



Algeria

Algeria: Scenarios

Blessing Chipanda

Last updated 26 November 2024 using IFs v7.84

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Algeria: Scenarios

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Relationship between scenarios

Chart 9: Current Path and scenarios

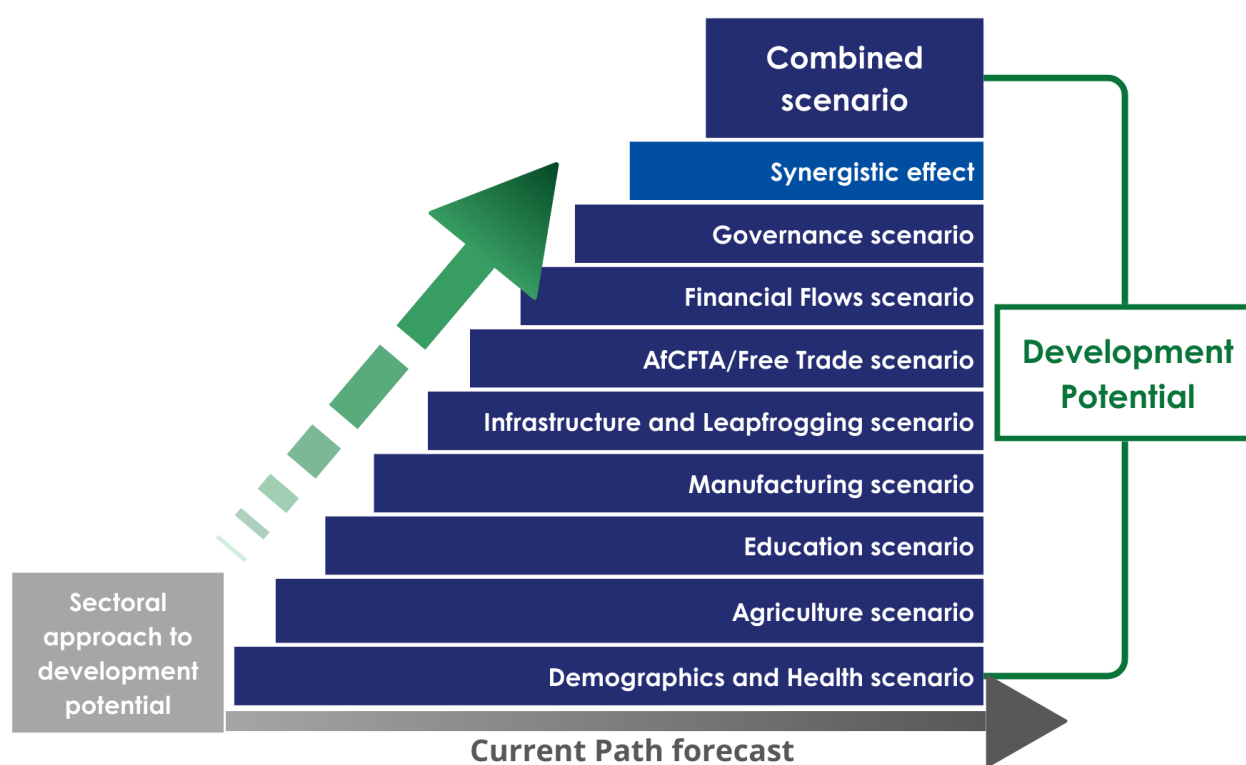


Chart 9 depicts the relationship between the Current Path, the various sectoral scenarios and the Combined scenario.

The **Current Path** is a dynamic scenario in our modelling that imitates continuing current policies and environmental conditions.

The eight sectoral scenarios are each explained in the various themes on the website and the impact on each is compared with the Current Path and a Combined scenario. The eight scenarios are:

- A more rapid **demographic** transition and investments in better **health** and water, sanitation and hygiene (WaSH) infrastructure,
- Better and more **education** (looking at quantity, quality and relevance),
- Large **infrastructure** and **leapfrogging** (the impact of renewables, ICT and the more rapid formalisation of the informal sector),
- Food security and an **agricultural** revolution,
- A low-end **manufacturing** transition,
- The full implementation of the **African Continental Free Trade Area (AfCFTA)**,
- More inward **financial flows** (consisting of aid, foreign direct investment, remittances and illicit financial flows), and
- Better **governance** (consisting of stability, capacity and inclusion).

The **Combined scenario** is a combination of all eight sectoral scenarios.

The impact of these scenarios on **jobs/employment** and **greenhouse gas emissions and energy** are presented in separate themes.

A final theme models the effect of alternative **global scenarios** on Africa's development potential.

Demographics and Health scenario

Chart 10: Demographics and Health scenario

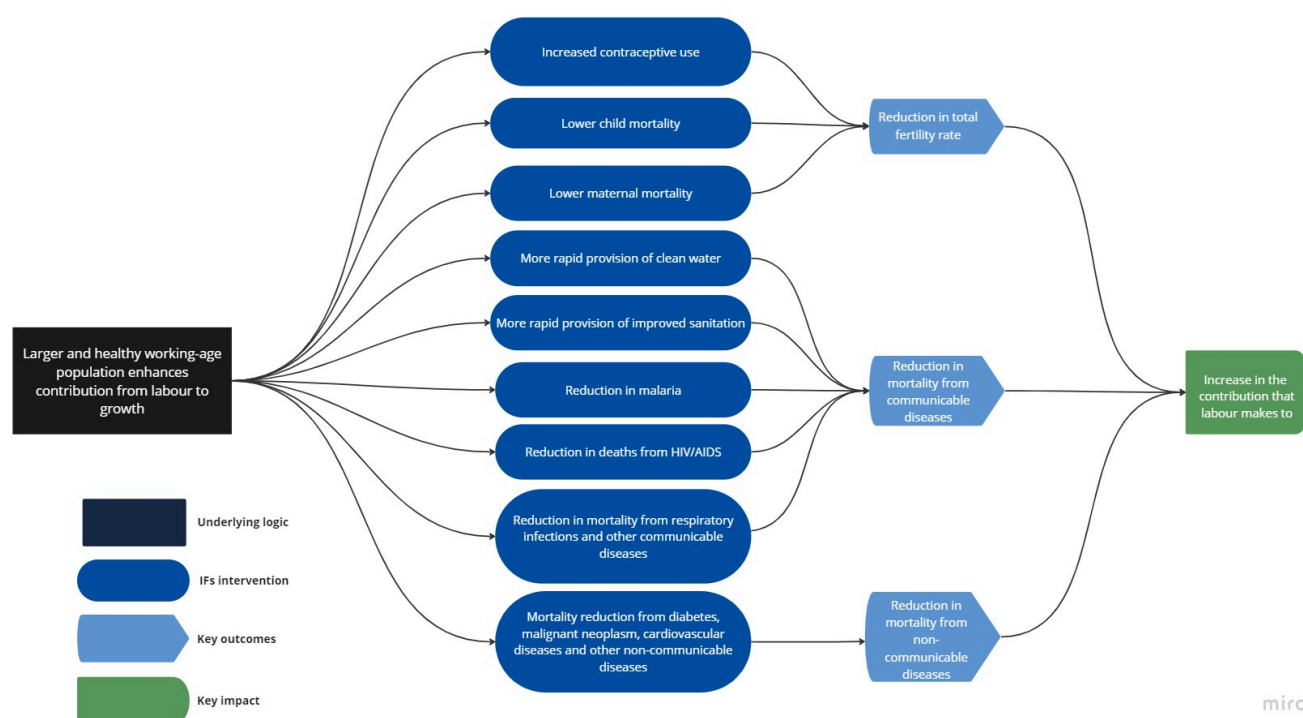


Chart 10 presents the structure of the Demographics and Health scenario that advances the demographic dividend and improves health.

The Demographics and Health scenario consists of reasonable but ambitious reductions in child and maternal mortality ratio, increased access to modern contraception and reductions in the mortality rates associated with both communicable diseases (e.g., AIDS, diarrhoea, malaria and respiratory infections) and non-communicable diseases (e.g. diabetes), as well as improvements in access to safe water and better sanitation.

Visit the themes on [Demographics](#) and [Health/WaSH](#) for more detail on the scenario structure and interventions.

Free healthcare was introduced in Algeria in 1974. In 1984, the government introduced reforms that shifted the health system from a curative to a preventive one more suited to its then youthful population with high levels of communicable diseases. The results were impressive. For example, compared to 1970, when the infant mortality rate was 106 deaths per 1 000 live births, by 1990 it had fallen to just 41. In 2020, Algeria's infant mortality rate was estimated at roughly 22 deaths per 1 000 live births and by 2040 it will drop to 17. However, under current policies, Algeria will not achieve the aspirational objective of the SDGs to end preventable deaths of newborns and children under five by 2030.

Algeria's maternal mortality ratio was estimated at 106.4 deaths per 100 000 live births in 2019. The country is on track to achieve the SDG target of fewer than 70 deaths per 100 000 live births in around 2028.

Although the country has continued to invest in its health sector, it faces considerable pressure as its ageing population needs inherently more expensive care for non-communicable diseases. This is complicated by a shortage of [healthcare professionals](#) and social inequalities in the country. Deaths from communicable diseases are low when compared to

sub-Saharan Africa. Other communicable diseases^[1] are more common among infants, while respiratory infections are more prevalent in the older cohorts.

In 2019, life expectancy at birth in Algeria was estimated at 77.7 years. By 2034, it will reach 80, which is significantly higher than that for lower-middle-income and upper-middle-income African countries.

