3   Frederick S. Pardee Institute for International Futures. Accessed 4 May 2025. https://korbel.du.edu/pardee/

4   See https://ifsnetworkdiagram.du.edu/

Chart 1 IFs sub-modules
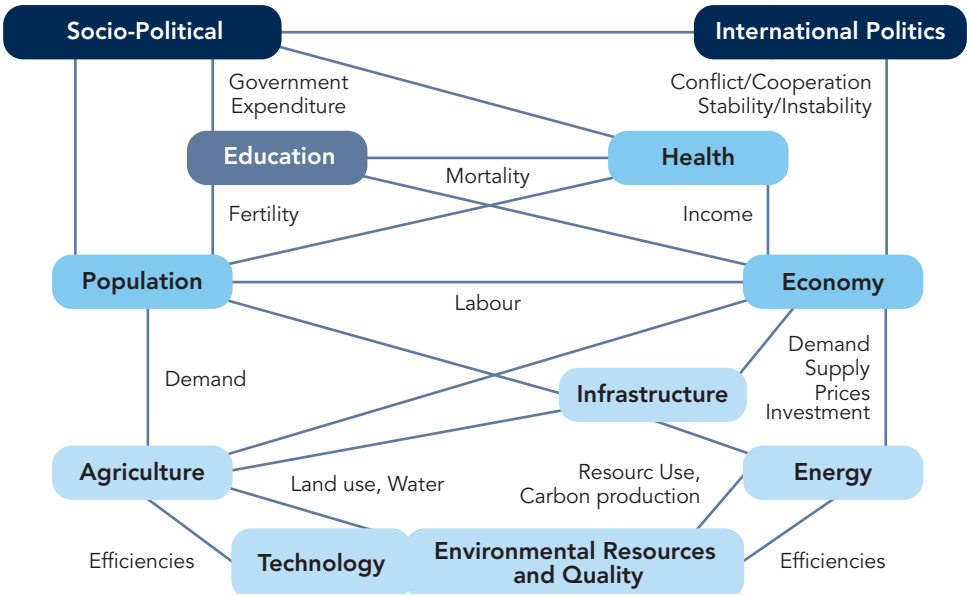
Source: Frederick S. Pardee Institute for International Futures

IFs is one of the few global modelling platforms capable of projecting Sustainable Development Goal (SDG) achievement across all SDGs at the country level and has been widely used in the analysis of African development, particularly by the African Union Development Agency-New Partnership for Africa's Development (AUDA-NEPAD) in setting goals and targets for the Second Ten-Year Implementation Plan[5] of Africa's long-term development programme (Agenda 2063) and by the UN Development Programme (UNDP)[6]. Collectively, the IFs platform projects more than 700 variables, of which more than 100 represent the goals and targets of the SDGs.

The IFs **scenario analysis capabilities** allow users to explore the potential impact of policy interventions and alternative futures by modifying variables across sectors. This provides insights into how different strategies or global changes could influence trajectories. Section 7 presents one such scenario:

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5   AUDA-NEPAD. 'Agenda 2063: Second Ten-Year Implementation Plan (2024–2033)'. Accessed 4 May 2025
6   UNDP. 'Advancing Inclusive Development: Policy Options for Burkina Faso, Guinea, Gabon, Mali and Niger'. Accessed 4 May 2025. https://www.undp.org/africa/publications/advancing-inclusive-development-policy-options

the details of an ambitious Demographics and Health scenario, and compares it with a business-as-usual forecast[7].

The African Futures website notes the extent to which data[8] in Africa is a problem. For instance, in 12 African countries, the last census was conducted before 2010, and no census has been conducted after the secession of South Sudan from Sudan, meaning that basic statistics for these two countries need to be treated with caution. The latest census in Somalia was conducted in 1987. Poor data inevitably translates into poor forecasts, including for the SDGs, where indicators such as secondary school enrolment and completion have notable gaps.

With that caveat, the data within IFs (more than 5,500 series integrated within it) come from a range of international sources like the World Bank, the International Monetary Fund (IMF), the World Health Organization (WHO), various UN bodies like the Food and Agricultural Organization (FAO) and the United Nations Population Fund (UNPF). These organisations invest considerable resources in harmonising data for comparisons between countries and sometimes use alternative sources to estimate missing data. Still, the available data often need to catch up to the current year.

Forecasting requires that IFs be able to initialise from these incomplete historical data. To fill the associated 'data gaps', IFs has a powerful pre-processing function that estimates current data and allows for forecasts. Because IFs produces forecasts that move beyond a linear extrapolation, its projections have historically been comparable to the data that international organisations and national governments ultimately release.

Where data are available and comparable, updating the data in IFs with national statistics sourced from relevant data providers is possible. However, this is labour-intensive and only possible when conducting an extended analysis on a specific country or region. National governments may also use different standards and definitions, such as national poverty instead of the international poverty line, meaning that updates must be validated and done with care. No data updates were undertaken for this study; instead, the data used are all included in IFs, version 8.38.

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7   For more technical information on the IFs demographic and health models, see https://pardeewiki.du.edu/index.php?title=Population and https://pardeewiki.du.edu/index.php?title=Health

8   Technical - AFI. Accessed 4 May 2025. https://futures.issafrica.org/about/

2.2   Technical notes

Unless indicated otherwise, all us$ numbers in this working paper are in constant 2017 values and all data are from IFs version 8.38.

The group 'Europe' consists of Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Lithuania, Luxembourg, North Macedonia, Moldova, Montenegro, Netherlands, Norway, Poland, Portugal, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine and the United Kingdom.

'MENA' (Middle East and North Africa) includes Algeria, Bahrain, Cyprus, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates and Yemen.

'Africa' consists of 55 countries and territories, all members of the African Union:
– 'North Africa' consists of Algeria, Egypt, Libya, Morocco, Sahrawi Arab Democratic Republic, Sudan and Tunisia.
– 'Sub-Saharan Africa' includes all African countries that are not part of North Africa.

The working paper uses the 2024–2025 World Bank country income group classifications for high-income, upper-middle-income, lower-middle-income and low-income countries and 2023 data for comparative purposes (although some of the associated data may be forecasts from IFs). The forecast horizon is 2050 or longer, as appropriate.

Extreme poverty is defined in monetary terms as us$2.15 income per person per day.

Considerable attention is paid to the size of the working-age population, aged 15 to 64, consisting of persons available to work. The labour force includes persons of working age who actively participate in the labour market, including persons participating in both the formal and informal sectors. The labour force is therefore a subset of the working-age population.

All the charts in this paper are available in a separate Tableau workbook available online[9].

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9   Data and figures are available at: https://public.tableau.com/app/profile/african.futures.and.
innovation.institute.for.security.studies/viz/2025UpdateDemographics/Chart1

3   The notion and stages of a demographic transition

Population growth and age structure are critical determinants of economic growth. A larger population translates into a larger economy, but not necessarily higher incomes, less poverty or better living conditions. Given the importance of labour (as opposed to capital and technology) to fuelling growth in low- and middle-income economies, the size of the labour force must increase more rapidly than the total population and productivity must steadily improve to realise a demographic dividend. This implies fertility changes, more and better education and health, among other considerations. This notion of a demographic dividend is well established[10] in demographics and population studies. It refers to the accelerated economic growth that can result from a shift in a country's age structure. This typically occurs when fertility and mortality rates fall, leading to a larger working-age population (aged 15 to 64) relative to dependents (children and the elderly).

Generally, a demographic dividend follows a demographic transition[11], which is typically considered to unfold in five stages (Chart 2):
– **Stage 1 (Pre-transition) – high mortality and high birth rates:** At this stage, the population pyramid is broad at the base, as many children are born. However, since the mortality rate is high across all ages – and in particular for children – the pyramid gets much narrower towards the top. The result is a slowly increasing population.
– **Stage 2 (Early transition) – mortality falls, but birth rates are still high** as the population's health slowly starts to improve and the mortality rate starts to fall, leading to a rapid growth in the size of the population.
– **Stage 3 (Mid-transition) – low mortality and declining birth rates** as children become less economically valuable and as women gain more power within society and partnerships. The population pyramid now starts to bulge around the middle, still increasing but slowing.
– **Stage 4 (Late transition) – low mortality and low birth rates:** Rapid population growth ends. At this stage, the birth rate falls to a similar level as the already low mortality rate. The population pyramid is now almost box-shaped and the population peaks in size.

10   Cincotta, Richard. 'Opening the Demographic Window: Age Structure in Sub-Saharan Africa'. New Security Beat (blog), 26 October 2017. https://www.newsecuritybeat.org/2017/10/opening-demographic-window-age-structure-sub-saharan-africa/

11   Roser, Max. 'Demographic Transition: Why Is Rapid Population Growth a Temporary Phenomenon?' Our World in Data, 1 June 2023. https://ourworldindata.org/demographic-transition

– **Stage 5 (Post-transition) – rising mortality and low birth rates:** As a result, the population pyramid becomes top-heavy. When the fertility rate stays below two children per woman, the result is a long-run decline in population size.

Chart 2 The five stages of the demographic transition
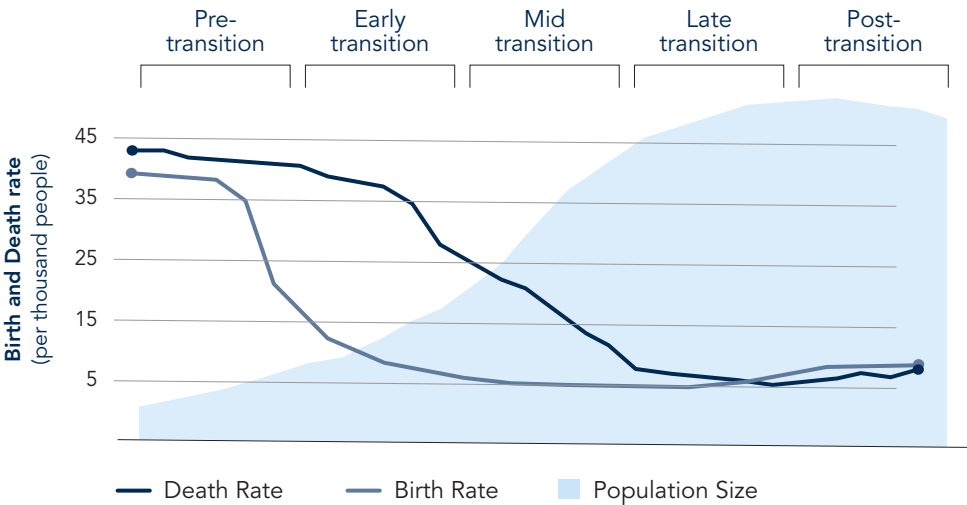
	Pre-transition	Early transition	Mid transition	Late transition	Post-transition
Birth rate	High	High	Declining	Low	Low
Death rate	High	Declining	Low	Low	Rising
Population change	Slowly or haltingly increasing	Rapidly increasing	Increasing but slowly	Nearly stationary	Declining
Population age structure	Young	Youthful	Intermediate	Mature	Post-mature

Source: Cincotta, R.P., R. Engelman, and D. Anastasion. 'The Security Demographic: Population and Civil Conflict After the Cold War'. Washington, DC: Population Action International, 2003.

A **fertility rate** of between 2.1 and 2.8 children per woman of reproductive age eventually (i.e. 15 years later) ensures an optimal balance between the potential labour force and dependents. If the ratio drops below 2.1 children per woman, it reduces the potential labour force (also after a time lag of 15 years). In 2023, Somalia, Chad, Niger and DR Congo all had a fertility rate of above six children for every fertile woman, while 45 countries in Africa exceeded the rate of 2.8. At 1.5 births per woman in 2023, the fertility rate in the Netherlands is significantly below replacement levels, although higher than the 1.4 average in Europe.

Chart 3 Population pyramid by income group in 2023 as a percentage of the total: Africa and the Netherlands
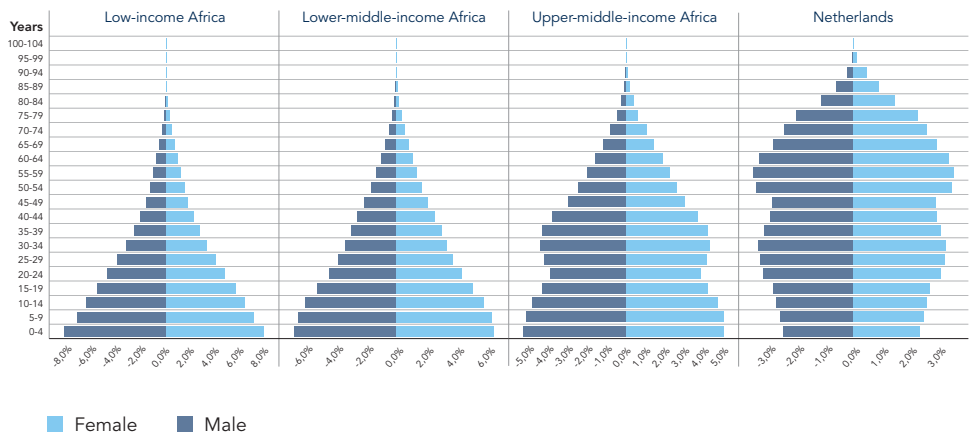
Source: IFs 8.38 initialising from UNDP data

Chart 4 Population pyramid by income group in 2050 as a percentage of the total: Africa and the Netherlands
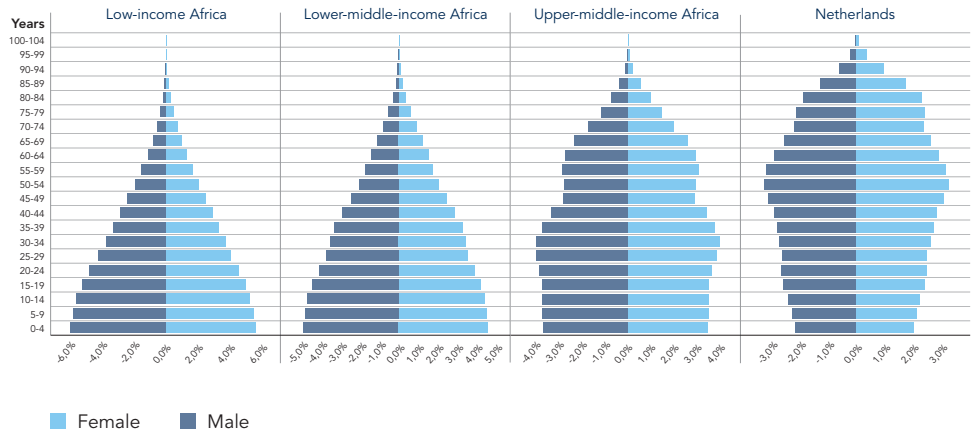
Source: IFs 8.38 initialising from UNDP data

Population structures and dynamics are closely related to development. To that end, Chart 3 presents the population structure by age and sex for Africa's 23 low-income[12], 21 lower-middle-income[13], eight upper-middle income countries[14] and the Netherlands (a high-income country) in 2023. The data are presented as a percentage of the total per age cohort.