Chart 11: Urban and rural population in Current Path and Demographics and Health scenario, 1990-2043

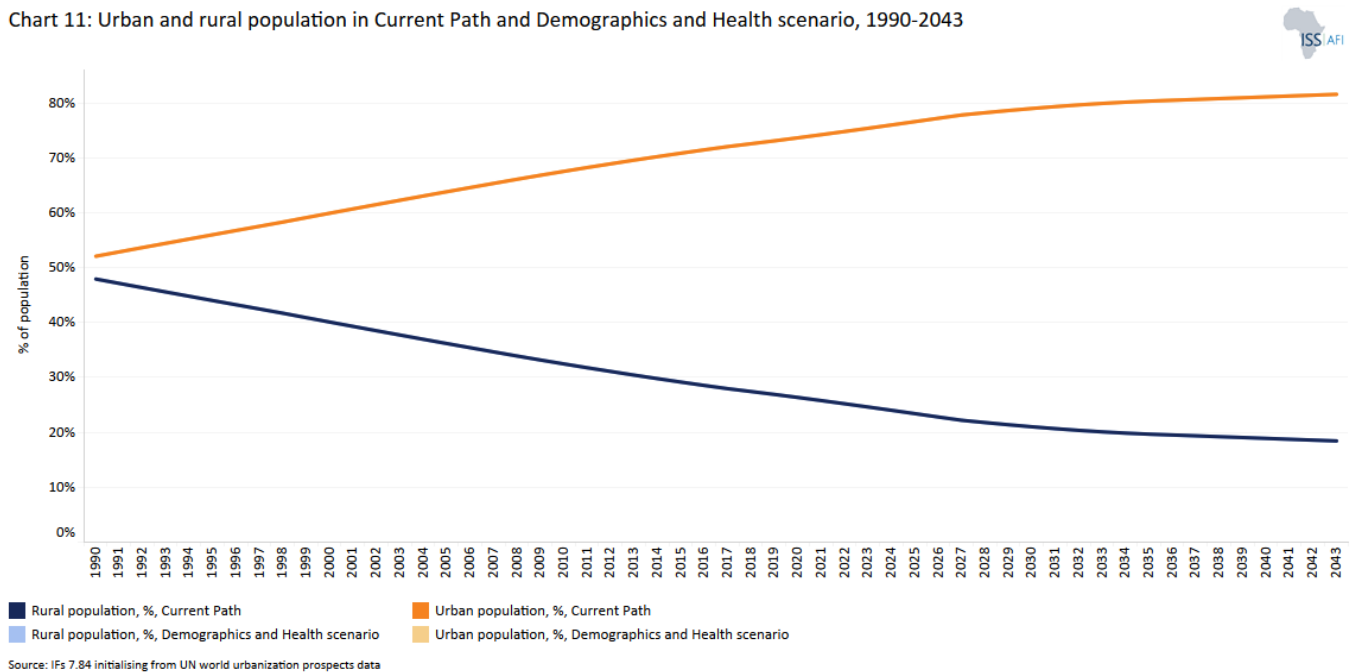


Chart 11 compares urban and rural populations in the Current Path and the Demographics and Health scenario from 1990 to 2043. The reader can toggle between Current Path and scenario.

The Demographics and Health scenario will slightly reduce Algeria's 2043 population, affecting rural and urban areas. In the scenario, Algeria's total population will reduce by 0.4% relative to the Current Path in 2043—from about 58.6 million to nearly 58.4 million people. The rural population will decline by about 0.5%, while the urban population will decrease by 0.4%.

Chart 12: Infant mortality rate in Current Path and Demographics and Health scenario, 2019-2043

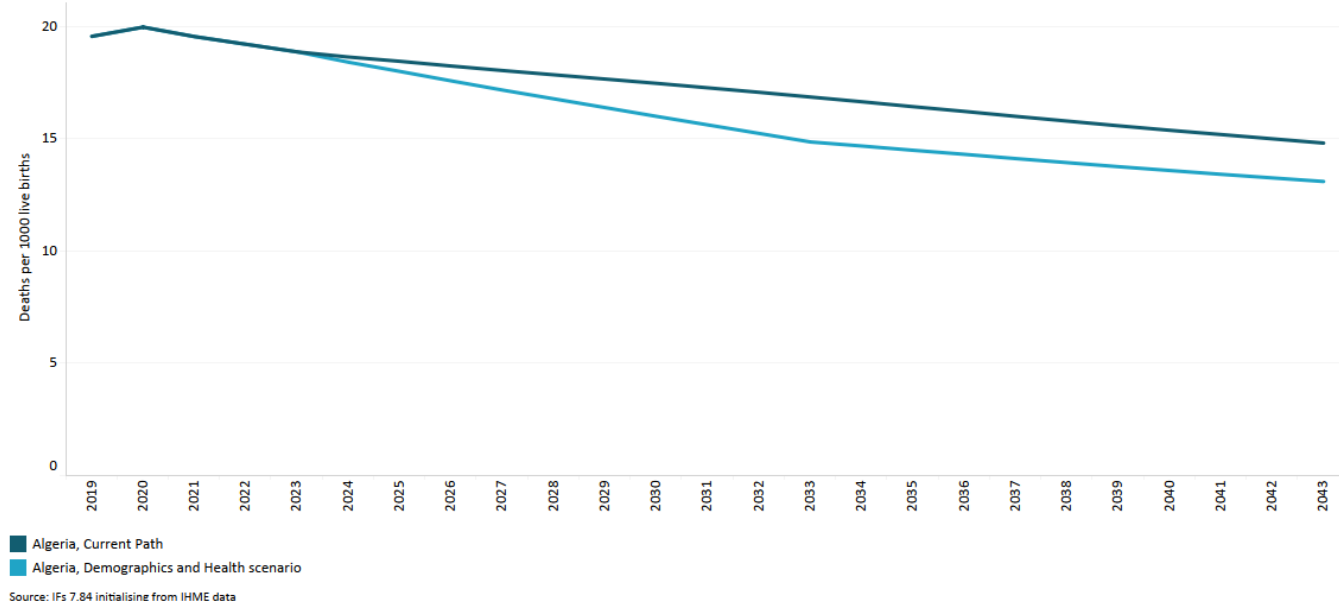


Chart 12 presents the infant mortality rate in the Current Path and the Demographics and Health scenario from 2019 to 2043.

Infant mortality rate is the probability of a child born in a specific year or period dying before reaching the age of one. It measures the child-born survival rate and reflects the social, economic and environmental conditions in which children live, including their healthcare. It is measured as the number of infant deaths per 1 000 live births and is an important marker of the overall quality of the health system in a country.

In 2019, the infant mortality rate in Algeria was 20.1 deaths per 1 000 live births—a remarkable decline from an average of nearly 65.5 deaths per 1 000 live births in the 1980s. This threefold decline has placed Algeria’s infant mortality rate far below the average of 44.8 deaths for other lower-middle-income African countries in 2019.

The Demographics and Health scenario will reduce Algeria’s infant mortality rate from 14.8 deaths per 1 000 births (Current Path) to 13.1 deaths per 1 000 live births by 2043. This is a reduction of about 1.7 deaths per 1 000 births. The country would achieve the SDG target of 12 deaths per 1 000 live births by 2051—12 years earlier than in the Current Path.

In addition, in the Demographics and Health scenario, the total fertility rate will decrease from 2.1 births per fertile woman (Current Path) to 2.0 births in 2043. Life expectancy will increase to 81.1 years—an increase of 0.6 years relative to the Current Path and about 8.4 years more than the projected average for Africa-OLMICs in 2043.

Chart 13: Demographic dividend in the Current Path forecast and the Demographics and Health scenario, 1990-2043

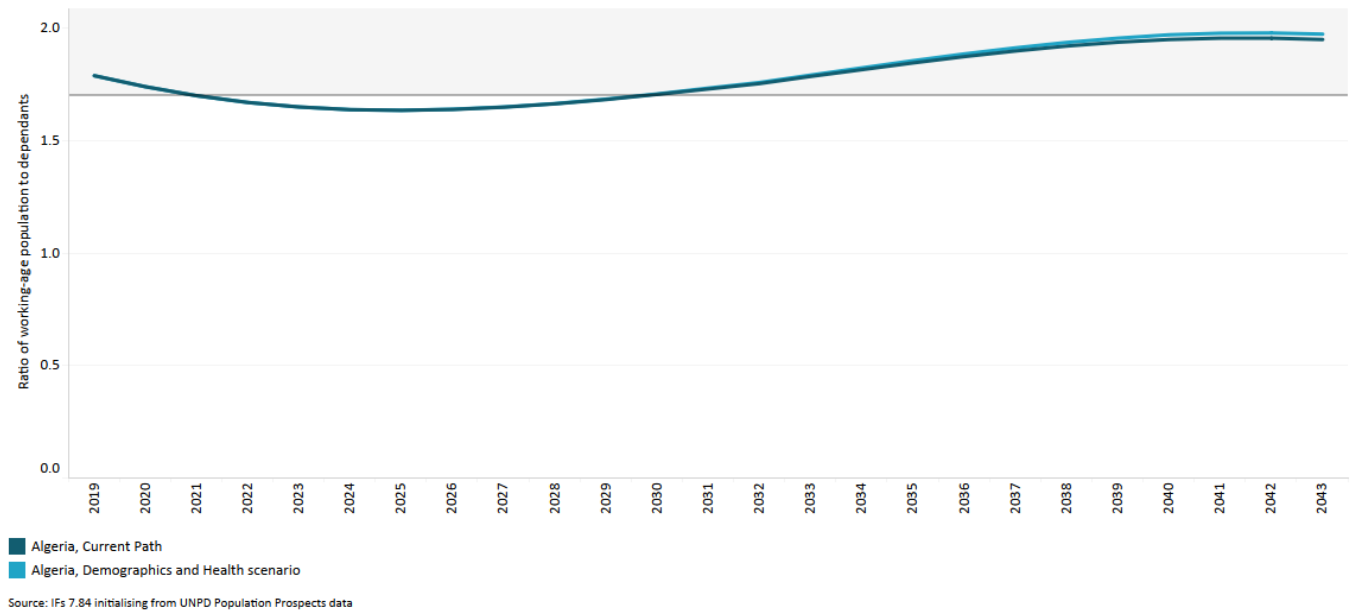


Chart 13 presents the demographic dividend in the Current Path and in the Demographics and Health scenario from 2019 to 2043.

The demographic dividend is the economic growth opportunity that opens up by having a proportionally larger working-age population relative to dependants. When a family has a larger number of people with decent jobs, and fewer children and elderly persons (65+ years) they need to take care of, the family can save and invest more in the economy. When this happens on a large scale, a country can benefit from a boost in its growth.

This study uses the ratio of working-age persons to dependants, i.e. the size of the labour force (between 15 and 64 years of age) relative to dependants (children below 15 years and elderly people above 64 years) as set out in the [Demographics theme](#). In Algeria, the age group between 15 and 64 years old accounted for approximately 63% of the total population in 2021.

A window of opportunity opens when the ratio of the working-age population to dependants is at least 1.7-to-1, meaning that for every dependant, there are 1.7 workers. When there are fewer dependants to take care of, it frees up resources for investment in both physical and human capital formation. Studies have shown that about one-third of economic growth during the East Asia economic ‘miracle’ can be attributed to the large worker bulge and a relatively small number of dependants.

However, the growth in the working-age population relative to dependants does not automatically translate into rapid economic growth unless the labour force acquires the needed skills and is absorbed by the labour market. Without sufficient education and employment generation to successfully harness their productive power, the growing labour force (especially those in urban areas) could increasingly become frustrated with the lack of job opportunities leading to social tension and even civil instability.

The interventions in the Demographics and Health scenario have a marginal impact on Algeria’s demographic dividend. In the scenario, by 2043, the ratio of the working-age population to dependants in Algeria will slightly increase from 1.95-to-1 (Current Path) to 1.97-to-1. This translates into a GDP per capita gain of US\$76.3 relative to the Current Path. The focus on family planning, education and investments in the health sector can benefit Algeria.

Agriculture scenario

Chart 14: Agriculture scenario

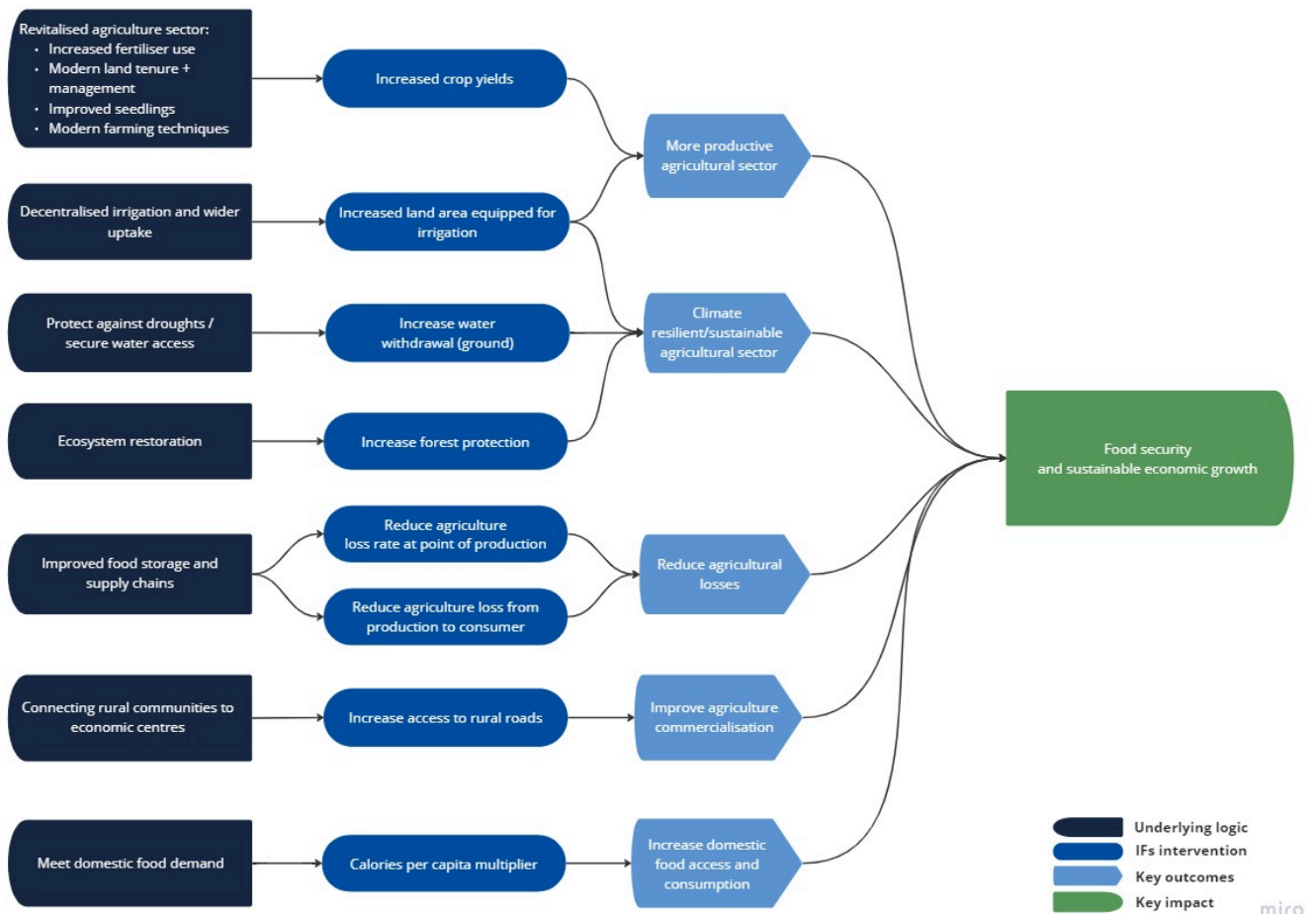


Chart 14 sets out the composition of the Agriculture scenario to advance food security.

The Agriculture scenario represents reasonable but ambitious increases in yields per hectare (reflecting better management and seed and fertiliser technology), increased land equipped and under irrigation and reductions in food loss and waste. We use increased calorie consumption as a proxy for food self-sufficiency above food exports as a desirable policy objective.

The increase in forest protection reflects sustainable land use practices.

Visit the theme on [Agriculture](#) for our conceptualisation and details on the scenario structure and interventions.

Owing to the vast expanse of the Sahara Desert, [Algeria](#) has only about 8.4 million hectares of arable land, which is less than 4% of its total land area. Just over 50% of arable land is dedicated to cultivating crops, mostly cereals and pulses. As Algeria is heavily reliant on oil and gas exports (aka the Dutch disease), an oil price boom may lead to a significant appreciation of its currency that will cause a contraction of its non-resource sectors, particularly agriculture and manufacturing sectors. Moreover, global warming is causing serious drought concerns in the region, such as below-average rainfall, with pockets of drought constraining yields in 2020.

Since there is limited scope to increase land under cultivation, intensification is the most viable pathway to improve efficiency in agriculture. This involves increasing land under irrigation, using better seeds and fertilisers and introducing modern farming practices. Additionally, reductions in loss and waste from production to consumption could help to meet food demand.

In 2019, this sector employed approximately 9.6% of the **working-age population** and accounted for 12% of the country's GDP, marking a rise from its 8.5% contribution in 2010. Its significance had waned after independence as governments prioritised industrialisation.^[2]

Lack of investment, years of government restructuring, limited water resources and dependence on rainwater, and state-controlled land ownership policies have constrained improvements in **agricultural production**.

In 2019, Algeria's agriculture sector accounted for 12.3% of GDP, which was about 3.3 percentage points below the average for lower-middle-income African countries. The contribution of the sector to GDP will decline to about 9.1% of GDP by 2043 in the Current Path.

Through various National Agricultural Development Plans (PNDAs) since 2000, agricultural yields have improved although the sector is generally less productive compared to Algeria's income-group peers. Algeria's average crop yield of 3 metric tons per hectare is closer to the average for low-income African countries (2.6 tons per hectare).

Because of poor yields, agricultural demand has outstripped supply since the 1970s (see Chart 15), making Algeria heavily dependent on food imports. This dependence makes the nation susceptible to inflationary pressures in the global market, with approximately US\$12.8 billion worth of agricultural products imported in 2019.

Chart 15: Import dependence in the Current Path and Agriculture scenario, 2019-2043

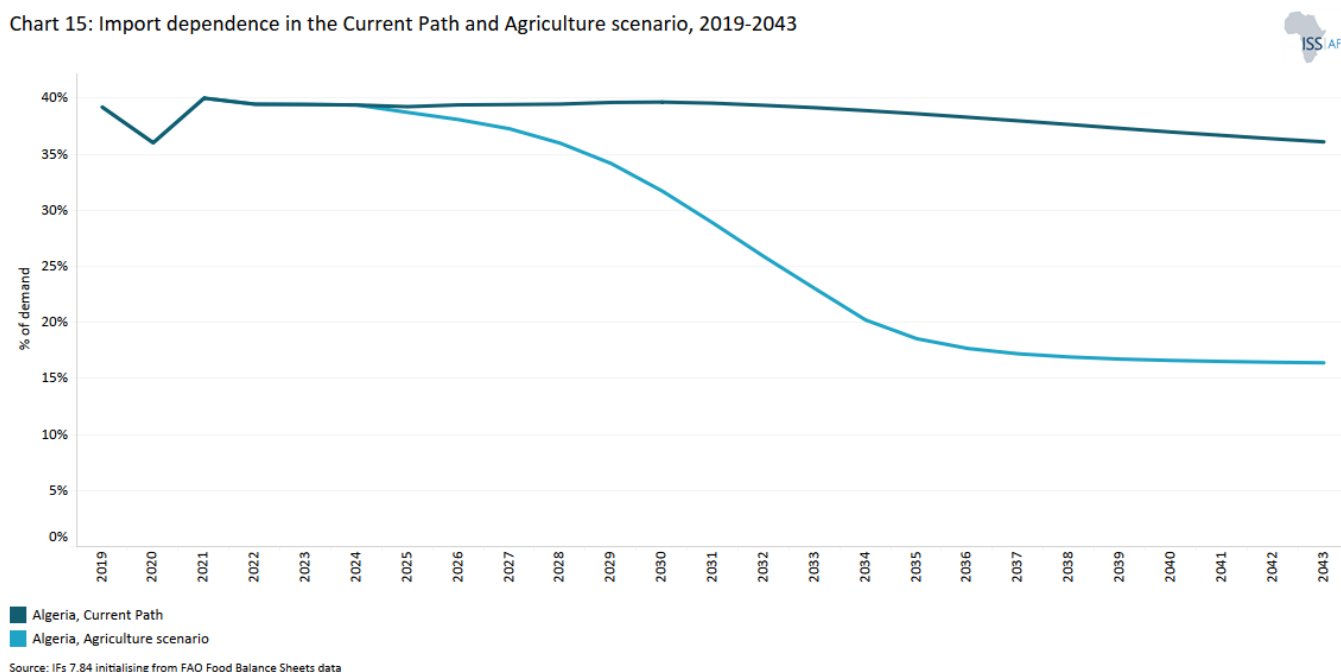


Chart 15 presents the import dependence in the Current Path and the Agriculture scenario from 2019 to 2043.