Chart 4 presents the 2050 forecast, using the same groups, also from IFs. At that point, most African countries would either be lower-middle or upper-middle income, also reflected in the fact that the population pyramid for the low- and lower-middle-income countries in 2050 appears quite similar. The chart demonstrates the much more mature population structure of the Netherlands, which would then experience rapid population decline with a fertility rate well below replacement level.

In 2023, Africa's total population was estimated at 1.5 billion, with an average total fertility rate (TFR) of 4.2 births per woman of childbearing age – more than double the average for the rest of the world. By 2050, Africa's population will have increased to 2.6 billion and the TFR will decline to 2.8 births per woman – considerably lower than today, but still significantly above that of other regions. As a result, the continent has a significant population momentum compared to Europe, the Americas and even Asia. In 2023, for example, 46.5 million children were born in Africa compared to 87.5 million in the rest of the world (i.e. the world except Africa). However, while total births in the rest of the world will decline to 76.6 million in 2050, births in Africa will increase to 56.7 million.

In contrast to Africa's growing population, Europe's population is declining. In 2023, it was 604 million people, and it will be 570 million in 2050, with an average TFR of 1.5 births per fertile woman across the forecast horizon. Europe saw 5.2 million births in 2023, but it will see only 4.6 million in 2050.

Things can change, of course, and it is clear that Africa is rapidly progressing through its demographic transition. This is evidenced by rapidly falling mortality rates and already substantially lower fertility rates. In fact,

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12   In 2024–2025, these were Burkina Faso, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, Sierra Leone, Somalia, South Sudan, Sudan, Togo and Uganda.

13   In 2024–2025, these were Angola, Benin, Cabo Verde, Cameroon, Comoros, Democratic Republic of the Congo, Côte d'Ivoire, Djibouti, Egypt, Eswatini, Ghana, Kenya, Lesotho, Mauritania, Morocco, Nigeria, São Tomé and Príncipe, Senegal, Tanzania, Tunisia and Zambia.

14   In 2024–2025, these were Algeria, Botswana, Equatorial Guinea, Gabon, Libya, Mauritius, Namibia and South Africa.

organisations such as the Wittgenstein Centre for Demography and Global Human Capital[15] are much more optimistic about education expansion, socio-economic development and access to family planning in developing regions, forecasting much faster declines in fertility in Africa. They predict that Africa's population will reach approximately 2.6 billion by 2100, significantly lower than the IFs forecast (at 3.86 billion) or the UN Population Division's medium variant projection (at 4.28 billion). There is, therefore, some dispute about how rapidly fertility rates in Africa are declining.

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[15]   Wittgenstein Centre. Accessed 4 May 2025. https://www.wittgensteincentre.org/en/index.htm

4   The demographic dividend

4.1   Categories of demographic dividend

As countries go through their demographic transition, changed fertility rates can unlock a **first demographic dividend**. This is a period during which the labour force grows more rapidly than the population dependent on it, potentially translating into more rapid increases in income. At low levels of development, such as in low- and lower-middle-income countries in Sub-Saharan Africa, labour contributes most to economic growth, thus the size, health and education of the labour force are essential considerations in growth rates. The larger the labour force relative to dependents, the more productive it could be, and the faster the economy can grow. At high levels of development, such as in most European countries, capital – and, eventually, technology – are the most significant contributors. The remarkable growth rates of China, the Asian Tigers, and many other high-growth countries initially came from labour when they emerged from poverty.

Most countries in Sub-Saharan Africa should enter a potential first demographic window of opportunity within the next three decades. North African countries are already in this potential window, yet economic growth rates are modest. The reasons for slow growth in these countries are the low rate of female participation in the economy (in spite of their generally higher levels of education), a highly restrictive regulatory environment, the persistent dominance of state-owned enterprises that squeeze out market competition, outdated legal frameworks, and entrenched corruption. Rigid labour laws and a constrained socio-political space deliver systemic exclusion, inequality of opportunity and low growth. Together, these structural impediments have stifled productivity, discouraged private investment and constrained long-term economic growth in North Africa. The explanation underlines that a demographic dividend alone cannot unlock rapid economic growth.

A **second dividend** may follow when an older working-age population accumulates assets for retirement, leading to increased capital accumulation. This is the case with most European countries, North America, and an increasing number of Asian countries. Here, countries have exited their primary demographic dividends and now face population ageing, increased dependency ratios and slower workforce growth.

The ageing of populations in high-income societies has also allowed for a **third demographic dividend**, during which a well-educated and healthy population drives growth. A **fourth demographic dividend** may follow if people arrive at old age healthy and productive, and typical employment extends beyond

Chart 5 The four categories of the demographic dividend

First Demographic Dividend (Labor Supply Effect)	Second Demographic Dividend (Savings and Investment Effect)	Third Demographic Dividend (Human Capital Dividend)	Fourth Demographic Dividend (Longevity Dividend)
Focus Increase in the share of the working-age population	**Focus** Declining fertility rates lead to higher savings	**Focus** Better education, health, and skills in the population	**Focus** Benefits of increased life expactancy and healthy aging
Impact More people available to work, enhancing economic activity	**Impact** Increased savings and investment boost economic growth	**Impact** A healthier, more skilled workforce drives growth	**Impact** Older people contribute through work and consumption

Source: Jakkie Cilliers, African Futures & Innovation

the usual retirement age. South Korea, Japan and Singapore will most likely experience these aspects first. In this category, an ageing population can become an opportunity, but it requires active ageing, lifelong learning and integrating older populations into the economy and social life.

This working paper uses **the ratio of working-age people (aged 15 to 64) to dependents** (children and older persons) as a simple but effective indicator of progress towards a demographic dividend. The ratio was developed by, and is extensively used in, the work of the African Futures team on demographics.[16]

When the ratio of working-age people to dependents reaches 1.7 working-age people to every dependent, countries generally enter the first demographic dividend. In 2023, the ratio in Europe was 1.8:1 and declining, as is visualised in Chart 6. The 2023 ratio was 1.9:1 in MENA and 1.3:1 in Sub-Saharan Africa, increasing in both these regions. The MENA region will reach its peak demographic dividend in 2035, after which the ratio will start to decline. Sub-Saharan Africa will enter a potential window of opportunity in 2053 and peak in 2078.

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16   Demographics - ISS African Futures. Accessed 4 May 2025. https://futures.issafrica.org/thematic/03-demographic-dividend/

Chart 6 Demographic dividend in selected regions, 1960-2050

Working-aged population relative to dependants

■ Asian Tigers   ■ Europe   ■ MENA   ■ Sub-Saharan Africa
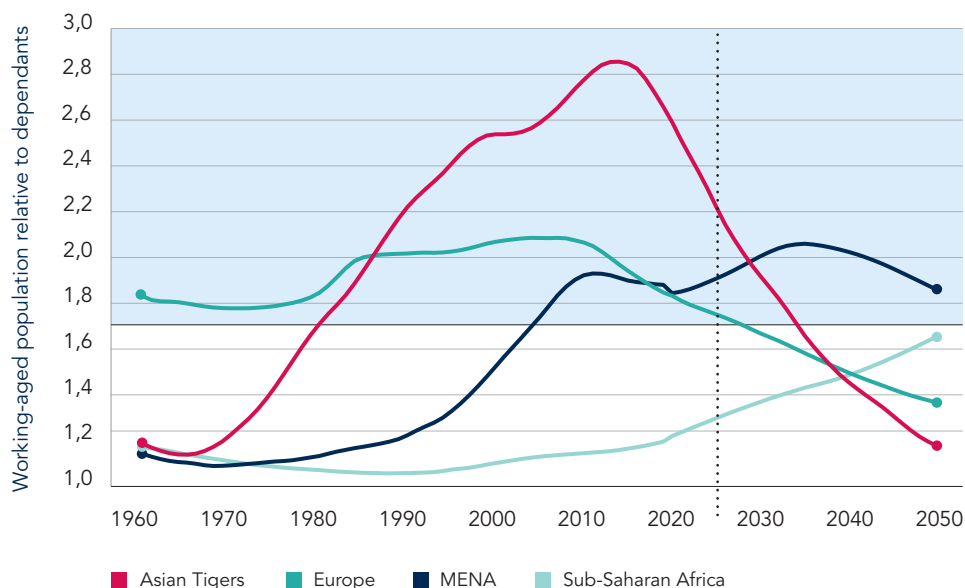
Source: IFs 8.38 initialising from UNPD data

Of course, the size of the labour force relative to dependents does not fully correlate with the number of people in the working-age bracket (15–64), as many would still be getting an education, would not have a decent job, or would struggle for survival in the informal sector. However, the essential relationship holds even after accounting for these differences.

Other conceptualisations that explain the demographic dividend are:
– **Dependency ratios**: if the share of children below 15 years of age is less than 30% and those 65 years and older is below 15%. For all practical purposes, the dependency ratio is the inverse of the demographic dividend.
– The **median age** divides a population into two equal groups. A country where the median age is above 25.5 years but below 41 typically has a large enough working-age population to grow incomes and look after its dependents, children and older adults. The only African countries with a median age above 25.5 in 2023 were Mauritius, Seychelles, Tunisia, Morocco, Algeria, South Africa, Cabo Verde and Libya. In 2023, the median age in Sub-Saharan Africa was 19.5. This will increase to 24.5 by 2050. The median age in the Netherlands in 2023 was 42.6. This will grow to 46.5 years by 2050.

Generally, countries (and regions) that have been unable to progress through the demographic transition rapidly are characterised by severe poverty and high

disease burdens (as governments do not have the resources to provide basic infrastructure and combat illnesses) as well as high fertility and mortality rates that structurally constrain their ability to reduce poverty and improve liveli-hoods. The rapid increase in the number of children offsets the gains in income from economic growth and prevents the accumulation of savings, resulting in low economic capitalisation. The speed at which countries progress through their population transition is therefore essential.

Countries with high **child mortality** rates also tend to have high fertility rates, and a reduction in child mortality supports a virtuous cycle that is key to reducing fertility rates, which is characteristic of the third stage of the demographic transition (as reflected in Chart 2). As children's health and survival improve, a family's demand for more children slowly declines. A smaller family size improves maternal and child education positively. As female education improves and child mortality declines, women have fewer children, allowing for healthier and better-educated children.

The level of **female education** has a powerful impact on reducing the average number of births per woman. Leaving quality aside for the moment, an adult citizen of the Netherlands has 12.4 years of education compared to 6.4 years in Sub-Saharan Africa, i.e. slightly more than the general time required to complete primary school education.

Modernisation, economic prosperity and fertility are closely correlated. The average fertility rate is 1.5 children per fertile woman in high- and upper-middle-income countries, 2.6 in lower-middle-income countries and 4.6 in low-income countries. No country has modernised socially and economically with high fertility rates or a predominantly rural population, which points to how fertility negatively correlates with **urbanisation**. In Africa, fertility rates in capital cities[17] such as Accra (Ghana) and Addis Ababa (Ethiopia) are close to replacement levels. By contrast, the fertility rate in DR Congo is close to seven children per woman. Income often correlates with fertility. In Ethiopia[18], for example, the fertility rate based on 2016 data was 6.4 children for the bottom income quintile and 2.6 for the top quintile. The corresponding numbers in Tanzania[19] for the same year were 7.5 and 3.1. These characteristics are not

17   Cincotta, Richard. 'Opening the Demographic Window: Age Structure in Sub-Saharan Africa'. New Security Beat (blog), 26 October 2017. https://www.newsecuritybeat.org/2017/10/opening-demographic-window-age-structure-sub-saharan-africa/

18   Standard Demographic and Health Survey (DHS) | GHDx. Accessed 4 May 2025. https://ghdx.healthdata.org/series/dhs-standard-demographic-and-health-survey-dhs

19   Standard Demographic and Health Survey (DHS) | GHDx. Accessed 4 May 2025. https://ghdx.healthdata.org/series/dhs-standard-demographic-and-health-survey-dhs

unique to Africa. The same pattern was evident in Europe several decades ago. However, the urban/rural differences have narrowed considerably over time, although fertility rates in European cities still tend to be lower than in rural areas.

Chart 7 Life expectancy in North Africa, Sub-Saharan Africa and Europe, 2020–2050
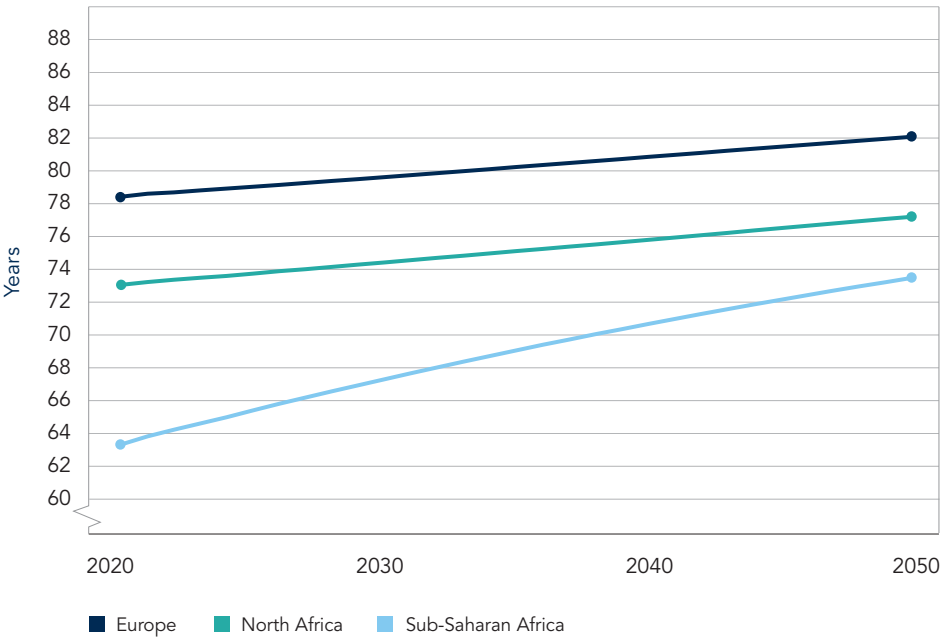
Source: IFS 8.38 initialising from UNPD world population prospects data

Life expectancy in many Sub-Saharan African countries is low. Whereas life expectancy in North Africa was estimated at almost 73 years in 2023 (roughly a year below the global average), it was 66 years in Sub-Saharan Africa – eight years less than the worldwide average, partly owing to the impact of HIV/AIDS and the continent's high disease burden. Before the AIDS crisis, life expectancy in southern Africa was among the highest in Sub-Saharan Africa; by 2004, it had fallen below that of other African regions. Life expectancy in North Africa, which was largely unaffected by HIV/AIDS, remained in line with global life expectancy trends. The rollout of antiretroviral therapy (ART) and prevention campaigns since 2005–2006 has halved mortality since 2010, but the epidemic's effects persist.

Life expectancy in the Netherlands was 82 years in 2023 and is forecast to increase to 84.8 years by 2050, compared to 73 years in Sub-Saharan Africa for

that year. Although progress was interrupted as a result of HIV/AIDS, the gap in life expectancy between Europe and Sub-Saharan Africa is steadily narrowing. However, the gap will still be more than 10 years in 2050 (Chart 7). Despite this progress, Africa still accounts for 75% of all AIDS-related deaths, underscoring the epidemic's lasting impact and reflecting the continent's high disease burden.

4.2   Conditions for realising the demographic dividend

Of course, having a large working-age population alone is insufficient to generate economic prosperity. Better productivity requires potential workers to be well-fed, healthy, literate and sufficiently educated, and they must have a job. Therefore, fast growth in the working-age population as a proportion of the total population does not automatically translate to rapid economic growth, as facilitators such as food sufficiency, literacy and access to quality education, an export orientation, and a governing elite committed to growth also need to be present. For labour to contribute to growth, it requires a facilitating job environment, such as the opportunity to open a business. If that does not exist, working-age people turn to the informal, and often illicit, sector to survive. For many Africans, having a 'job' is about surviving in the large informal sector[20] without job security, benefits or decent work.

Measures of dependency based on age alone can also be misleading, since the age of retirement, delaying work for education, and the role of women in the labour force differ significantly by country and time. For example, average teenagers in rural Sudan, who end their education after seven years to work on the family farm, contribute much earlier and differently throughout their lives than average urban South Koreans, who typically remain in formal education into their mid-twenties.

Within limits, an ageing population has essential benefits, as the size of the working-age population displaces children as dependents. Smaller families mean fewer additional schools are needed, and the ratio of teachers to pupils can improve more rapidly. As a result, parents and the state can invest more resources to improve the quality of education of their smaller number of children, thus improving the contribution that human capital makes to growth.

Later, once population growth drops below replacement levels, economies struggle to grow. Japan is often mentioned in this regard because, together with Singapore, it has the highest average life expectancy (above 85 years). About a

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20   Women and Men in the Informal Economy: A Statistical Picture. International Labour Office, Geneva: ILO, 2018. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcomm/documents/publication/wcms_626831.pdf

dozen countries have even lower fertility rates, including Italy, Spain, Ukraine, China and South Korea. However, steady improvements in income per capita are possible if countries compensate for their smaller labour forces by investing more in capital and technology. Still, the exact limits of the contribution of the fourth demographic dividend to prosperity are unclear.

4.3   Translating the demographic dividend into economic prosperity

The level at which countries achieve their peak demographic dividend – and how long they stay there – can significantly impact prosperity over long-time horizons. **The longer a country remains within a positive demographic dividend window (ratio of 1.7 or higher of working-age people to every dependent) and the higher the ratio, the better**. It is essential to consider, however, that the contribution of labour to economic growth declines as populations age and countries grow more prosperous owing to the effect of labour-saving technology (such as generative artificial intelligence) and to the increased importance of capital as a source of growth.

Technological progress allows progress in many domains, but it typically shifts labour requirements from a low-productivity sector to a higher-productivity sector, often changing employment demand and opportunities. The result is that much attention is paid to its potential future destruction of jobs. That said, historically, the ratio of working-age people to dependents has markedly contributed to the early years of rapid economic growth of Japan, China and the so-called Asian Tigers (Hong Kong, Singapore, South Korea and Taiwan) since the 1960s. China and the Asian Tigers peaked at extraordinarily high ratios in 2009 and 2013, respectively, compared to the lower peak in Europe and MENA, as evident in Chart 7. In these countries, governments actively pursued domestic manufacturing as a pathway to prosperity, with a dramatic positive effect. As their ratios decline, economic growth is now declining, which partly explains why China is unlikely ever to approximate the income levels of most Western countries.

The low working-age to dependent ratios in Sub-Saharan Africa only improved from around 1990. Even in 2023, the ratio of 1.3 working-age people to every dependent was still three decades away from entering a potential demographic window of opportunity in 2053, meaning that slow growth in the size of the labour force relative to dependents (the primary source of economic growth in Sub-Saharan Africa) translates into steady but unspectacular economic growth rates. Except for a few countries in North Africa, Seychelles, Mauritius and South Africa, Africa will realise its first demographic dividend in the latter half of this century (Chart 10).

Development takes time. Eventually, India will spend around 58 years in the demographic high-growth range, having only attained a ratio of 1.7 working-age people to every dependent in 2008. However, while China experienced a peak demographic dividend ratio of 2.7:1 in 2005–2006, India will likely peak at about 2.3:1 in 2037. By this metric, India could experience a modest income growth catch-up with China, but only in the second half of the 21st century, while China will experience rapid ageing.

A peak demographic dividend ratio of 2.8:1 (as seen by the Asian Tiger economies in 2013) delivers more rapid economic growth than a peak of 2.3:1 (as expected for India by 2037). The reason for this is the size of the potential labour force relative to dependents is more significant, which implies a more productive population structure. China's peak of 2.7:1 contributed significantly to its economic growth rate of almost 11% in 2010. In the Current Path forecast, India will grow more modestly at 5.3% from 2030 to 2040.

According to the Current Path forecast, African economies will likely grow at quite modest rates because they will achieve a relatively low worker-to-dependent ratio. None of this is good news for a continent that aspires to catch up with global income averages, particularly for a country with global aspirations such as Nigeria which, at around 2042, will overtake the US to become the country with the third-largest population globally, after India and China. But Nigeria is only set to progress to the 1.7:1 ratio in 2060 in the Current Path forecast. It should peak 30 years later (i.e. around 2090) at a modest ratio of 1.9:1 and exit the favourable demographic window early in the next century. Given this long-term horizon, it is virtually impossible to speculate responsibly on Nigeria's long-term future growth prospects, because the region will experience significant impacts from climate change at a time of rapid technological advances. But what is certain is that current demographic forecasts likely constrain Nigeria to only moderate income growth and, even then, over an extended time horizon.

Looking to the end of this century, the ratio of working-age people to dependents will contract in all regions globally, except in Sub-Saharan Africa, where it will plateau at a ratio of 2:1 from 2075. At that time, Sub-Saharan Africa will have a population of 3.2 billion people (and Africa as a whole 3.5 billion people).

The continent's youthful structure and low worker-to-dependent ratio, discussed previously, is a characteristic which has resulted in a population pyramid with an extensive base that quickly narrows with each age group. This is illustrated by comparing the 2023 and 2050 population pyramids and human capital endowment of the Central African Republic (CAR) with Mauritius

(Chart 8) – the African countries with the lowest and highest median age, respectively.

Chart 8 Human capital distribution of the Central African Republic and Mauritius as a percentage of the total, 2023–2050
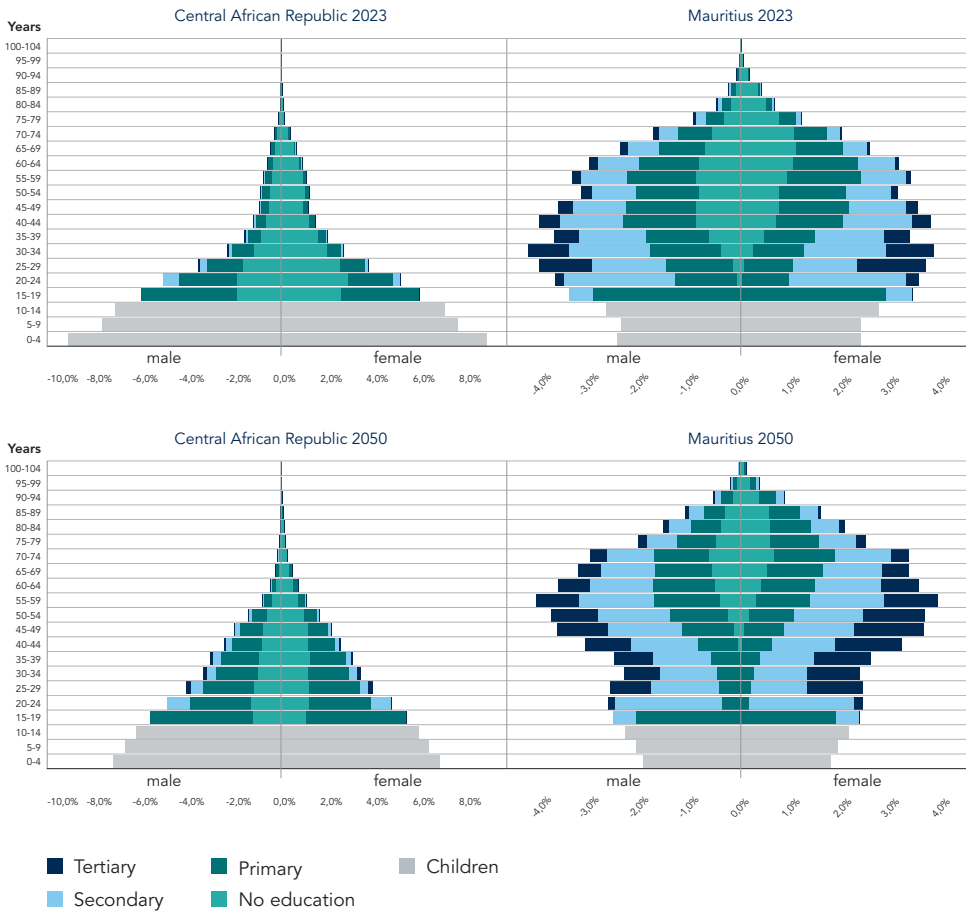
Source: IFs 8.38 initialising from UNPD data

Not only does the shape of the population pyramid differ markedly between the two countries, but the level of educational attainment per age group diverges massively, too. This is no coincidence: with fewer schools to build and teachers to train every year, Mauritius can spend its scarce resources on better education of the children already in the schooling system, ensuring that education quality improves with each passing year. By contrast, the large cohort of children below 15 years of age in the CAR means that the country cannot educate, feed and provide opportunities for them all. The CAR will likely remain poor

unless it manages to reduce the rate at which its population grows. Achieving that amidst an onslaught of religious violence that is mainly aimed at female education is a daunting challenge.

How well countries harness the demographic dividend window has a lot to do with appropriate policy and the strength of institutions. Literacy and quality basic education are obvious additional requirements. The effects are observed first in maternal and child health (largely household-managed), then in education (needing both parental and government investment), next in the economy (needing government policy) and then in governance (needing leadership). Each phase implies a more determined government effort as a country progresses along this value chain. We examine how Africa could benefit and advance its demographic dividend in Section 10.

5   Challenges and opportunities of urbanisation

Urbanisation and population density have historically catalysed economic growth and development. Both are closely tied to the demographic dividend. After half a century of world-leading population growth, by 2030 the African continent will have the population density of Asia in 1960, just when Asia's transformation away from poverty began.

Historically, Africa's population has been kept low because of the continent's high infectious disease burden. Only after the First World War did new drugs, cleaner water supplies and modern medicines reduce mortality in the region with the world's highest death rates.[21] In the middle of the 20th century, African death rates plummeted, and by the 1980s, it had the fastest population growth globally. However, the continent continues to have amongst the lowest population densities.

Leaving the Sahara Desert and low population densities of North Africa aside, Sub-Saharan Africa had a population density in 1960 that was almost nine times below that of Europe. In 2023, the region had 0.5 persons per hectare, compared to four per hectare in Europe – still nearly eight times less densely populated. By 2050, it will be five times less densely populated than Europe. 'Until recently, Africa's chronically low population density made economic development all but impossible in the absence of concentrated markets and adequate labour supplies, as well as unfeasibly expensive in terms of infra-structure costs. Africa is only now becoming sufficiently densely populated to achieve strong economic growth,' observes Joe Studwell[22].

Africa's urbanisation rate, at 44% in 2023, also lags behind the global average of 57%, yet signals significant potential for transformation. The average for Europe in 2023 was 76%, and a remarkable 92% in the Netherlands. Rates of urbanisation are, however, very different. Europe is still becoming more urban, although slowly at around 0.4% per year, while the urbanisation rate in Sub-Saharan Africa is much more rapid at 4% annually – more rapid than other regions in the world.