The data on agricultural production and demand in our modelling initialises from data provided on food balances by the Food and Agriculture Organization (FAO). The model contains data on numerous types of agriculture but aggregate its

forecast into crops, meat and fish, presented in million metric tons. Chart 15 shows agricultural production and demand as a total of all three categories.

In the Current Path, Algeria's crop produced was estimated at 26.7 million metric tons in 2019—a significant increase from the 5.4 million metric tons produced in 1990. Algeria's 2019 crop demand was estimated at 41.8 million metric tons, creating an unmet demand of 15.1 million metric tons. The Current Path crop demand will increase to about 55.3 million metric tons, while production will increase to just 33.2 million metric tons by 2043. This illustrates a growing demand for foodstuff that will be unmet by local production.

The Agriculture scenario reduces the gap between million metric tons of demand and production from 62% in 2019 to 8% in 2043, instead of 55% in the Current Path. Key parameters in the Agriculture scenario are a 2.1 ton per hectare increase in crop yields and adding 54 000 hectares of irrigated land by 2043.

Although Algeria's crop yields in the Agriculture scenario will improve by 6.2 tons in 2043, they will still be significantly below the average for Africa's lower-middle-income countries, then at 6.4 tons per hectare.

In the Agriculture scenario, Algeria's crop production will increase to 44.2 million metric tons in 2043—an increase of 11 million metric tons relative to the Current Path. A reduction in reliance on food imports is crucial because heavy import dependence can expose the country to supply chain disruptions, price fluctuations and related risks, as observed during the COVID-19 crisis when foreign reserves were depleted.

Food price fluctuations in imports can severely impact Algeria's food security. The Agriculture scenario will reduce the country's agriculture crop import dependence from 40.5% in the Current Path to 17.5% in the scenario and reduce its growing crop import bill from US\$15.4 billion (Current Path) to US\$8.8 billion in 2043.

Water stress is a critical issue in Algeria, particularly in the context of its agricultural sector, which accounts for a significant portion of total water demand. Algeria faces challenges related to water sustainability, including the use of non-renewable fossil water and expensive desalination methods, leading to anticipated increases in water prices by 2043. The region's harsh agricultural conditions and vulnerability to climate change further threaten water resources and food security, potentially impacting regional stability.

Agriculture alone used 66% of total water demand in 2019 (5.6 km³ of total water demand of 8.4 km³). Algeria withdrew around 20% of its water demand from non-renewable fossil water (about 1.7 km³) in 2019, while an additional 10% of its water supply was from expensive desalination plants. The Current Path is that water prices will increase until 2043. In addition, water demand from other sectors, such as municipal and industrial, will also increase.

North Africa faces challenges due to its harsh agricultural conditions and heightened vulnerability to the effects of climate change. These factors are likely to disrupt water resources and food security, posing a risk to regional stability.

In 2019, groundwater withdrawal stood at 4.5 km³ per annum; it will decline to 3.5 km³ in 2043. In the Agriculture scenario, groundwater withdrawal increases to 4.7 km³ in 2043. The increase in supply offsets the 0.5 km³ demand increase for irrigation by 2043 and would see Algeria's total water supply increase to 9.44 km³ in 2043, compared to the 8.76 km³ in the Current Path. Additional work is required to determine if this increase is possible.

Education scenario

Chart 16: Education scenario

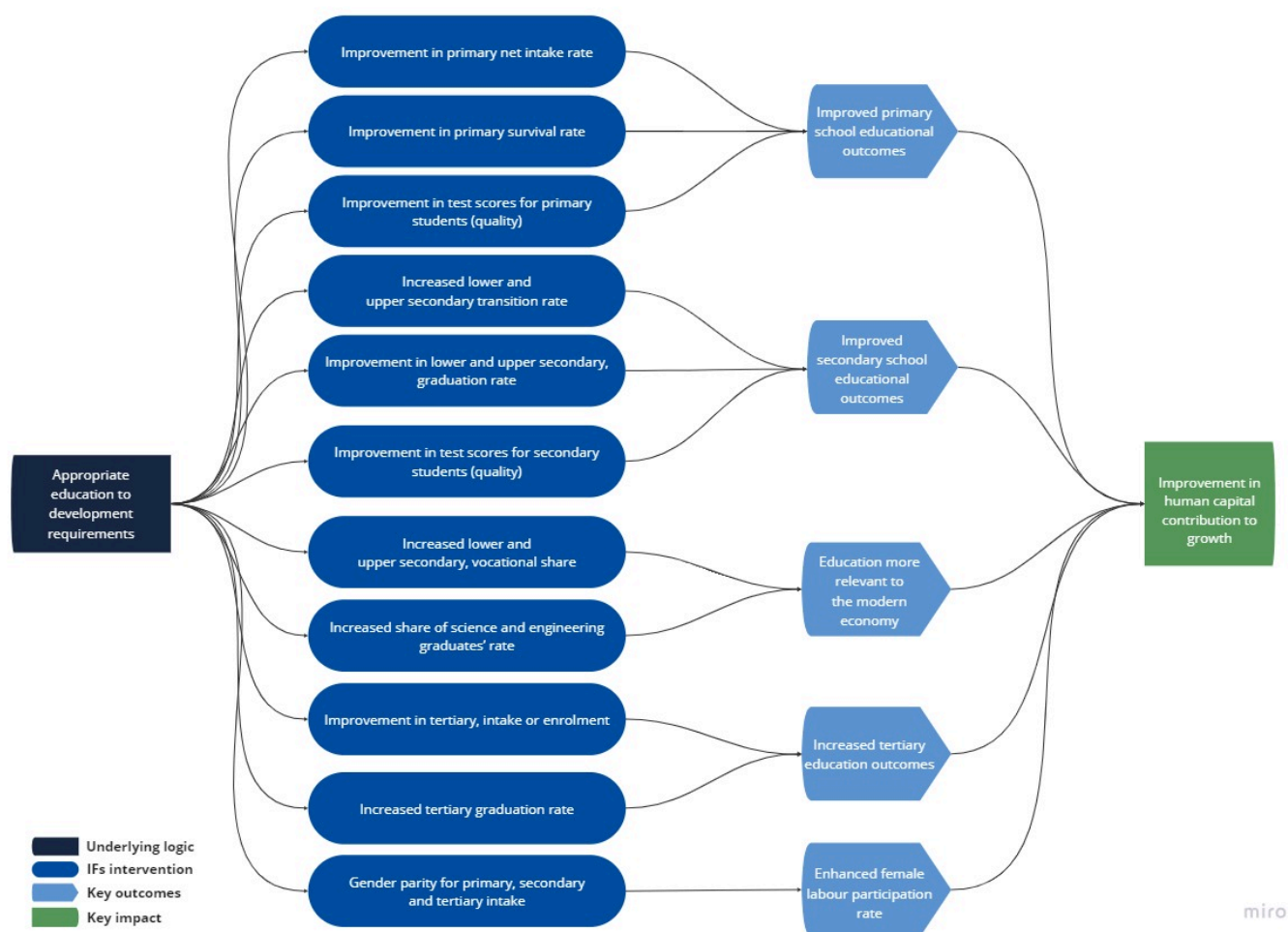


Chart 16 presents the structure of the Education scenario. This scenario improves the quantity and quality of education and its relevance to job requirements.

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

Visit the theme on [Education](#) for our conceptualisation and details on the scenario structure and interventions.

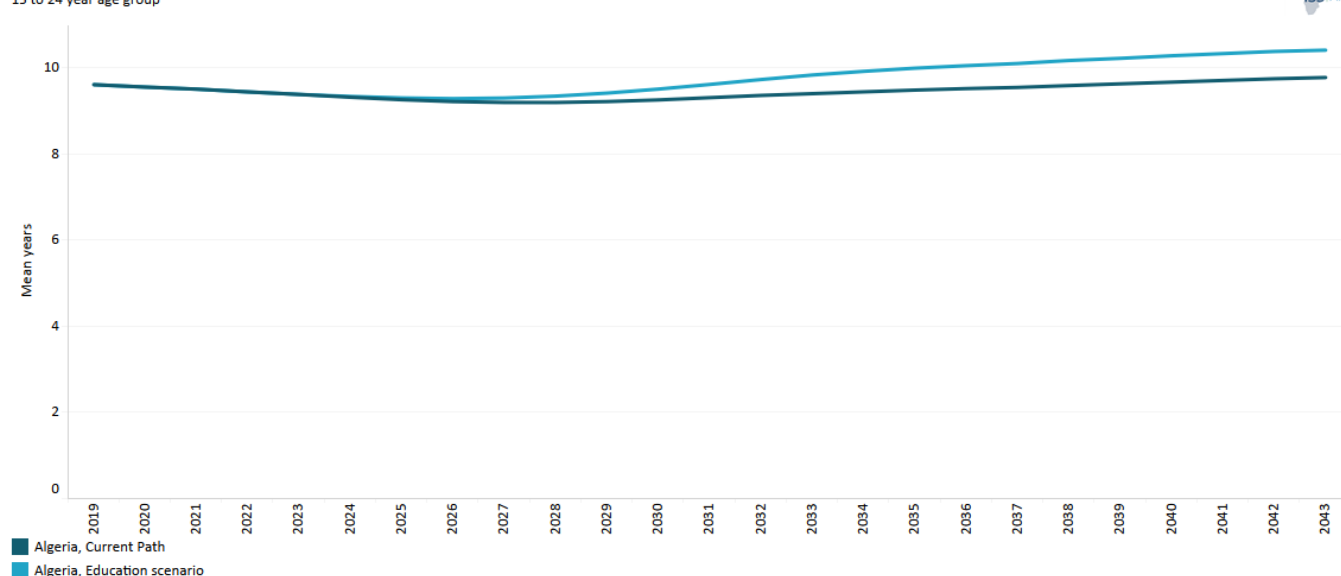
After independence from France in 1962, Algeria embarked on a concerted effort of Arabisation and Islamisation that sought to displace the dominant role of the [French language](#) and culture in the country. Compulsory basic education was introduced in the 1970s and the country's enrolment levels have improved significantly since then.

The government invested heavily in expanding access to education. In 1990, for example, the [education sector](#) received almost 30% of the national budget. As a result, the country's literacy rate stood at 82% in 2019, compared to under 50% in the 1980s.