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21   Studwell, Joe. How Africa Works: success and failure on the world's last developmental frontier, forthcoming
22   Joe Studwell, Joe. How Africa Works: success and failure on the world's last developmental frontier, forthcoming

Chart 9 Population density in Africa and Europe in 2023
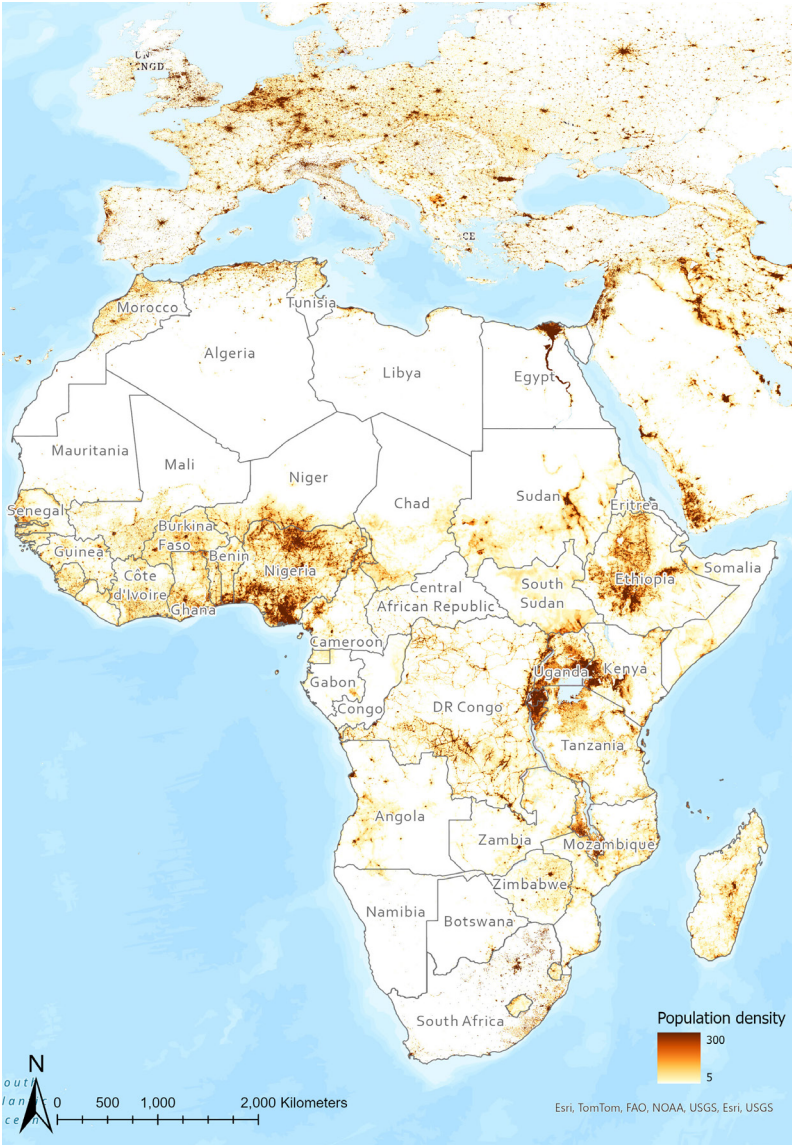
Source: African Futures & Innovation

There is a caveat, however. Unlike other regions, where industrial job opportunities drove urbanisation, African cities are expanding mainly due to rural poverty and deprivation, i.e. a push from rural areas rather than a pull from urban areas. This shift has led to the rapid growth of informal settlements, with urban poverty rising as authorities struggle to provide essential services and infrastructure. However, this also presents an opportunity for the pre-emptive rapid provision of infrastructure and services.

By 2030, Africa's urban population will increase by more than 25 million annually, with six megacities – Cairo, Lagos, Kinshasa, Johannesburg, Luanda and Dar es Salaam – exceeding 10 million inhabitants each. However, poor urban planning and inadequate investment in infrastructure hinder the benefits typically associated with urbanisation. Urban areas allow for the efficient provision of bulk services such as clean water, sanitation and electricity, but many African cities lack the necessary planning and resources. In 2023, only 51% of urban Africans had access to safely managed water, compared to 81% globally. Cholera remains endemic, with Africa recording 79% of global outbreaks over the past four decades. By 2030, access to safe water in urban Africa will reach only 54%, and sanitation services will remain critically underdeveloped, with just 33% of urban Africans having access to adequate sanitation – far from the Sustainable Development Goal (SDG) target of adequate and equitable sanitation for all and an end to open sewers.

The pace and structure of Africa's urbanisation pose economic opportunities and challenges. A McKinsey Global Institute[23] analysis found that shifting from rural to urban employment could account for 20–50% of productivity growth. However, without sufficient formal sector jobs and efforts to harness the transformative powers of urbanisation, much of Africa's urban workforce remains trapped in low-productivity informal sectors. High urbanisation levels beyond 70% may also slow economic growth[24] if not matched by robust infrastructure and institutional frameworks, as seen in urban congestion in parts of Latin America (as a negative example) and the success with urban/rural planning in most parts of Europe.

Geographically, urbanisation rates vary widely within Africa. North Africa is the most urbanised, while East Africa remains the most rural. Central Africa is

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23   McKinsey & Company. 'The Overlooked Revolution for Business in Africa'. Accessed 4 May 2025. https://www.mckinsey.com/featured-insights/middle-east-and-africa/africas-overlooked-business-revolution.

24   'World Cities Report 2020: The Value of Sustainable Urbanization'. United Nations Human Settlements Programme (UN-Habitat), 2020. https://unhabitat.org/sites/default/files/2020/10/wcr_2020_report.pdf.

urbanising the fastest, presenting governments with significant service delivery challenges. Countries like Gabon, Botswana and Tunisia have urbanisation rates above 70%, whereas Malawi, Rwanda and Burundi remain under 20%. Urbanisation rates in Europe range from 98% in Belgium to 37% in Moldova, but the average is 75% – significantly higher than in Sub-Saharan Africa. However, despite low urbanisation levels, some of these countries (such as Mauritius, Rwanda and Burundi) have among the highest population densities on the continent, exacerbating economic and social pressures.

The implications extend beyond economics. Urban areas tend to be more polit-ically engaged, with urban populations often opposing governing parties first, as seen in cities like Algiers, Addis Ababa, Harare and Cape Town. Urbanites are younger, more cosmopolitan and more informed, contrasting with older, more conservative rural populations. As Africa's urban transformation continues, it will shape governance, economic development and political dynamics.

Africa's urban future will propel its development, but it depends on the conti-nent's ability to manage growth effectively. Without strategic planning and investment, rapid urbanisation risks deepening inequality and instability. That being said, the right policies can drive economic transformation and prosperity across the continent.

6   Africa's demographic window of opportunity

The relationship between population density, structure and economic growth is evident when considering Africa's disappointing development performance since independence, which is often blamed on corruption, poor governance and similar factors. The deep driver of slow development may be different, however, if one realises that the ratio of working-age people to dependents declined since African independence in the early 1960s and only started to improve in the late 1980s (Chart 6). In other words, **labour contributed less to economic growth with each passing year until things began to improve from around 1988**. With declining government capacity as a result of a smaller portion of working-age people relative to dependents every year (from which an even smaller portion paid tax), economic growth was outpaced by population growth.

Europe was in a very different situation: its demographic dividend emerging in the 1950s, accompanied by much higher population densities. It has remained in that favourable terrain, although the ratio of working-age people to dependents has declined since 2008 (Chart 6). The decline in the ratio followed the fertility decline from 1965 to 1980, which started to affect the size of its working-age population two decades later. In the intervening years, the availability of a large, youthful, skilled workforce contributed to rapid economic growth, industrialisation and expansion of the welfare system.

There are many reasons for Africa's comparatively slow demographic transition:
– Historically[25] low population density – a function of Africa's high disease burden – translated into lower income growth rates. This is now changing.
– In more recent times, the continent has been unable to empower women sufficiently, raise the quality and attainment of education[26], roll out the use of modern contraceptives quickly enough or transition to economies where child labour[27] is no longer required.
– The dominance of subsistence agricultural practices[28] with a high demand for child labour in Sub-Saharan Africa's large rural population.

25   Health and WaSH - ISS African Futures. Accessed 4 May 2025.
https://futures.issafrica.org/thematic/05-health-and-wash/
26   Education - ISS African Futures. Accessed 4 May 2025.
https://futures.issafrica.org/thematic/06-education/
27   Ritchie, Hannah, and Max Roser. 'Age Structure'. Our World in Data, 20 September 2019.
https://ourworldindata.org/age-structure
28   Agriculture - ISS African Futures. Accessed 4 May 2025.
https://futures.issafrica.org/thematic/04-agriculture/

Africa's demographic transition is, however, not progressing uniformly. Countries across the continent are at different stages, and their position within the demographic transition has significant implications for development prospects and policy priorities. At the broadest level, countries can be grouped into three demographic phases: early, mid, and late/post-transition. These stages are defined by total fertility rates (TFR), dependency ratios and the age structure of the population.

– **Early-transition countries** – including Niger, Chad, DR Congo, Somalia and Mali – still have TFRs well above five children per woman, high child dependency ratios, and limited access to reproductive health services and girls' education. These countries are predominantly low-income, and their demographic structures reflect high levels of food insecurity, limited service delivery and subsistence-based economies with large rural populations. Their demographic profiles are closely tied to structural constraints: underdeveloped health and education systems, high rates of early marriage and minimal labour market transformation.

– **Mid-transition countries** – such as Kenya, Ghana, Senegal, Côte d'Ivoire and Zambia – have experienced a moderate fertility decline (TFRs between 3.0 and 4.5), falling child mortality and a growing working-age population share. Many of these countries are now classified as lower-middle-income economies, with expanding urban populations, growing informal service sectors, and increasing demands on education and infrastructure. They are entering their demographic window of opportunity, but labour absorption and productivity growth remain challenges. Signs of this phase include sizeable youth cohorts in urban areas, rising demand for skills and infrastructure backlogs.

– **Late-transition or post-transition countries** – including Tunisia, Algeria, Morocco and South Africa – have near or below replacement-level fertility (TFRs between 1.8 and 2.6), smaller youth cohorts and rising old-age dependency. These upper-middle-income countries are no longer working to reduce fertility, but rather to sustain growth, manage ageing and promote inclusion. Service sector growth dominates these economies, and productivity gains are more closely tied to innovation and institutional quality than population dynamics.

Whereas only 10 out of 55 African countries (Mauritius, Seychelles, Cabo Verde, Libya, South Africa, Morocco, Tunisia, Djibouti and Botswana) had entered a potential demographic window of opportunity in 2023, the situation will change dramatically in the future. Chart 10 shows the number of years from 2025 for African countries to enter a demographic window of opportunity (ratio of working-age people to dependents reaches 1.7 - see also Chart 6). By 2050, 32 African countries will have a positive ratio of working-age people to dependents. At that time, three countries – Algeria, Tunisia and Mauritius – will already have aged populations to the extent that they will no longer be in a

window of demographic opportunity. A decade later, in 2060, only 12 countries will *not* have entered a potential demographic window, while Seychelles will become the fourth African country to exit from dividend status.

Chart 10 Number of years until a country enters a demographic window of opportunity (ratio of working-age people over dependents reaches 1.7)

Years to demographic dividend

0   54
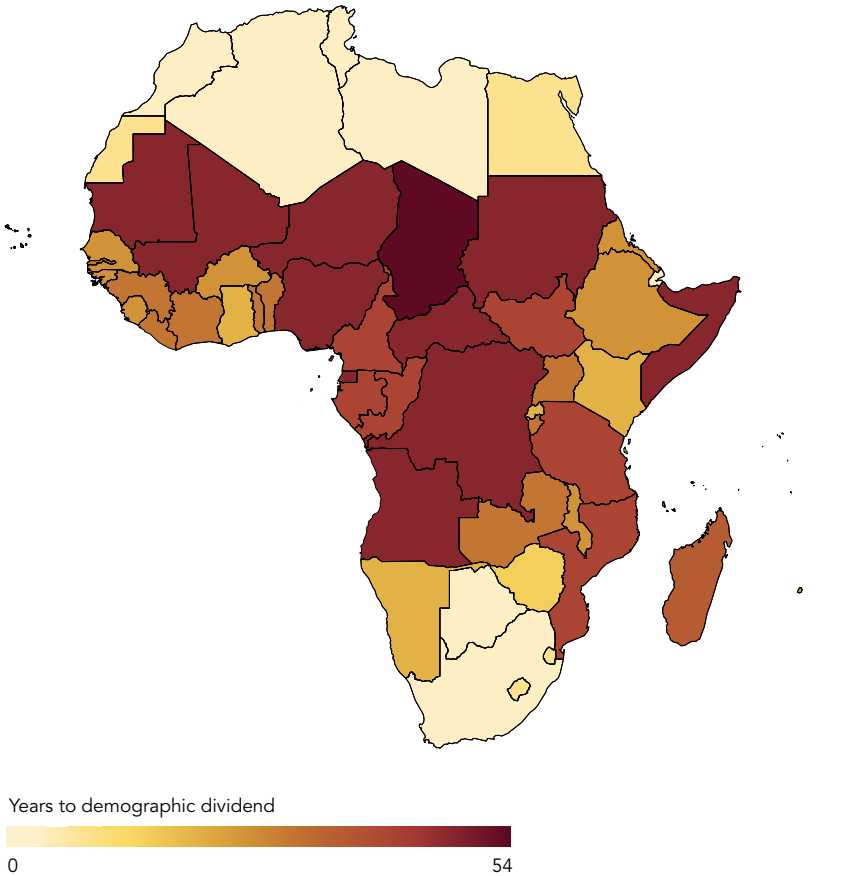
Source: IFs 8.38 initialising from UNPD data

Understanding where countries sit within this demographic spectrum is essential. **The drivers and effects of demographic change differ from country to country, and so must the policy responses. These differences will shape Africa's development landscape in the decades ahead, and determine how and when the continent's demographic potential is realised.**

An important question is: what can be done to help Africa achieve its demographic transition more rapidly? To this end, the following section models the effects of such a scenario.

7   Modelling a more rapid demographic and health transition in Africa

7.1   Context: health and fertility

A first step in modelling a more rapid demographic dividend in Africa is to consider the role and contribution of better health and associated infrastructure to population dynamics.

Africa bears a disproportionately large infectious disease burden because of its high rate of zoonotic diseases (infectious diseases transmitted from animals to humans) and the region's geographic clustering around the equator (meaning limited seasonal variations, particularly in the tropics). By way of illustration, even in 2023, Africa accounted for 47% of global infectious disease deaths despite having only 18% of the world's population. The region's low median age (20 years vs. 34 for the world except Africa) contributes to this high burden of communicable diseases, as infants and young children are more vulnerable to infectious diseases. Poor sanitation, unsafe water and inadequate housing exacerbate disease transmission. Circumstances differ hugely across African countries, of course. The CAR and Lesotho had over seven communicable disease deaths per 1,000 people in 2023, while rates in Tunisia are better than in the Netherlands. Malaria and HIV/AIDS remain particularly prevalent in Africa, which records 95% and 75% of global deaths, respectively, though fatalities will decline with better treatment and prevention.

Countries typically transition from high infectious disease burdens to rising burdens of non-communicable diseases (NCDs) as populations age and wealth increases. The subsequent epidemiological transition raises health care costs, as chronic illnesses like heart disease and diabetes are more expensive to manage than communicable diseases such as influenza.

Sub-Saharan Africa's transition to NCD-driven mortality will occur by 2033, much later than in other regions. However, this shift will happen at lower income and urbanisation levels than experienced in other regions when they transitioned, straining underfunded health care systems.
As chronic diseases like obesity, hypertension and diabetes rise, Africa faces a 'double burden of disease': combating both infectious and non-communicable conditions simultaneously. Pollution and aggressive tobacco marketing further compound health risks. North Africa spends nearly four times more per capita on health care than Sub-Saharan Africa, and Europe still spends significantly more.