Algeria is also considered to have achieved universal primary education with a 97% net enrolment rate in 2009. Today, Arabic is the language of instruction from primary to secondary school. At tertiary level, hard sciences are taught in French.

Chart 17: Mean years of education in Current Path and Education scenario, 2019-2043

15 to 24 year age group



Source: IFS 7.84 initialising from Barro-Lee data

Chart 17 presents mean years of education in the Current Path and the Education scenario for the 15 to 24-year age group, 2019 to 2043.

The average years of education in the adult population aged 15 to 24 is a good first indicator of how the stock of knowledge in society is changing.

Although Algeria has achieved universal primary education and generally records good educational outcomes, there are significant leakages in its secondary system, particularly in upper secondary. The mean years of education (15–24 years) for Algeria stood at 9.6 years in 2019. This is more than a year above the average for lower-middle-income African countries and it will modestly improve to 9.8 years by 2043 in the Current Path. In the Education scenario, Algeria's mean years of education for adults aged 15–24 years will increase to 10.4—an improvement of about 0.6 years relative to the Current Path in 2043.

The total quality of education in Algeria is slightly above the average for lower-middle-income African countries, but male education quality slightly lags behind. The challenges faced by Algeria's education system include shortages in educational resources such as teachers, issues with the language of instruction and poor infrastructure.

Reforms to improve the quality of education were introduced in 2003, comprising new teaching methods, restructuring of the curriculum and an ongoing switch in the language of instruction from French to Arabic. Despite these reforms, the UN special rapporteur reported in 2015 that the quality of education in Algeria was low, citing inadequate teacher training and classroom overcrowding as key factors.

In 2008, [private higher institutions](#) were authorised to operate. There has been a significant shift towards these institutions since 2018 to alleviate some of the pressure on the free government-sponsored public education system.

Female education in Algeria is improving rapidly. For example, in 2019, female education in the 15 to 24-year age cohort was 1.4 years higher than that of males. In time, Algeria's total adult female population will be better educated than its adult male population. These improvements are, however, largely wasted when considering that the labour force participation rate for women in 2019 was 52 percentage points below men. In the Current Path, the difference will only reduce to a 39 percentage point difference by 2043.

The situation is inevitably different in rural areas and the obstacles often cited include socio-cultural limitations on girls' potential, remote schools and domestic chores.

The reason for the rapid improvement in female education is that beyond age 16, which is the age up to which education is compulsory, girls stay in school longer than boys and do better in getting high school diplomas and proceeding on to higher education. The ratio of females to males is more than 1.5-to-1 at the tertiary level.

Like other countries, Algeria seems to be experiencing a disconnect between the current demands of the job market, prospects for the Fourth Industrial Revolution (4IR) and the education system. To prepare for the 4IR, countries must invest in science, technology, engineering and mathematics (STEM) and commit to life-long learning and education that encourages entrepreneurship. An encouraging trend in Algeria is that the number of learners enrolling in vocational training has risen in the recent past.

Furthermore, in 2018, women accounted for 41% of **STEM graduates**. This mismatch between the (female) skills of the labour force that is dominated by males is one of the reasons for the high unemployment rates in the country.^[3]

Manufacturing scenario

Chart 18: Manufacturing scenario

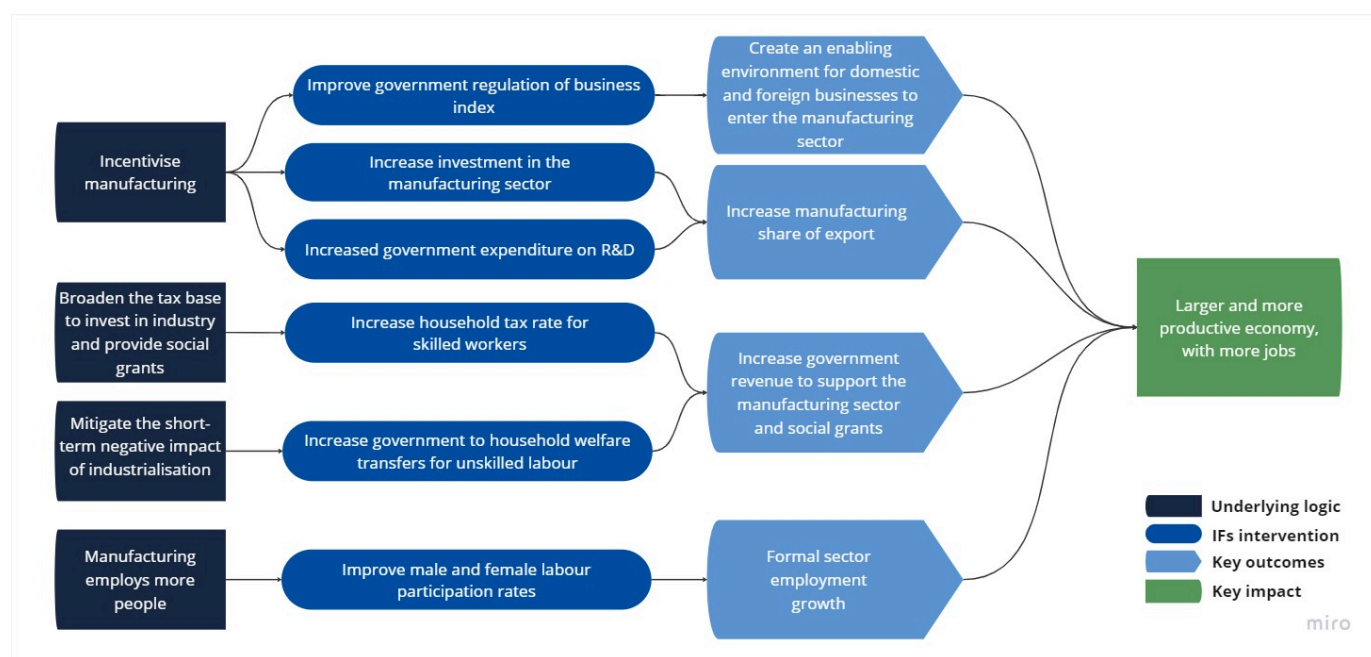


Chart 18 depicts the structure of the Manufacturing scenario.

The manufacturing sector is important to create jobs and increase the rate of employment, to improve productivity, change the structure of an economy and ultimately reduce poverty. Thus, the sector is the base of economic power. However, Algeria's heavy reliance on commodity exports (aka the Dutch disease) makes manufacturing less competitive.^[4]

The Manufacturing scenario represents reasonable but ambitious manufacturing growth through greater investment in the manufacturing sector, in research and development (R&D) as well as improvement in government regulation of businesses. It increases total labour participation rates with a larger increase in female participation rates where appropriate. It is accompanied by increased welfare transfers (social grants) to unskilled workers to moderate the initial increases in inequality typically associated with a manufacturing transition.

Visit the theme on [Manufacturing](#) for our conceptualisation and details on the scenario structure and interventions.

Chart 19: Value-add by the manufacturing sector in Current Path and Manufacturing scenario, 2019-2043

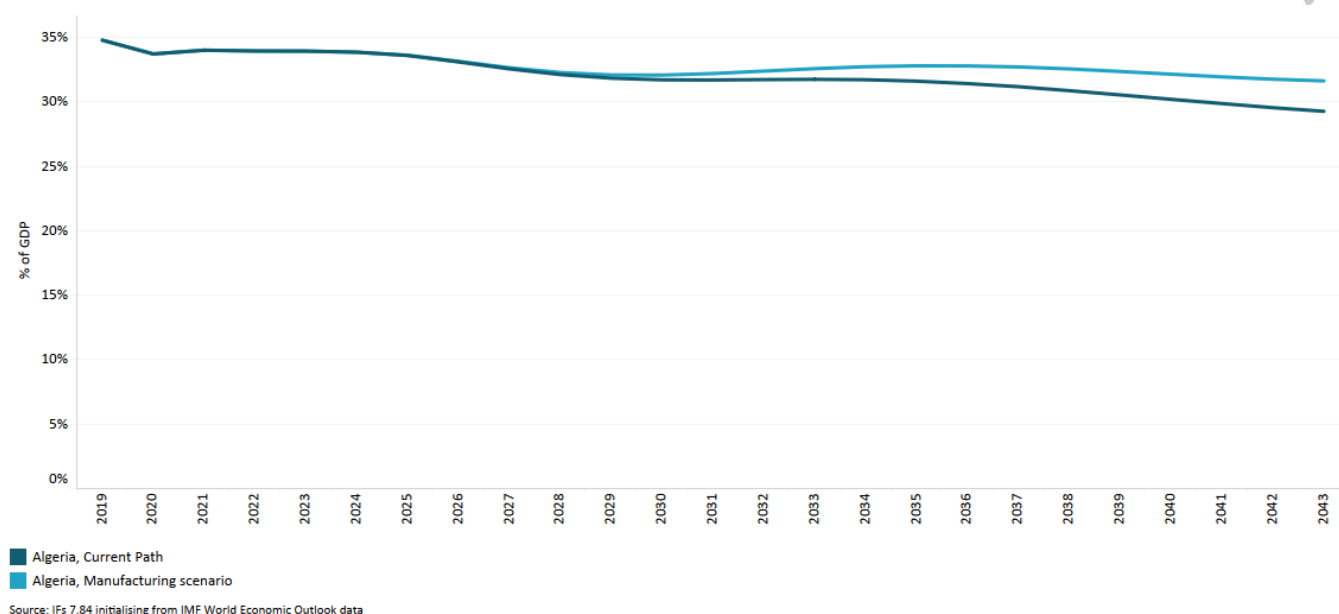


Chart 19 presents the contribution of the manufacturing sector to GDP in the Current Path and the Manufacturing scenario. Our modelling uses data from the Global Trade and Analysis Project (GTAP) to classify economic activity into six sectors: agriculture, energy, materials (including mining), manufacturing, services and information and communication technologies (ICT). Most other sources use a threefold distinction between only agriculture, industry and services, with the result that data may differ.

By comparative African standards, Algeria has a large manufacturing sector, which was significantly bigger than the average for lower-middle-income African countries in 2019.