Sub-Saharan Africa faces its epidemiological transition with a severe lack of essential infrastructure, particularly clean water and sanitation. In 2023, only 23% of people in Sub-Saharan Africa had access to safely managed sanitation, compared to 89% in Europe. Access to clean water was only slightly better, at 28%, compared to the 97% average in Europe. By 2030, just 26% of Africans in the subregion will have safe sanitation and 32% clean drinking water, far from the 98% SDG target.

The situation is stark in populous countries like DR Congo, Ethiopia and Nigeria, where 367 million people lacked sanitation in 2023. That number will rise to 426 million by 2030 and 560 million by 2050, with only Ethiopia expected to see a plateau in increases before the mid-century. Women and girls suffer disproportionately. Inadequate sanitation leads to high school dropout rates among teenage girls due to a lack of menstrual hygiene facilities and to widening gender disparities in education and economic opportunity. Even Africa's wealthier nations struggle: only Mauritius and Libya met global sanitation standards for upper-middle-income countries in 2023.

Other infrastructure gaps mirror this pattern: in 2023, 99% of people outside Africa had electricity, compared to just 51% in Sub-Saharan Africa. Reliance on solid fuels for cooking also causes severe indoor air pollution, leading to significant health risks.

Water, sanitation and hygiene (WaSH) infrastructure is vital for human capital development, as it is linked directly to poverty reduction, education and gender equality. Poor WaSH access contributes to malnutrition, with diarrheal diseases among the leading killers of children. Stunting, which affects nearly one-third of Sub-Saharan African children, has lifelong consequences, including impaired cognition, lower productivity and higher risks of chronic diseases.

Africa's high infant mortality rate underscores these challenges. In 2023, Sub-Saharan Africa recorded 45 infant deaths per 1,000 live births – more than double the global average and over three times the rate in South America. Without significant infrastructure investments, these gaps will continue to limit Africa's ability to harness its demographic potential fully.

Generally, a decline in fertility[29] follows a reduction in child mortality with a time lag of several years, as parents no longer expect to lose as many children as they did previously. Providing basic infrastructure for water and sanitation

29   Dattani, Saloni, Lucas Rodés-Guirao, and Max Roser. 'Fertility Rate'. Our World in Data, 24 February 2025. https://ourworldindata.org/fertility-rate

and advances in primary health care reduce infant mortality and eventually contribute to lower fertility rates.

From the perspective of modelling the demographic transition and resulting demographic dividend, women's education is the most critical driver, since it tends to reduce fertility and increase female participation in the labour force. Better-educated women have more employment opportunities and are likely to want fewer children. Educated parents are also more likely to be better informed about modern contraceptives and the benefits of lower fertility rates for educational opportunities. By contrast, fertility rates tend to be higher in regions where women have a lower social status, less authority and fewer opportunities outside the household.

Although the Middle East and North Africa are generally not considered progressive regions concerning gender parity (with the limited exception of Tunisia), primary net enrolment for girls in these regions is about 17 percentage points higher than in Sub-Saharan Africa. However, from an economic productivity perspective, the investment in female education in the MENA region is largely wasted, with the female share of the total labour force in a region often known for its lack of female opportunity in employment and politics being less than half that in Sub-Saharan Africa (24% versus 63%).

While changes in education take a long time to affect fertility rates, the use of modern contraceptives is a more immediate (and impactful) driver of total fertility rates. However, poor access to education among women constrains uptake. Sub-Saharan Africa has a significant gap between the demand for modern contraceptives and their availability and use, leading to a high unmet need for family planning. Approximately 32% of fertile women in Sub-Saharan Africa use modern contraceptives compared to 73% in Europe.

Although Sub-Saharan Africa is currently the poorest performing region when it comes to the uptake of contraception use, things are rapidly changing, with all 10 countries that showed the fastest improvement in uptake between 2010 and 2019 located in this region (Malawi, Lesotho, Kenya, Sierra Leone, Liberia, Burkina Faso, Senegal, Uganda, Madagascar and Mozambique). Pessimism about Africa's potential to reduce its fertility rates may thus be misplaced, with seven of the 10[30] most significant decreases in total fertility rates globally

30   World Fertility and Family Planning 2020 - Highlights. United Nations Department of Economic and Social Affairs, Population Division, 2020. https://www.un.org/en/development/desa/population/publications/pdf/family/World_Fertility_and_Family_Planning_2020_Highlights.pdf

between 2010 and 2019 also seen in Sub-Saharan Africa (Uganda, Malawi, Sierra Leone, Ethiopia, Kenya, Chad and Somalia).

Malnutrition adds another layer to this challenge. Undernutrition remains a significant cause of child mortality, while excessive calorie intake fuels obesity, particularly in countries like South Africa. The intersection of poverty and obesity reflects a broader trend in low- and middle-income countries, where rapid economic shifts, globalisation and urbanisation have led to simultaneous under- and overnutrition. As Africa navigates this transition, the strain on public health systems will intensify, requiring urgent and ongoing policy and investment responses.

7.2   Parameters and scenario

This section explains the structure of the Demographics and Health scenario that would accelerate the continent's demographic transition, and potentially advance and enhance its demographic dividend compared to the Current Path forecast presented in preceding sections. Africa's demographic and health outlook can improve significantly through targeted interventions addressing fertility, mortality and WaSH infrastructure. The interventions consist of the following country-level interventions, benchmarked to reflect reasonable but ambitious targets for countries at similar levels of development:

– The first intervention is the large-scale roll-out of **modern contraceptives** in Sub-Saharan Africa, since total fertility rates in North Africa are already low. In 2023, only 32% of fertile women in Sub-Saharan Africa were using modern contraceptives, ranging from 87% in Seychelles to below 4% in South Sudan. By 2050, the scenario will increase average usage to 72%, 18 percentage points above the Current Path forecast.

– **Reducing child and maternal mortality** is another priority, as high child mortality rates often lead families to have more children. By contrast, high levels of maternal mortality directly impact women's lives, families and communities. The interventions reflect an aggressive push for better health care in Africa's low-income countries, reducing Africa's under-five mortality to 25 deaths per 1,000 live births by 2050, compared to 33 on the Current Path forecast. In Europe, the figure will then be 3 per 1,000. Maternal mortality will drop from 421 deaths per 100,000 live births in 2023 to 122 in 2050, far lower than the projected 157 deaths on the Current Path forecast. The European figure will be four per 100,000.

– The third set of interventions is the **more rapid provision of basic infra-structure (safely managed water and sanitation)**, which will have a positive effect on the drivers of Africa's high communicable disease burden as well as indirectly on improving productivity, given a generally healthier workforce. The intervention will achieve an increase in access to safely managed water

by seven percentage points and safely managed sanitation by eight percentage points.
– The fourth set of interventions will reduce the incidence of mortality from **HIV/AIDS, diabetes, malignant neoplasm, diarrhoea, respiratory infections, respiratory diseases, cardiovascular diseases, digestive diseases, malaria, other communicable diseases and other non-communicable diseases in most highly affected countries**. The interventions will reduce mortality rates for the top three disease types for each country in Africa by 20 percentage points below the Current Path forecast.
– The final interventions will **reduce stunting rates for children aged below** five by 16% below the 2050 Current Path forecast.

Cumulatively, these measures in the Demographics and Health scenario:

– **Reduces communicable disease deaths** in Sub-Saharan Africa by 29% (12% in North Africa) and non-communicable deaths by 7% (8% in North Africa);
– **Increases the rate of fertility decline**. Instead of a TFR of three births per woman in Sub-Saharan Africa in 2050, the number will be 2.3 (and lower in North Africa);
– **Increases life span**. Life expectancy by 2050 will be two years longer.

None of the above is free, of course. To allow for the associated expenditure, additional parameters increase the government's health spending to cover the related capital and maintenance costs associated with the improvements in the provision of WaSH infrastructure, coming to a cumulative additional expenditure of US$65.4 billion from 2025 to 2050. The cumulative additional health expenditure from 2025 to 2050 amounts to US$114.7 billion.

Chart 11 summarises the logic and structure of the Demographics and Health scenario. While the scenario presented is ambitious, it is grounded in real-world interventions that have proven feasible in several countries in key areas such as family planning, child survival, education and infrastructure expansion (see text box 1 for concrete examples). The scenario assumptions are therefore not abstract targets, but are built on empirical benchmarks drawn from best-performing countries at similar income levels. For instance, the projected increase in contraceptive use is based on the progress seen in countries like Ethiopia and Malawi. Improvements in maternal mortality reflect Rwanda's achievements. Access to safely managed water and sanitation reflects progress in Ghana and Kenya. These comparisons suggest that, while ambitious, the modelled trajectory is grounded in what has been done before – under challenging, but comparable conditions.

Chart 11 The Demographics and Health scenario

Logic	Intervention	Outcome	Impact
Large and healthy working-age population enhances contribution from labour to growth	Increase contraceptive use	Reduction in total fertility rate	Increase in contribution that labour makes to economic growth
	Decrease child mortality		
	Decrease maternal mortality		
	Increase access to clean water and improved sanitation	Reduction in comm. disease mortality	
	Decrease mortality from infectious diseases		
	Decrease mortality from diabetes, malignant neoplasm, cardiovascular diseases and other non-comm. diseases	Reduction in non-comm. disease mortality	

Source: African Futures & Innovation

The subsequent progress mirrors historical improvements in South America and South Asia. While strides have been made, particularly in AIDS-related mortality, Africa will likely fall short of global health benchmarks, highlighting the need for sustained investment and policy focus.

Text box 1 Real-world examples of demographic transitions and policy impact

Tunisia: early transition through rights-based development
Tunisia presents one of the earliest and most complete demographic transitions on the African continent. Following independence, the government invested heavily in universal education, female literacy and reproductive rights, including liberal family planning policies. Fertility fell from around seven births per woman in 1960 to below replacement level by the early 2000s. Tunisia's experience shows how institutional investment in gender equality, education and access to contraception, rather than purely economic growth, can drive rapid fertility decline. It now faces post-dividend challenges common in ageing societies, including rising old-age dependency and non-communicable diseases.

Nigeria: a stalled transition with structural constraints
Nigeria is Africa's most populous country, but remains in the early-to-middle phase of its demographic transition, with a total fertility rate of 4.5 births per woman in 2023. Despite improvements in maternal and child health services in some states, progress remains uneven due to deep regional disparities, low contraceptive uptake (around 18% modern method prevalence) and a high unmet need for family planning. Rapid urbanisation and high youth unemployment further complicate capitalisation. Nigeria exemplifies how a weak health infrastructure, limited investment in girls' education and governance fragmentation can delay both the advancement and realisation of the demographic dividend.

Rwanda: rapid progress through community health and family planning
Rwanda has made some of the fastest gains in demographic and health indicators in Sub-Saharan Africa. From 2000 to 2020, its under-five mortality fell by about 60%, and the modern contraceptive prevalence rate rose from 10% to over 50% among married women. Key enablers included decentralised service delivery through community health workers, strong political commitment and a multisectoral approach, linking health, gender and poverty reduction. While Rwanda has not yet fully capitalised on its demographic window (labour absorption and skills development remain pressing) its experience demonstrates that ambitious health and fertility gains are achievable through focused, low-cost public sector innovation.
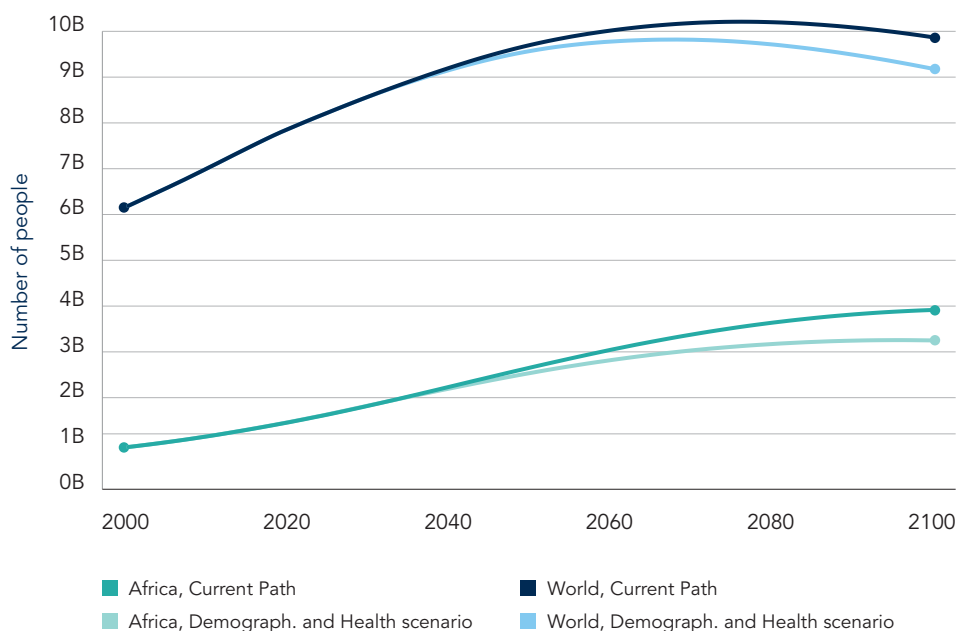
8   Impact of the Demographics and Health Scenario

8.1   On population

Chart 12 presents the world and Africa's total populations to 2100 in the Current Path forecast and the Demographics and Health scenario. On the Current Path forecast, Africa's population will number 2.6 billion in 2050 and 3.9 billion in 2100, constituting 27% and 39% of the global population, respectively, and will still be several decades away from its peak. By contrast, in the Demographics and Health scenario, Africa will have 139 million fewer people in 2050 compared to the Current Path forecast and 715 million fewer people in 2100 – a significant difference.