In 2019, Algeria's manufacturing sector contributed US\$63.5 billion to its GDP, equivalent to 23.9%. The manufacturing sector was the second-largest contributor to GDP in that year after the service sector. The service sector contributed about 46.4% of GDP in 2019, equivalent to about US\$123.5 billion. The energy sector contributed US\$38.4 billion, constituting 14.4% of GDP, and the contributions of the agriculture and materials sectors in 2019 were valued at US\$29.9 billion (11.2% of GDP) and US\$9.1 billion (3.4% of GDP), respectively.

In the Current Path, the contribution of the manufacturing sector will increase to 29.3% of GDP in 2043 as the contribution of the agriculture and service sector will decrease to 9.1% and 33.9%, respectively.

Manufacturing value added will increase by about US\$18.3 billion (or 2.4% of GDP) relative to the Current Path to about US\$132.8 billion in 2043, highlighting the expected growth and changing dynamics in the manufacturing sector.

AfCFTA scenario

Chart 20: AfCFTA scenario

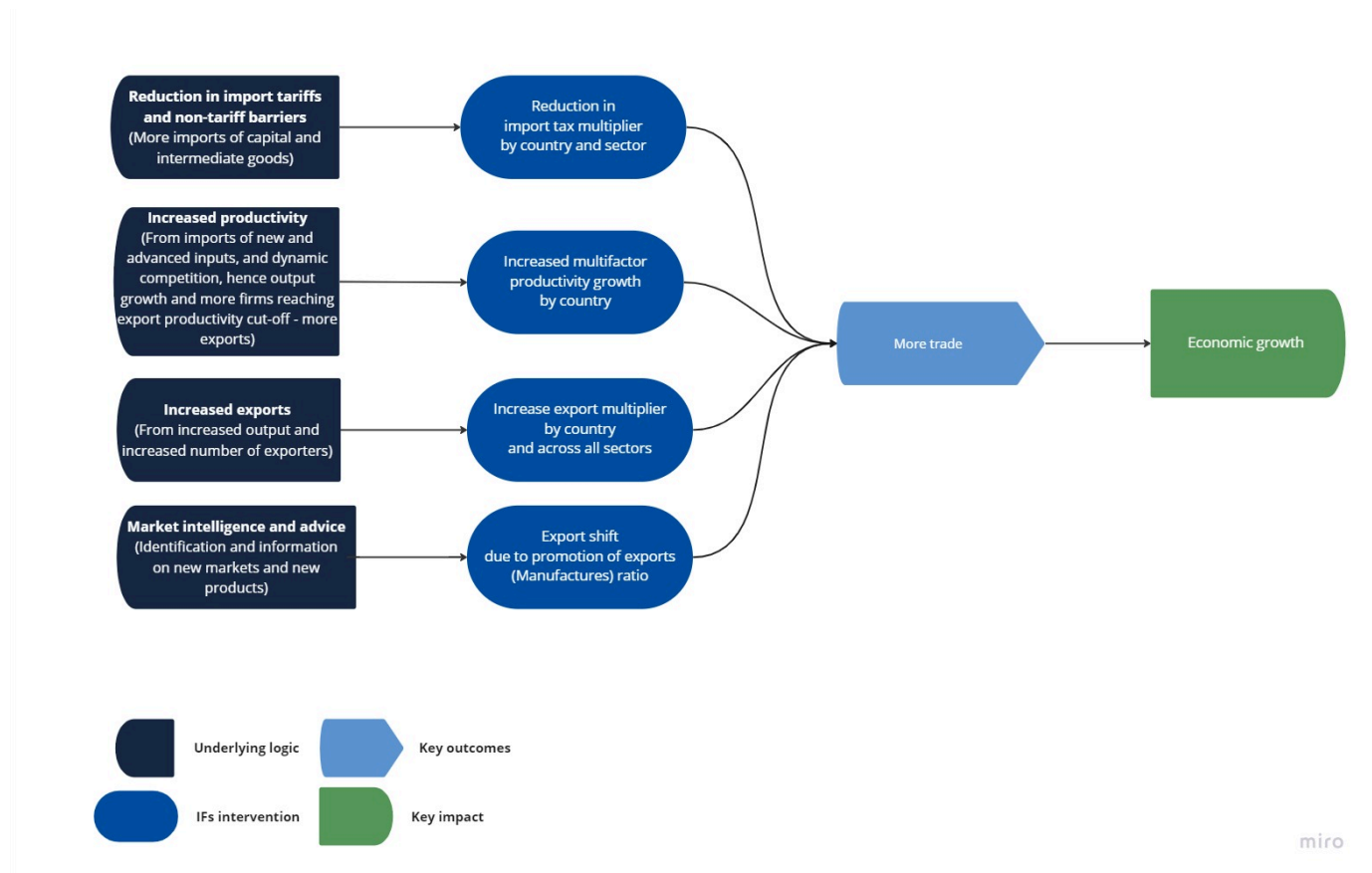


Chart 20 presents the structure of the AfCFTA scenario. This scenario represents the impact of fully implementing the continental free trade agreement by 2043. It increases exports in manufacturing, agriculture, services, ICT, materials and energy. It also includes an improvement in multifactor productivity growth emanating from trade and a reduction in tariffs for all sectors.

Visit the theme on [AfCFTA](#) for our conceptualisation and details on the scenario structure and interventions.

Algeria's export composition is dominated by hydrocarbons (98% of total exports), and it is heavily dependent on imports (70% of the country's needs are imported). According to the **Observatory of Economic Complexity (OEC)**, in 2021 the country's total merchandised exports were valued at US\$35.4 billion, while total imports amounted to US\$34.3 billion. Thus, there was a surplus trade balance of about US\$100 million in that year.

Algeria's **top five exports** in 2021 were petroleum gas (US\$14.3 billion), crude petroleum (US\$10.7 billion), refined petroleum (US\$6.2 billion), nitrogenous fertilisers (US\$1.21 billion) and ammonia (US\$714 million), mostly exported to Italy, Spain, France, South Korea and the United States. The country's top five imports in 2021 were wheat (US\$2.2 billion), concentrated milk (US\$1.3 billion), cars (US\$800 million), soybean oil (US\$798 million) and corn (US\$795), mostly imported from China, France, Spain, Germany and Italy.

Chart 21: Trade balance in Current Path and AfCFTA scenario, 2019-2043

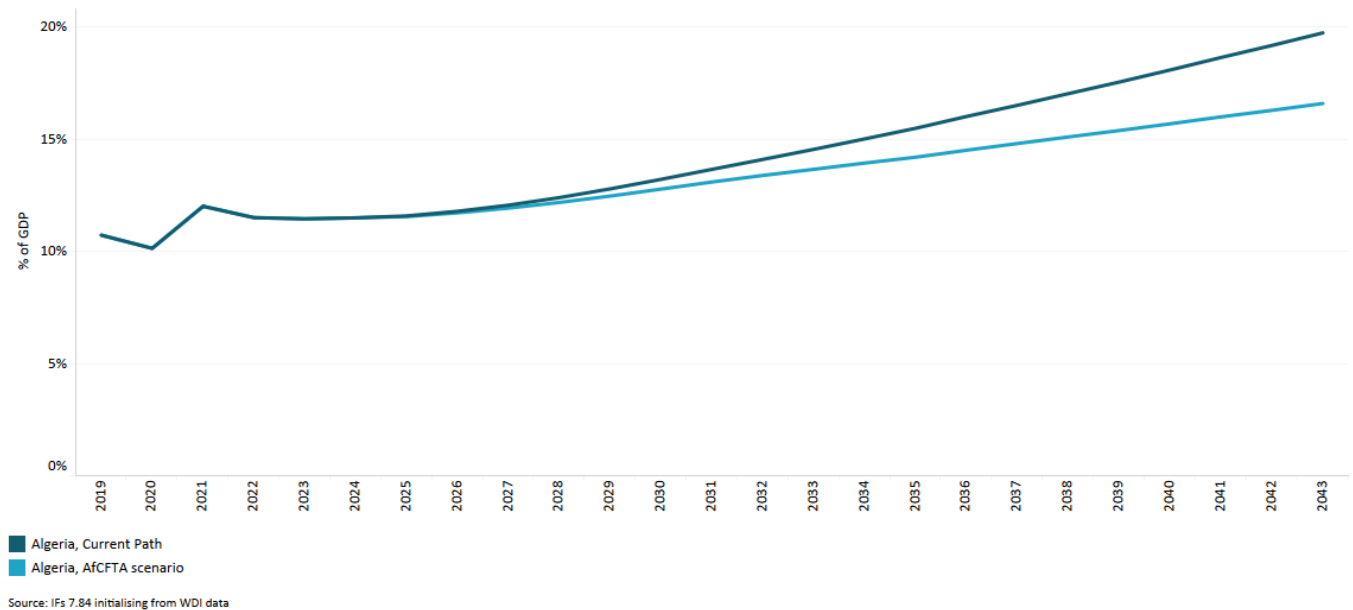


Chart 21 compares the trade balance in the Current Path with the AfCFTA scenario from 2019 to 2043.

From 1996 to 2013, Algeria's trade balance was generally positive (a surplus). It then slumped to a deficit of US\$3.5 billion (1.4% of GDP) in 2014, and further to US\$19.4 billion (7.3% of GDP) in 2019.

The deficit in 2019 was mostly dominated by the deficit in its manufacturing sector, at 8.1% of GDP. Algeria's trade deficit is projected to continue to be dominated by its manufacturing sector with the sector accounting for about 10.9% by 2043. The AfCFTA scenario would increase the deficit by 0.7 percentage points relative to the Current Path in 2043.

Algeria has had a trade surplus in the energy sector. In 2019, the sector trade surplus accounted for 10.7% of its GDP. In the Current Path, the trade surplus is projected to increase to 19.7% of GDP in 2043. In the AfCFTA scenario, Algeria's energy trade surplus accounts for 16.6% of GDP—a decrease of 3.1 percentage points relative to the Current Path in 2043.

Beyond the impact of global developments such as the COVID-19 pandemic, it appears that Algeria's imports are largely controlled by politically connected **corporate barons** who enjoy tax holidays, energy subsidies and credit from state-owned banks to expand their businesses. Because they are entrenched and incentivised to import, they effectively prevent the **industrialisation of Algeria**.

In 2018, the **government of Algeria** imposed temporary import restrictions to protect foreign currency reserves and incentivise local production and diversification. In light of the **COVID-19 pandemic**, the government introduced additional import restrictions in 2020 and committed to reducing imports by US\$6 billion. The aim was to cap imports at US\$30 billion in 2020. However, the imports value in 2020 exceeded the targeted value by US\$40.3 billion.

Trade within the North African region is limited and Algeria's poor export performance reflects this. The **Maghreb** is the least economically integrated bloc in the world with a share of intra-regional trade of only around 5% of total trade. This lack of regional integration is a significant obstacle to diversification and growth for countries in the region. A mere 4% of Algeria's trade is within the Maghreb. The 1 600 km border between Algeria and Morocco has been closed since 1994, reflecting the extent to which fraught political relations in the region determine economics.

In a 2019 IMF report on how economic integration could accelerate growth in the [Maghreb](#), the authors point to the lack of regional considerations on trade and the restrictions on trade and capital flows that constrain regional integration. The report lists the myriad economic benefits that would flow from such integration. These include attracting foreign direct investment (FDI), easing the movement of capital and labour, ensuring more efficient resource allocation and making the region more resilient to external shocks and market volatility. However, except for Morocco, instead of increasing, the trade openness of countries in the region has steadily declined and traders face significant hurdles.

Despite (and perhaps because of) the limited formal trade within North Africa, there is evidence of significant volumes of informal trade with Tunisia and Mali. This informal trade is facilitated by the associated topography—mountains and deserts that offer plenty of opportunities for illicit activities. Gasoline is ten times cheaper in Algeria than in [Tunisia](#) and informal traders benefit from this disparity at the expense of tax revenues. Tax and subsidy differentials are the main drivers of the considerable unregulated and informal trade between Algeria and its neighbours.

Similarly, there is evidence of significant informal trade between Algeria. As a result of the [cross-border trade](#) between southern Algeria and northern Mali, the area benefits from lower prices than if goods came from the south of Mali. This phenomenon partially explains the lower poverty levels in the north of Mali, particularly in and around Kidal.

Large Infrastructure and Leapfrogging scenario

Chart 22: Large Infrastructure and Leapfrogging scenario

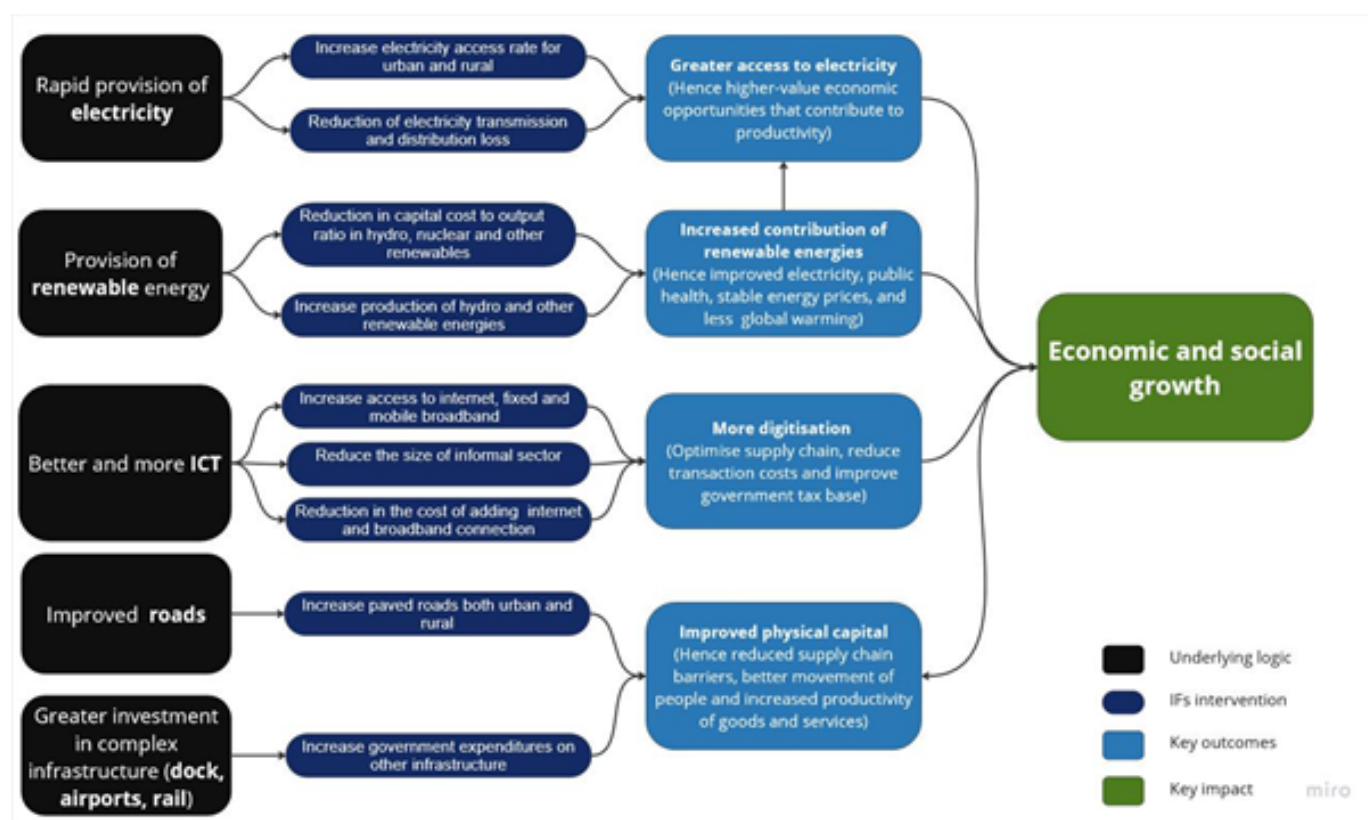


Chart 22 presents the structure of the Large Infrastructure and Leapfrogging scenario.

The Large Infrastructure and Leapfrogging scenario represents a reasonable but ambitious investment in road infrastructure, renewable energy technologies and improved access to electricity in urban and rural areas. The scenario includes accelerated access to mobile and fixed broadband and the adoption of modern technology that improves government efficiency and allows for the more rapid formalisation of the informal sector. A final intervention emulates investments in large infrastructure such as rail, port and airports.

Visit the themes on [Large Infrastructure](#) and [Leapfrogging](#) for our conceptualisation and details on the scenario structure and interventions.

Modern infrastructure can improve productivity, augment healthy lifestyles, boost educational outcomes and facilitate government effectiveness. Infrastructure development is positioned as a key enabler in Algeria's National Vision 2030 strategy.

Physical infrastructure, such as roads and railways, is a critical driver of economic growth and an important component of development. It facilitates the movement of people, goods and services, promotes inter and intra-country trade and serves as an enabler of social service provision such as education and health.

Algeria has excellent all-season road access, comparable to Egypt and Libya in North Africa. In 2019, 86.7% of the rural population had access within 2 km of an all-weather road, while the average for lower-middle-income African countries

was only 66.7%. The Large Infrastructure and Leapfrogging scenario will increase all-season rural road access of the rural population in Algeria to 92.1% in 2043, compared to 91.6% in the Current Path. Paved roads increase by 8.2 percentage points, or 21 023 km, above the Current Path in 2043.

Chart 23: Cookstove usage in Current Path and Infra/Leapfrogging scenario, 2019-2043

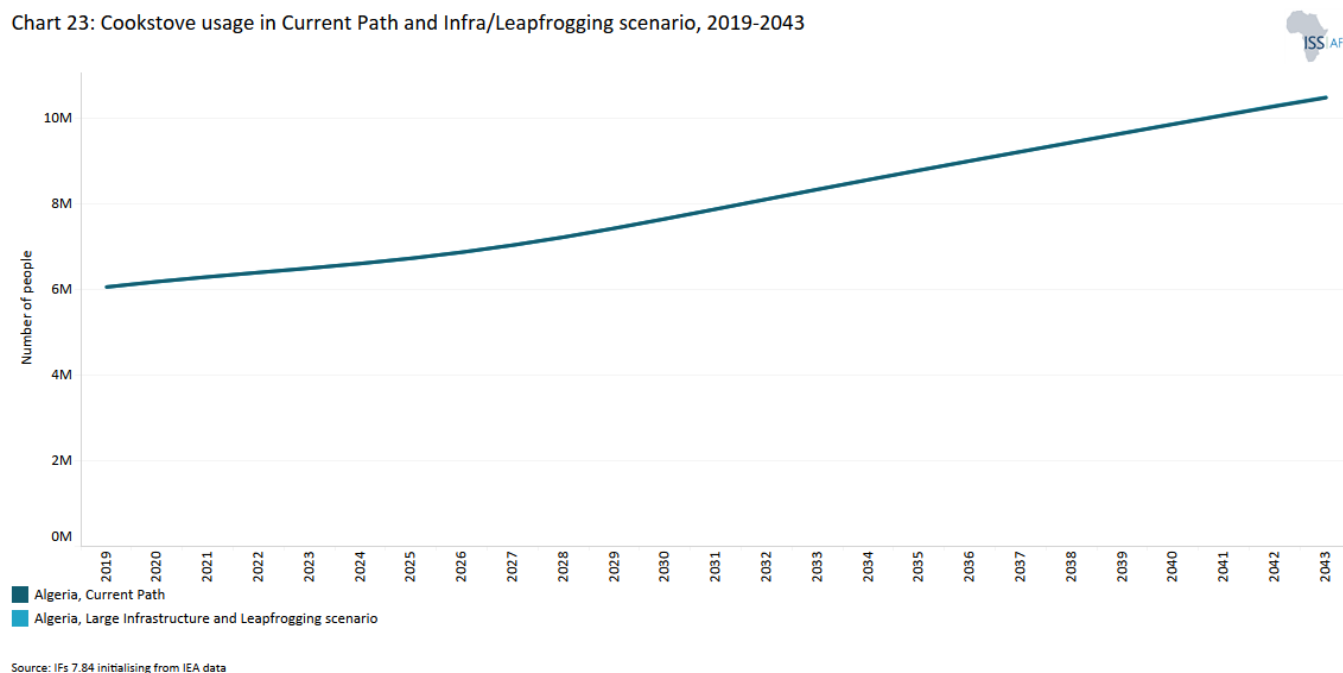


Chart 23 shows cookstove usage in the Current Path and the Large Infrastructure and Leapfrogging scenario from 2019 to 2043.