In the Current Path forecast, the global population will peak at 10.245 billion by around 2076. In the Demographics and Health scenario, the peak will occur a decade earlier, at roughly 9.83 billion people, with positive implications for global sustainability. At that point, Africa's population is expected to have grown to almost 2.9 billion people and constitute 29% of the world's population (in the Demographics and Health scenario).
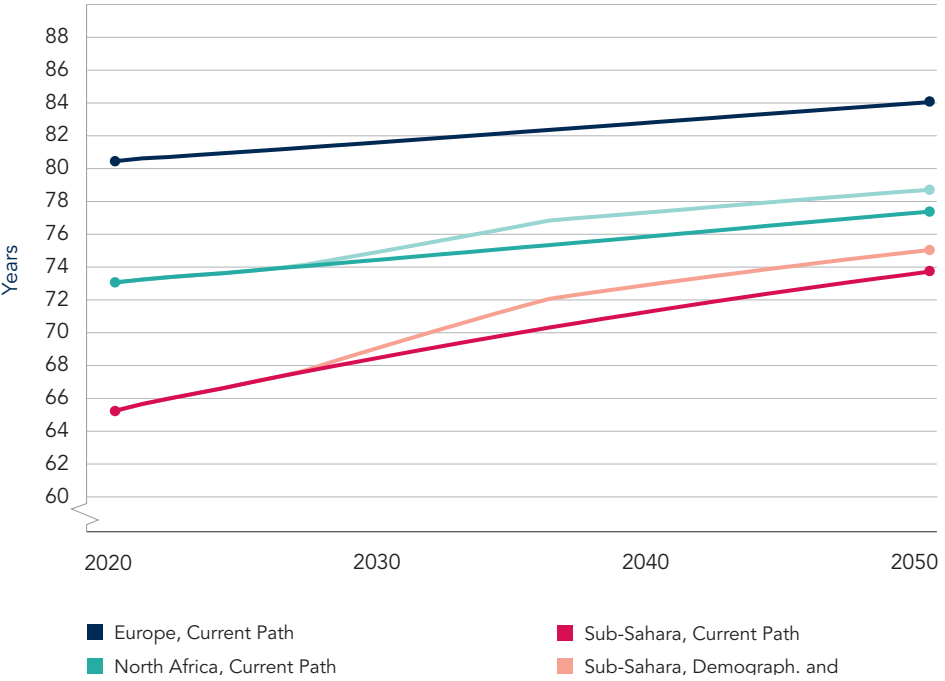
Chart 12 Population forecast for Africa and the world, Current Path forecast vs. Demographics and Health scenario, 2000–2100

Source: IFs 8.38 initialising from UNPD world population prospects data

Chart 13 shows the **life expectancy** for North Africa, Sub-Saharan Africa and Europe in the Current Path forecast and the Demographics and Health scenario from 2020 to 2050. By 2050, life expectancy in Sub-Saharan Africa in the Demographics and Health scenario will be 75.2 years (instead of 73.2 years in the Current Path forecast) compared to 84 years in Europe.

Chart 13 Life expectancy in North Africa, Sub-Saharan Africa and Europe, Current Path vs Demographics and Health scenario, 2020-2050

Source: IFs 8.38 initialising from UNPD world population prospects data

In the Demographics and Health scenario, **Africa will enter its potential demographic dividend in 2043 (a decade earlier than the Current Path forecast)**. Chart 14 presents the ratio for Africa in both the Current Path forecast and the Demographics and Health scenario, and the ratio for the world except Africa and Europe. Instead of a peak of two working-age people to every dependent in 2076, Africa will peak at more than 2.1 to every dependent in 2066, with attendant welfare and economic benefits. By contrast, Europe will exit a demographic window of opportunity in 2028, implying slower economic growth that will require additional capital investment and labour-saving technology to maintain GDP per capita growth.

Chart 14 Demographic dividend in selected regions, Current Path vs. Demographics and Health scenario, 2020–2100
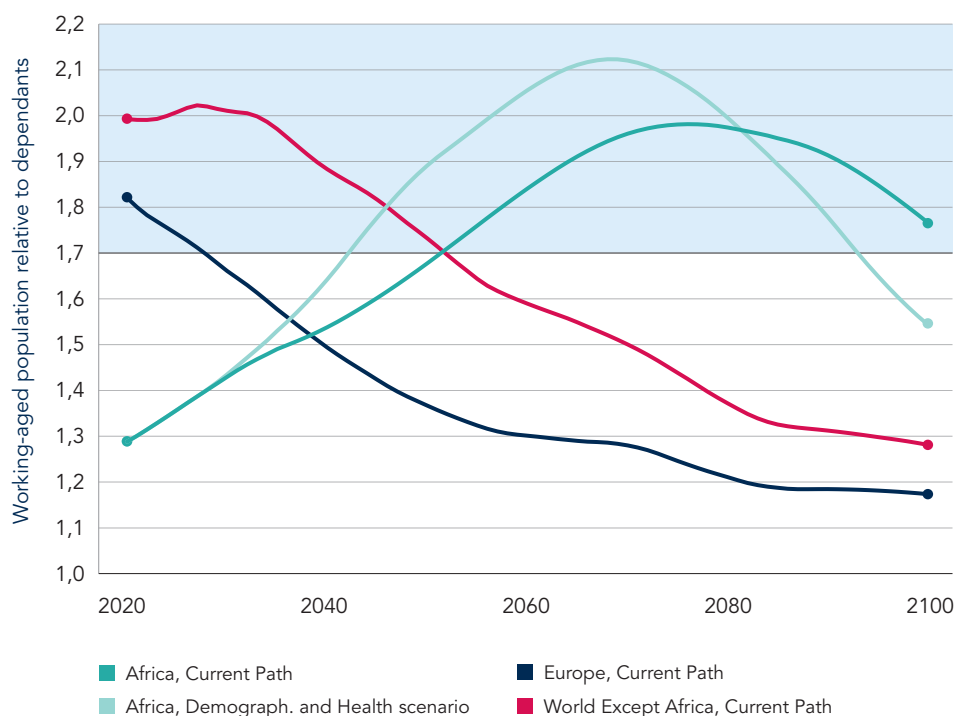
Source: IFs 8.38 initialising from UNDP data

The Demographics and Health scenario would result in a **total fertility rate of about 2.3 children per fertile woman across Sub-Saharan Africa by 2050** (as opposed to three children in the Current Path forecast). Rates in North Africa would also marginally decline. By comparison, the fertility rate in Europe would average 1.5 in 2050. In the Demographics and Health scenario, 59% of Sub-Saharan Africa's total population will be connected **to safely managed water services** in 2050 (instead of 50%). Instead of 39%, 47% of Sub-Saharan Africa's population will have access to **safely managed sanitation services**, with the balance using essential, limited or unimproved services such as open pit and bucket latrines.

Text box 2 Reinventing the toilet

Technological advances will drive the development of improved basic infrastructure at a lower cost. For example, since 2011, the Bill and Melinda Gates Foundation has invested over us$200 million in the 'Reinvent the Toilet' challenge[31]. Among the early successes was the Tiger Toilet, which costs about US$350 to install and requires no traditional sewer system. Instead, it uses tiger worms (*Eisenia fetida*, an earthworm species) that feed on human faeces.

Another way of measuring the impact of the Demographics and Health scenario is to use disability-adjusted life years (DALYs), a standard metric for capturing a country or region's disease burden. The DALY metric offers a way of accounting for the difference between a current situation and an ideal situation, where everyone lives up to the life expectancy in Japan (the country with the longest life expectancy globally), free of disease and disability. Early death translates to years of life lost, and sickness translates to years lost due to disability. One DALY represents the loss of the equivalent of one year of whole health.

For example, in 2023, Sub-Saharan Africa is estimated to have lost around 332 million years of life as a result of its high communicable disease burden. By 2050, that number will have **declined to 136 million years** as life expectancy improves in the Demographics and Health scenario, compared to 215 million years in the Current Path forecast, a difference of 37%. Non-communicable losses also decline when comparing the scenario with the Current Path forecast, by 11% in 2050. Because North Africa is much further along in the demographic transition, its benefits are much lower in the Demographics and Health scenario compared to the Current Path forecast.

Chart 15 shows the effects of the Demographics and Health scenario on the population structure and education outcomes for Sub-Saharan Africa by 2050, compared to the Current Path forecast.

31   Advancing Sanitation: 10 Years of Reinventing the Toilet for the Future - Gates Foundation. Accessed 4 May 2025. https://www.gatesfoundation.org/ideas/articles/sanitation-reinvent-toilet

Chart 15 Human capital distribution of Sub-Saharan Africa and EU in million people, Current Path forecast vs. Demographics and Health scenario, 2023 and 2050
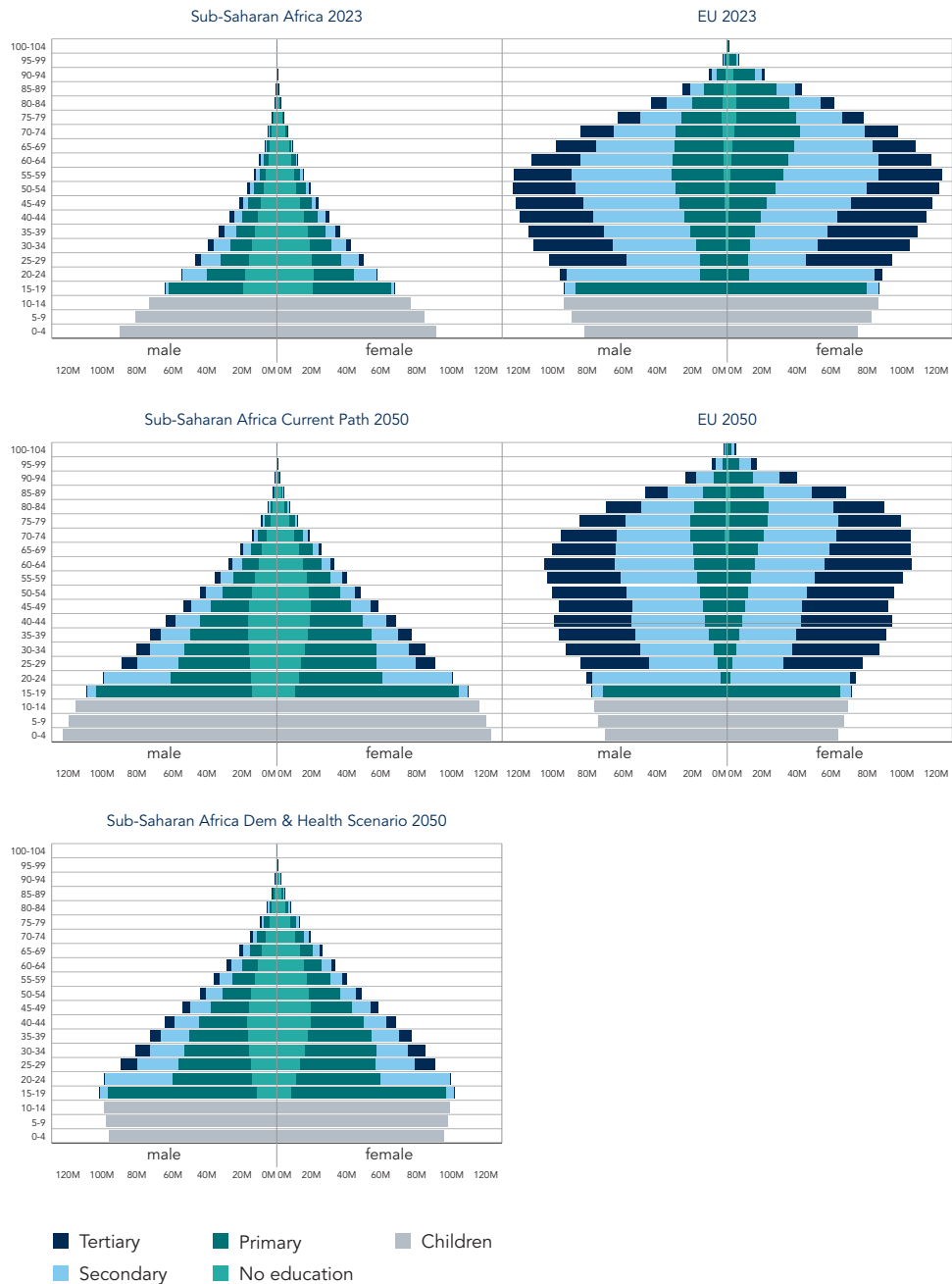
Source: IFS 8.38 initialising from UNPD data

In the Demographics and Health scenario, Africa will have a more mature population structure, with a distinctive bulge along the midriff, compared with the more youthful structure seen in the Current Path forecast, complemented by more significant percentages of persons with primary, secondary and tertiary education.

Chart 15 also presents the human capital distribution for Sub-Saharan Africa in 2023 and in 2050 in the Demographics and Health scenario. It contrasts that with the human capital distribution for the EU in 2023 and 2050. Note that this chart uses millions of people and not the percentage of persons per cohort. The x-axis therefore differs for Sub-Saharan Africa vs. the EU. Rapid progress is evident in Sub-Saharan Africa by 2050, both in educational attainment and in progress towards a demographic dividend with a sharp decline in the number of children, signifying an improvement in the contribution that labour makes to growth. Educational attainment in the EU will of course be significantly higher, even as its population declines.

Bij 2050, in the Demographics and Health scenario, **more Africans (as a percentage of the total) will enrol and complete their education**, since more funds will be available to spend on the smaller number of students. Mean years of education will increase, particularly for the younger cohorts, and education quality will also improve, given the larger pots of money now available for fewer students.

These effects are a function of reduced fertility and better health. Over time, the result will be a more productive labour force, more rapid economic growth and higher living standards.

8.2   On prosperity and poverty rates

The impact of the Demographics and Health scenario will be a smaller, healthier, wealthier and better-educated population. In 2050, Africa's average GDP per capita would be US$387 higher than the Current Path forecast. The average African in the 15–24 age group would have almost a year more education compared to the Current Path forecast; Africa would gain 119 million years of life due to lower levels of premature death or disability; and average life expectancy would have increased by two years. Also, 48 million fewer Africans would be considered extremely poor, with the most significant reductions in DR Congo, Nigeria and Madagascar – a remarkable testament to the contribution that family planning and better health care can make to Africa's fortunes. Although Africans would spend more on health and WaSH infrastructure in this scenario, these expenses would eventually be offset by more rapid growth to the extent that the African economy would be US$143 billion larger in 2050.

Chart 16 shows the decline in extreme poverty in millions per year for Sub-Saharan Africa (using US$2.15) in the Demographics and Health scenario compared with the Current Path forecast.

Chart 16 Extreme poverty head count for Africa, Current Path forecast vs. Demographics and Health scenario, 2020–2050
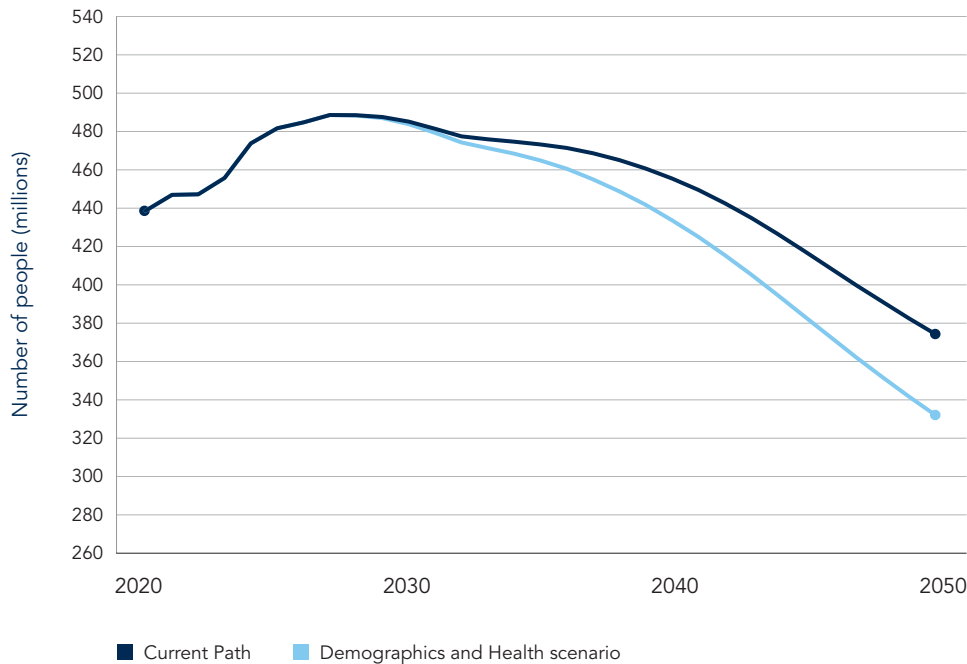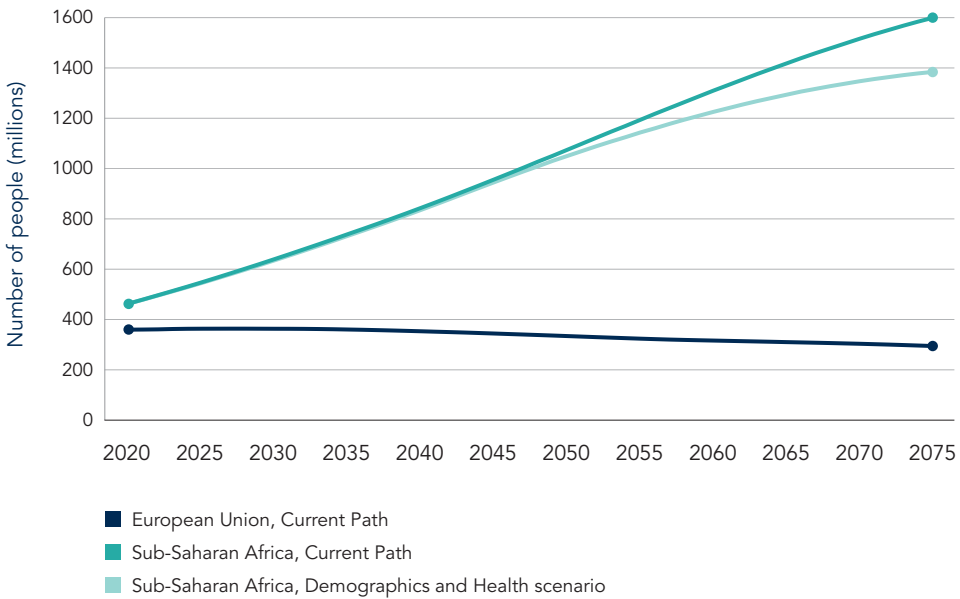

Source: IFs 8.38 initialising from UNPD world population prospects, WDI and PovcalNet data

Finally, because of its smaller population, Africa would emit the equivalent of 61 million tons less carbon dioxide from fossil fuel use compared to the Current Path forecast in 2050, and 244 million tons less in 2100.

9   Sub-Saharan Africa's demographic surplus

By 2050, the size of Sub-Saharan Africa's labour force will have increased from 505 million in 2023 to 1,058 million people in the scenario (marginally below 1,066 million on the Current Path, see Chart 17) **while the 2050 size of Europe's labour force will have declined from 370 million to 342 million.**

Chart 17 Labour force size in Sub-Saharan Africa and the European Union, 2020–2075

Source: IFs 8.38 initialising from WDI data

Because 61% of Sub-Saharan Africa's 2023 labour force depended on employment in the informal sector, many of these persons are surplus to formal sector requirements, given the absence of opportunities in the latter. Sub-Saharan Africa's surplus labour is already large and will increase over time. Therefore, this is not some future scenario, but it is already unfolding.

Leaving issues of populism and xenophobia aside for the moment, **Sub-Saharan Africa has the potential to compensate for the decline in the size of Europe's labour force**. The structural problem is that the rest of the world is investing in labour-saving technology. At the same time, the Sub-Saharan African labour force generally has less education than their

compatriots in Europe and has a higher disease burden. All of this can be overcome, but early action is required.

The potential downside of Sub-Saharan Africa's rapid population growth is also evident. Until fertility rates are significantly reduced, even the most spectacular economic growth rates will not be sufficient to reduce poverty and improve livelihoods substantially. Although trends are heading in the right direction, **much more urgent action is required to speed up the demographic transition in the continent's many low- and lower-middle-income countries**. The average annual rate at which the African economy expanded from 1963 to 2022 was 3.5%. Because Africa has a young and rapidly growing population, the 3.5% translates into less than 1% average improvement in gross domestic product (GDP) per capita. Meanwhile, average economic growth rates in the rest of the world (i.e. the world except Africa) over the same period were slightly lower, at 3.3%. However, because populations there expanded more slowly, GDP per capita grew more than twice as rapidly.

The Current Path forecast is for the African economy to expand by a healthy 4.4% over the next two decades, compared to the 2.6% average for the rest of the world (i.e. the world except Africa). **Because of rapid population growth, 4.4% will translate into GDP per capita growth of only about 1.2% annually in Africa and about 1.9% in the rest of the world. However, for Africa to close the gap in GDP per capita with the average for the rest of the world by 2045, growth rates in Africa would need to average 15%.** The main reason for the significant difference is that Africa's population will expand by 2.2% annually, while that in the rest of the world by only 0.4%. No country has been able to achieve - never mind sustain - such economic growth rates, and Africa is composed of 55 heterogeneous states.

With a rapidly expanding workforce and a growing consumer market, the African continent has the potential to become a significant economic hub – but success will depend on strategic investments in infrastructure, education, governance and innovation to drive sustainable and inclusive growth. In time, the constraint that Africa's large youthful populations place on improvements in income, service delivery and education will steadily decline and the contribution of labour to growth will increase. However, in the interim, governments will struggle to cope with the demands for education, health and other infrastructure. Given appropriate policies, **Africa will steadily generate a surplus labour force that could compensate for the decline in the European labour force**.

10   Harnessing and advancing Africa's demographic dividend

By **advancing its demographic transition**, Africa can **harness a potential demographic dividend**. Understanding this distinction is critical for designing effective, phased policy responses across the continent's diverse contexts.

Advancing the demographic transition requires reducing child mortality and fertility rates by expanding access to reproductive health services, improving education – particularly for girls – and investing in basic health and sanitation systems. These interventions shift population structures toward a lower share of dependents, laying the foundation for economic gains. Once fertility has declined and the working-age population rises relative to dependents, countries enter a demographic window of opportunity.

Harnessing on the demographic dividend then requires converting this more favourable age structure into economic and social returns. That demands job creation at scale, productivity growth, investments in physical and digital infrastructure and sound governance. It also requires forward-looking urban planning, financial inclusion and private sector development that can absorb a growing labour force.

10.1   Key conditions for advancing the demographic dividend

The key levers for advancing the demographic transition are well known. First, **access to quality health care, particularly maternal and child health services, is essential**. Reducing under-five and maternal mortality rates lowers the perceived need for large families. Second, **expanding access to voluntary modern contraception and reproductive health services** empowers women and couples to make informed choices about childbearing. Yet in 2023, only 32% of women of reproductive age in Sub-Saharan Africa used modern contraceptives, compared to more than 70% in North Africa. Approximately 25% of women of reproductive age (15–49) in the region have an unmet need for contraception, meaning they wish to delay or avoid pregnancy but are not using any contraceptive method[32].

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32   Ahinkorah, B.O., Ameyaw, E.K., and Seidu, A.A. 'Socio-economic and demographic predictors of unmet need for contraception among young women in sub-Saharan Africa: evidence from cross-sectional surveys'. Reprod Health 17, 163, 23 October 2020. https://doi.org/10.1186/s12978-020-01018-2

Third, and equally critical, is **educating girls and keeping them in school longer**. The longer a girl stays in school, the later she tends to marry and begin childbearing, leading to lower fertility rates and better intergenerational outcomes. Investments in **basic infrastructure**, especially water, sanitation and hygiene (WaSH), are also essential, as they reduce disease burdens and improve the health and nutrition of young children. These interventions are especially urgent in low-income, high-fertility countries, where progress toward the demographic transition remains slow.

Advancing the transition is also promoted through **social change**, including shifts in gender norms and cultural attitudes toward family size, child marriage and reproductive autonomy. While these norms are deeply embedded and evolve slowly, political leadership, media campaigns, and civil society engagement can help accelerate change.

The advancement phase is a precondition for harnessing the demographic dividend. Without reducing fertility and improving human development outcomes, countries remain stuck in a cycle of high dependency and constrained economic growth. For this reason, **policies that support health, education, gender equality and reproductive rights are not only social investments – they are also foundational economic strategies**.

10.2 Key conditions for harnessing the demographic dividend

Once the demographic transition has progressed such that the share of working-age people increases relative to dependents, Africans need to **harness the potential demographic dividend**. This phase requires transforming favourable demographics into tangible economic and developmental gains. Without deliberate and well-sequenced investments, the opportunity can easily be lost.

The foremost condition is **employment generation**. With millions entering the labour market each year, Africa must create jobs at an unprecedented scale. This will require both formal and informal sector growth, especially in labour-absorbing industries such as agriculture, agro-processing, construction and services. Without sufficient demand for labour, a youthful population can quickly turn from an asset into a liability, fuelling unemployment, urban poverty and political instability.

Education systems must also shift focus toward **skills development**, including vocational and technical training, digital literacy and alignment with labour market needs. Countries that have successfully harnessed their demographic dividend, such as South Korea and Vietnam, invested early in education systems that linked learning to productive economic sectors.

A third condition is **urban planning and infrastructure**. Rapid urbanisation presents both a challenge and an opportunity. When planned well, cities can be engines of growth, offering access to jobs, services and innovation. However, when growth outpaces infrastructure and service delivery, it leads to congestion, informality, and a declining quality of life. Investments in transport, housing, energy and digital connectivity will determine whether urbanisation supports or undermines the dividend.

Equally important is **sound governance**. Transparent institutions, predictable policies and efficient public service delivery are prerequisites for private investment, entrepreneurship and economic stability. Political stability and rule of law underpin the enabling environment that allows other sectors to thrive.

Finally, Africa's youthful population must be **fully included in economic and civic life**. That means promoting youth entrepreneurship, financial inclusion and meaningful participation in governance. It also means addressing barriers faced by young women in accessing jobs, credit and leadership roles.

Harnessing the demographic dividend is therefore not automatic. It requires **coordinated action across sectors and a clear sequencing of reforms**. Countries must move from investing in population health and education toward transforming economic structures and institutions. This second phase is as challenging as it is promising, but when aligned with strategic investments and good governance, it can be a powerful engine of growth.

Harnessing the demographic dividend will also require Africa to **adapt to growing climate risks**. Rising temperatures, erratic rainfall and extreme weather events already threaten livelihoods – particularly in agriculture, where many of Africa's youth are still employed. Rapid urbanisation will place further stress on natural resources and energy systems, especially where infrastructure is weak. To sustain development gains, governments must invest in climate-smart agriculture, renewable energy, resilient water systems and sustainable land use planning. Without these investments, climate change will undermine productivity, drive displacement, and limit the economic returns of a favourable age structure.

10.3   Diverging development paths and policy implications

Advancing and harnessing the demographic dividend carries **clear policy implications**: The different phases of Africa's demographic transition imply **divergent development trajectories**. Countries at the early, middle and late stages of this transition face distinct challenges and opportunities, and require **differentiated policy approaches** both domestically and from international partners.

Early-transition countries, where fertility and child mortality remain high, must first address the fundamentals: improved access to health care, education, particularly for girls, ensure safe water and sanitation, and voluntary family planning. These countries require long-term investment in human capital formation and basic infrastructure, as well as public awareness campaigns that encourage changes in social norms around child marriage and ideal family size. Without these foundations, their demographic profiles will continue to strain public services, hinder economic growth and increase vulnerability to climate shocks.

Mid-transition countries are now entering or approaching the demographic window of opportunity. These economies need to match their more favourable age structure with expanded labour market absorption, especially for youth. This calls for rapid scaling of vocational training systems, small and medium enterprise development, infrastructure investment and urban planning to prevent the entrenchment of informal settlements and chronic underemployment. These countries are also best positioned to benefit from industrial policy, agricultural transformation and digital innovation, particularly when supported by trade and regional integration strategies.

Late-transition and post-transition countries have different concerns. Fertility is already low, but unemployment, inequality and ageing are often rising. These countries must strengthen social protection systems, invest in the care economy and shift toward high-productivity sectors. For these economies, innovation, service sector dynamism and inclusive governance are more important than managing fertility. Support from international partners in these cases should focus on climate resilience, green transitions and competitiveness, not just population-related interventions.

These differentiated paths also have implications for development cooperation. External actors – including the Netherlands and the EU – must move beyond one-size-fits-all strategies and invest in **context-specific approaches** aligned with each country's demographic realities. For early-transition countries, this may mean prioritising primary health care systems and reproductive health; for mid-transition countries, co-investing in technical education and infrastructure; and for more advanced countries, supporting innovation ecosystems, higher education and long-term economic resilience.

Trade promotion has been a popular strategy in advancing Africa's development in Europe. It needs to be approached with care given the importance of improving the value-content of African exports - the key to more rapid economic growth. The most prominent initiative in this regard is the African Continental Free Trade Area (AfCFTA) that promises to boost intra-African

trade from its current low levels of 16–17% of exports, and foster industrialisation. The gravity model of trade is reflected in the reality that intra-African trade has a much higher value-content (consisting of manufactured and processed goods) than trade with non-African partners (that is dominated by primary commodities). At the moment, 15 African countries actively promote Economic Partnership Agreements (EPAs) with the EU that grant tariff preferences. The most elegant long-term solution would be to consolidate the patchwork of EPAs into a single, continent-to-continent trade arrangement between the African Union and EU. In the meanwhile:
– African countries should sequence their trade liberalisation to prioritise intra-African integration before full EPA rollout.
– Strengthen protections for nascent industries and sensitive sectors by excluding them from agreements of slower liberalisation while improving productivity in these sectors.
– African governments should focus on building regional value chains that supply the continental market to offset the lure of EU imports
– The partners should closely monitor import patterns as EPA tariff cuts progress.
– The EU should increase its Aid for Trade and development assistance to EPA partners, specifically to bolster their capacity to produce value-added goods. This includes funding for infrastructure, technical assistance to meet EU sanitary and phytosanitary standards (so African agricultural and food exports can succeed in Europe), and support for firms to move up value chains.
– To enhance intra-African trade in value-added products, African countries should develop and mutually recognise standards and regulations (for products, health, safety etc.) under the AfCFTA frameworks. This will make it easier for goods made in one African country to be sold in another – a crucial factor for building regional supply chains.

Africa's demographic transition is not linear, and policy frameworks must reflect this diversity. The continent's success in unlocking its demographic dividend will depend on tailoring actions to the phase each country is in, and ensuring that the right investments are made at the right time.

10.4   Challenges

To reap a more substantial and quicker demographic dividend, Sub-Saharan Africa needs to accelerate the current slow decline in fertility rates. While some countries have made significant progress in reducing birth rates, others, particularly in parts of West and Central Africa, continue to experience high fertility due to cultural norms, limited contraceptive access and low levels of female education. Addressing these barriers requires targeted interventions such as the provision of WaSH and the roll-out of modern contraceptives, including shifts in social attitudes and gender dynamics.

Access to WaSH infrastructure is a crucial measure of a government's ability to meet basic needs, yet progress lags far behind global targets. Poor infrastructure exacerbates Africa's high burden of infectious diseases while the continent simultaneously faces rising rates of non-communicable diseases, creating a complex double burden of disease. Without urgent investment, these structural challenges will continue undermining economic growth and human development.

Africa's health systems face a dual challenge: combating persistent infectious diseases while increasingly dealing with a rise in non-communicable diseases such as diabetes and cardiovascular conditions. This double burden strains already overstretched health budgets and requires strategic health sector reforms that simultaneously address preventive and curative care.

The COVID-19 pandemic exposed Africa's vulnerabilities, forcing governments to divert resources from primary health care, education and reproductive health services. The associated disruptions led to increased unwanted pregnancies, higher rates of gender-based violence and a decline in access to contraception. In response, African leaders launched initiatives like the Partnership for African Vaccine Manufacturing (PAVM) to reduce dependence on external aid and ensure more equitable vaccine distribution. However, achieving long-term health security will require deeper structural reforms, including investments in domestic pharmaceutical production and stronger health care systems.

Another major challenge is Africa's labour market absorption capacity. With millions of young people entering the workforce each year, the continent faces mass underemployment and informal sector expansion. Most economies are not generating enough jobs to keep up with population growth, and the lack of formal employment opportunities has led to increased economic uncertainty, political unrest, and migration pressures. High informality also limits tax revenues, constraining a government's ability to fund essential services, expand infrastructure or invest in productivity-enhancing programmes.

Infrastructure gaps also present a significant hurdle. Power shortages, poor transportation systems and weak digital networks limit industrial growth and discourage foreign investment. Without substantial improvements in physical infrastructure, many African economies will struggle to compete in global markets and fully integrate into international trade systems.

Climate change threatens Africa's agricultural productivity by altering rainfall patterns, increasing droughts and reducing soil fertility, putting millions at risk of food insecurity. Rising temperatures and water scarcity could also

drive displacement, heighten resource competition and exacerbate existing socio-economic vulnerabilities, making climate adaptation a critical priority.

Without addressing these challenges, Africa risks missing out on its demographic dividend and instead facing mounting economic and social pressures. In fragile and conflict-affected states, these challenges are magnified by political instability and weak institutions, which further undermine efforts to harness the demographic dividend.

10.5   **Policies to promote Africa's demographic dividend**
Unlocking the demographic dividend in Africa requires a phased and context-specific policy approach. Countries at different stages of the demographic transition – early, mid and late – face distinct needs. Policies should therefore reflect where countries are in the transition and be sequenced accordingly.

Advancing the demographic transition: policies for early-transition countries
For countries still in the early stage of the transition (e.g. Niger, Chad, DR Congo), the focus must be on:
– Expanding voluntary access to modern contraception and family planning services
– Reducing under-five and maternal mortality through stronger primary health care systems
– Investing in girls' education, especially in rural areas, and addressing early marriage
– Strengthening water, sanitation and hygiene (WaSH) infrastructure, particu-larly in rural communities
– Supporting behavioural change campaigns that challenge social norms around large family size and gender inequality
– Enhancing governance and service delivery capacity at the local level

These interventions will improve child survival, reduce fertility rates and set the demographic transition in motion.

Harnessing the demographic dividend: policies for mid- and late-transition countries
Countries already in or nearing their demographic window (e.g. Kenya, Ghana, Tunisia) must now translate demographic potential into economic returns through:
– Labour market reforms that improve formal sector job creation and youth employment

– Investment in technical and vocational education and digital skills
development
– Urban planning that integrates housing, transport and service delivery for
growing urban populations
– Expanding access to reliable electricity, digital infrastructure and financial
inclusion
– Enhancing governance, regulatory certainty and anti-corruption measures to
stimulate private investment
– Investing in climate-resilient infrastructure, sustainable agriculture and
disaster preparedness
– Building inclusive social protection systems to support vulnerable groups
and manage economic shocks
– Upstream support that will encourage foreign direct investment and the
location of industry in Africa

These countries must also prepare for future ageing pressures by investing in
health, innovation and productivity.

Targeting differentiated support
Policymakers and international partners must adapt their support strategies to
these different phases. For instance:
– Early-transition countries need to strengthen their health systems and invest
in reproductive health.
– Mid-transition countries benefit most from support to education-to-em-
ployment pathways and infrastructure development.
– Late-transition countries require assistance in managing inequality, ageing
and competitiveness.

A one-size-fits-all approach will not suffice. Instead, phased, tailored and
institutionally grounded policies are essential for transforming demographic
potential into long-term development gains.

10.6   Implications for the Netherlands and Europe
Europe and Africa are undergoing opposing demographic trajectories.
As Europe's population ages and its labour force contracts, Africa's youthful
population continues to grow. This demographic divergence presents strategic
opportunities and shared challenges. Sub-Saharan Africa and the Netherlands
have a significant opportunity to partner for mutual prosperity, stability and
sustainability.

From a Dutch and broader EU perspective, supporting Africa's demographic
transition is both a moral imperative and a strategic investment. For countries
still advancing the transition, partnerships can focus on health systems

strengthening, access to family planning and education – areas where Dutch expertise and development cooperation already play a role. For countries further along, support could prioritise vocational training, private sector development, climate-resilient infrastructure and urban planning.

Labour mobility is another area where interests align. With labour market shortages projected across many EU member states, structured, legal migration frameworks can help meet skills gaps while providing economic opportunity for young Africans. Programmes such as the EU Talent Partnerships and pilot circular migration schemes could be expanded and tailored to Africa's mid-transition economies, where the pressure of youth unemployment is especially acute. These efforts require clear regulatory frameworks, ethical recruitment standards and investments in skills development that benefit both origin and destination countries.

Migration should not only be approached as a security or humanitarian issue, but also as a development tool once African countries enter a demographic window of opportunity. For this to work, migration cooperation must be embedded within broader investment in job creation, digital infrastructure, education and climate resilience in countries of origin, especially in fragile contexts where migration is driven by distress rather than opportunity.

The Netherlands and Europe also have a role in supporting climate adaptation and green transitions, particularly for countries most vulnerable to environmental shocks. These shocks threaten food systems, livelihoods and urban infrastructure, potentially increasing migration pressures. Co-investing in climate-smart agriculture, energy and water systems can help stabilise populations and foster long-term resilience.

Lastly, Europe's own demographic and economic sustainability depends on external partnerships that work. Supporting Africa in advancing and harnessing its demographic dividend is one of the most effective long-term strategies to promote global equity, manage migration, and ensure shared economic prosperity. The dividend, if realised, will benefit not just the continent, but the whole world.

11   Conclusion

Africa's population structure will undergo profound changes in the coming decades, driven by shifts in fertility rates, life expectancy and urbanisation. As the continent advances through its demographic transition, the resulting changes in age distribution, workforce composition, and dependency ratios will have far-reaching implications for economic growth, social services and development planning. Understanding and responding to these trends is crucial for policymakers to harness Africa's demographic dividend while mitigating the challenges of rapid population growth and shifting generational dynamics.

This transition presents a critical window to accelerate development and raise living standards. Yet, without targeted investment in education, health care, infrastructure and climate resilience, the continent risks missing this opportunity. Governments, businesses and international partners – including the Netherlands and the EU – must work together to ensure that Africa's demographic shift leads to broad-based gains, rather than deepening inequality and instability.

While the Demographics and Health scenario shows real potential for progress, these reforms alone will not be enough to close the growing income gap between Africa and the rest of the world. Structural shifts in governance, economic diversification and innovation are essential.

Harnessing Africa's demographic dividend is not guaranteed. It depends on long-term vision, sound policy and sustained investment. Demographic trends offer an unprecedented opportunity, but policy and governance will determine whether that potential is fulfilled.

The Netherlands and the EU have a strong role to play in this shared future: through strategic investment, education and technology partnerships, opportunities for investment and trade, and the co-creation of resilient infrastructure. Supporting Africa's demographic journey is not only a matter of global equity, but also a shared interest in long-term stability and prosperity. As a global knowledge partner in water management, education, logistics and governance, the Netherlands is well placed to support Africa's transition: advancing stability and resilience, but also unlocking shared opportunities for trade, innovation and labour cooperation.

References

Advancing Sanitation: 10 Years of Reinventing the Toilet for the Future - Gates Foundation. Accessed 4 May 2025. https://www.gatesfoundation.org/ideas/articles/sanitation-reinvent-toilet.

Agriculture - ISS African Futures. Accessed 4 May 2025. https://futures.issafrica.org/thematic/04-agriculture/.

Ahinkorah, B.O., Ameyaw, E.K., and Seidu, A.A. 'Socio-economic and demographic predictors of unmet need for contraception among young women in sub-Saharan Africa: evidence from cross-sectional surveys'. *Reprod Health* 17, 163, 23 October 2020. https://doi.org/10.1186/s12978-020-01018-2.

AUDA-NEPAD. 'Agenda 2063: Second Ten-Year Implementation Plan (2024–2033)'. Accessed 4 May 2025. https://www.nepad.org/publication/agenda-2063-second-ten-year-implementation-plan-2024-2033.

Cincotta, R.P. 'Opening the Demographic Window: Age Structure in Sub-Saharan Africa'. *New Security Beat* (blog), 26 October 2017. https://www.newsecuritybeat.org/2017/10/opening-demographic-window-age-structure-sub-saharan-africa/.

Cincotta, R.P., Engelman, R., and Anastasion, D. 'The Security Demographic: Population and Civil Conflict After the Cold War'. Washington, DC: Population Action International, 2003.

Dattani, S., Rodés-Guirao, L., and Roser, M. 'Fertility Rate'. *Our World in Data*, 24 February 2025. https://ourworldindata.org/fertility-rate.

Demographics - ISS African Futures. Accessed 4 May 2025. https://futures.issafrica.org/thematic/03-demographic-dividend/.

DHS Standard Demographic and Health Survey (DHS) | GHDx. Accessed 4 May 2025. https://ghdx.healthdata.org/series/dhs-standard-demographic-and-health-survey-dhs.

Education - ISS African Futures. Accessed 4 May 2025. https://futures.issafrica.org/thematic/06-education/.

Frederick S. Pardee Institute for International Futures. Accessed 4 May 2025. https://korbel.du.edu/pardee/.

Health and WaSH - ISS African Futures. Accessed 4 May 2025. https://futures.issafrica.org/thematic/05-health-and-wash/.

International Futures - Josef Korbel School of International Studies. 'International Futures'. Accessed 4 May 2025. https://korbel.du.edu/pardee/download-ifs/.

McKinsey & Company. 'The Overlooked Revolution for Business in Africa'. Accessed 4 May 2025. https://www.mckinsey.com/featured-insights/middle-east-and-africa/africas-overlooked-business-revolution.

Dutch Ministry of General Affairs. 'wrr - The Netherlands Scientific Council
          for Government Policy'. Accessed 4 May 2025. https://english.wrr.nl/.

Ritchie, H., and Roser, M. 'Age Structure'. *Our World in Data*, 20 September
          2019. https://ourworldindata.org/age-structure.

Roser, M. 'Demographic Transition: Why Is Rapid Population Growth
          a Temporary Phenomenon?' *Our World in Data*, 1 June 2023.
          https://ourworldindata.org/demographic-transition.

Studwell, J. How Africa Works: success and failure on the world's last
          developmental frontier, forthcoming

Technical - afi. Accessed 4 May 2025. https://futures.issafrica.org/about/.

undp. 'Advancing Inclusive Development: Policy Options for Burkina
          Faso, Guinea, Gabon, Mali and Niger'. Accessed 4 May 2025.
          https://www.undp.org/africa/publications/advancing-inclusive-
          development-policy-options-burkina-faso-guinea-gabon-mali-and-
          niger.

Wittgenstein Centre. Accessed 4 May 2025. https://www.wittgensteincentre.
          org/en/index.htm.

Women and Men in the Informal Economy: A Statistical Picture. International
          Labour Office, Geneva: ilo, 2018. https://www.ilo.org/sites/default/
          files/wcmsp5/groups/public/@dgreports/@dcomm/documents/
          publication/wcms_626831.pdf.

World Cities Report 2020: The Value of Sustainable Urbanization. United
          Nations Human Settlements Programme (un-Habitat), 2020.
          https://unhabitat.org/sites/default/files/2020/10/wcr_2020_report.
          pdf.

World Fertility and Family Planning 2020 - Highlights. United Nations
          Department of Economic and Social Affairs, Population Division, 2020.
          https://www.un.org/en/development/desa/population/publications/
          pdf/family/World_Fertility_and_Family_Planning_2020_Highlights.
          pdf.

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