In 2019, about 42.8 million Algerians (99.5% of the population) had access to electricity. This was above the average of 64.9% and 83.7% for lower-middle-income and upper-middle-income countries in Africa, respectively. In the Current Path, Algeria's access to rural electricity will reach 100% of the population by 2022, while urban electricity access by 2020.

As access to electricity in urban and rural areas increases, more households switch from traditional cookstoves, such as wood-burning or coal stoves, to improved and modern fuel stoves, such as electric or gas cookers. Our modelling distinguishes between three types of cookstoves: traditional, improved and modern. In 2019, 0.01% of households in Algeria used traditional stoves for cooking, while 99.99% used modern cookstoves.

Chart 24: Access to mobile and fixed broadband in Current Path and Infra/Leapfrogging scenario, 2019-2043

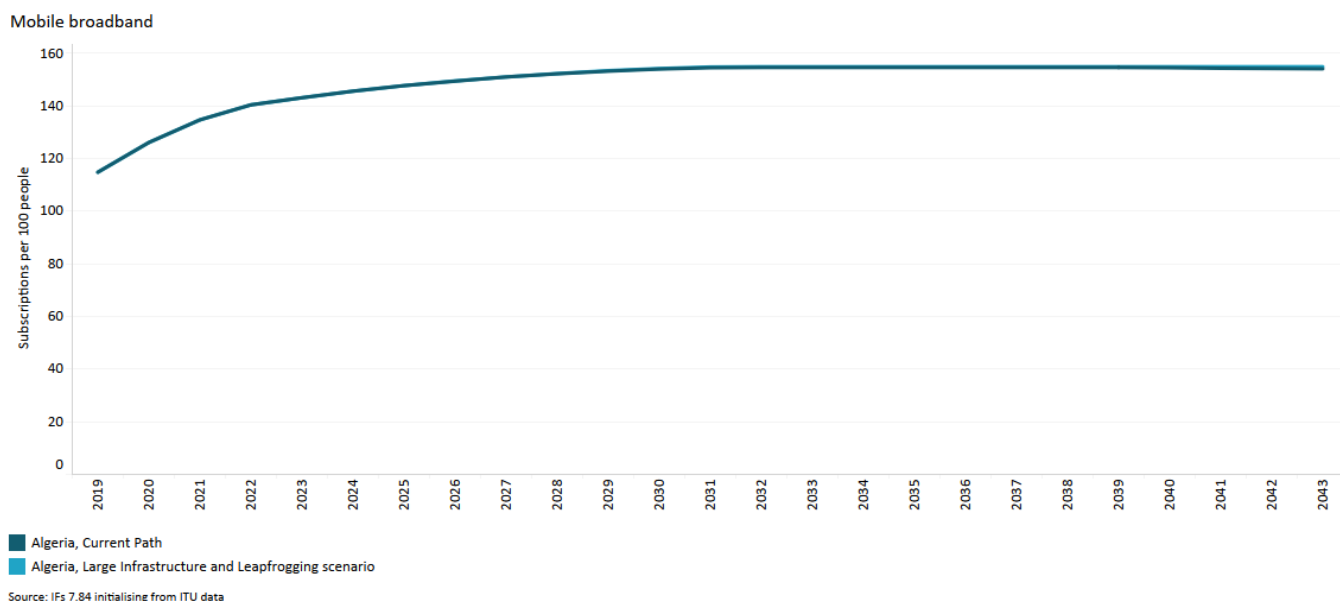


Chart 24 presents access to mobile and fixed broadband in the Current Path and the Large Infrastructure and Leapfrogging scenario as % of population, 2019 to 2043. The reader can toggle between mobile and fixed broadband.

Mobile broadband in Africa is expanding rapidly but fixed broadband lags. In 2019, Algeria had a mobile broadband subscription rate of 114.8 subscriptions per 100 people, which was significantly greater than the average of 42.0 and 84.8 for lower-middle-income and upper-middle-income African countries, respectively.

Because Algeria is already performing well in terms of access to mobile broadband, with the Current Path reaching 154.1 subscriptions per 100 people by 2043, the Large Infrastructure and Leapfrogging scenario has only a marginal impact. The scenario gets to 154.9 subscriptions per 100 people by 2043, an increase of 0.8 subscriptions per 100 people relative to the Current Path.

In 2019, fixed broadband subscriptions in Algeria were estimated at about 9.9 subscriptions per 100 people. This was above the average for lower-middle-income and upper-middle-income African countries, with averages of 3.3 and 3.9 subscriptions per 100 people, respectively.

In the Large Infrastructure and Leapfrogging scenario, fixed broadband subscription in Algeria will increase to 49.7 subscriptions per 100 people in 2033—an increase of 11.7 subscriptions per 100 people relative to the Current Path. The Large Infrastructure and Leapfrogging scenario will have no impact by 2043. The number of subscriptions will be equal to the Current Path, at 50 subscriptions per 100 people.

Financial Flows scenario

Chart 25: Financial Flows scenario

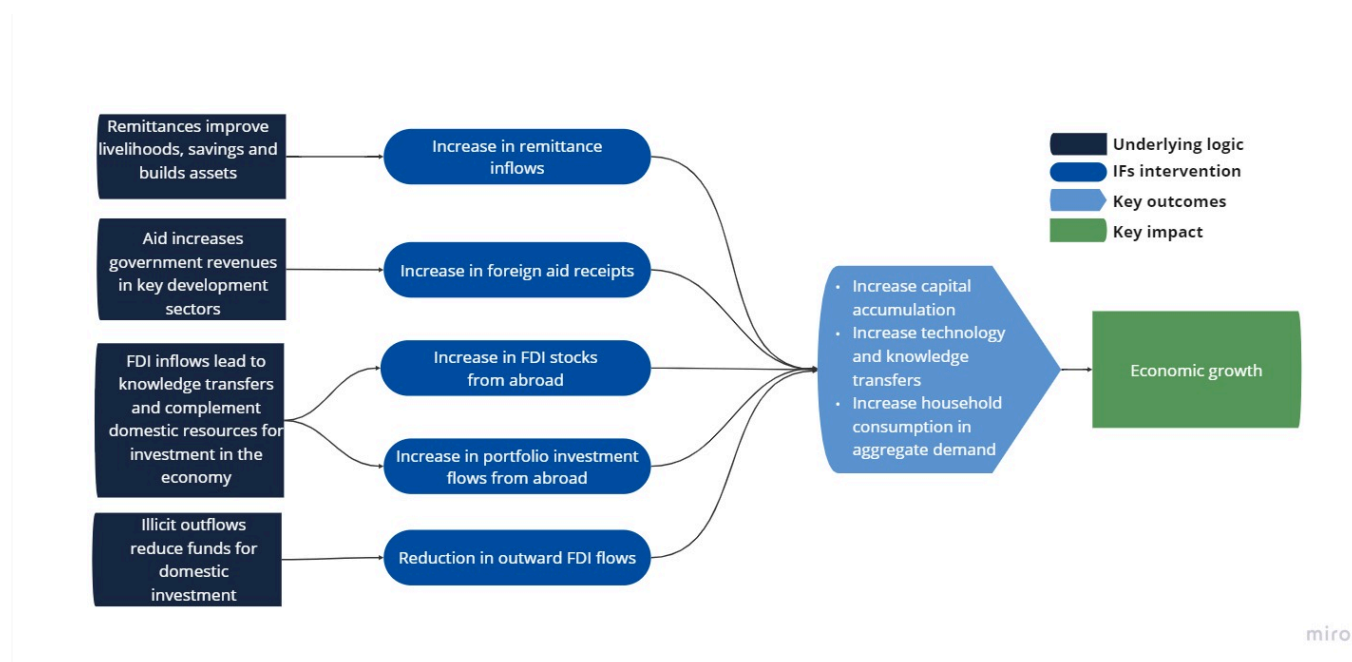


Chart 25 presents the structure of the Financial Flows scenario.

The Financial Flows scenario represents a reasonable but ambitious increase in inward flows of worker remittances, aid to poor countries and an increase in the stock of foreign direct investment (FDI) and additional portfolio investment inflows. We reduce outward financial flows to emulate a reduction in illicit financial outflows.

Visit the theme on [Financial Flows](#) for our conceptualisation and details on the scenario structure and interventions.

Algeria attracts significantly lower levels of FDI as a per cent of GDP compared to the average of lower-middle-income African countries; this gap has steadily widened. In 2019, Algeria's FDI stock was 17.4% of GDP, about two times lower than the average of lower-middle-income African countries.

Since the Arab Spring, FDI from Europe into Algeria and the region has dropped, although Gulf investors have shown greater interest. China has also increased its investments in Algeria over the past two decades, recently taking over France's historical position as the largest investor, mainly in the construction and mining sectors. Algeria is a close ally of Beijing and the two countries have a strategic partnership.^[5]

According to [UNCTAD's World Investment Report 2023](#), Algeria's FDI inflows fell from about US\$1.5 billion in 2014 to US\$585 million in 2015 but improved to US\$870 million after a rebound in 2021. However, Algeria's FDI inflow fell by 89.8% in 2022 to US\$89 million, due mainly to overlapping global crises—soaring public debt, the war in Ukraine and high food and energy prices.

The World Bank ranked Algeria 157th out of 190 countries in its [Doing Business 2020 report](#), which measures aspects of business regulation and their implications for firm establishment and operations.

Numerous regulatory and practical hurdles constrain FDI in Algeria. The [World Economic Forum](#) lists impenetrable markets, protectionism, corruption, weak and overregulated digital and e-commerce economy, weak intellectual property laws and bureaucracy as obstacles to investment.

Algeria has also been protecting and promoting small and medium enterprises, which generally lack managerial independence, efficiency and accountability and place a burden on the national budget through contingent liabilities. A shakeup of small and medium enterprises and promotion of the private sector are key requirements if Algeria is to grow faster.

There are signs of progress: improved investment laws and plans for diversification are outlined in the Complementary Finance Law of 2020. This law removes the application of the 51/49 investment rule on domestic ownership of foreign business and cuts corporate taxes for investment in certain locations. It also provides for concession of land by mutual agreement and tax exemptions throughout the life of exporting projects.

Algeria can also take advantage of ICT to promote efficiency and direct less effort at the speculative economy and more at the [productive economy](#).

[Remittance flows](#) to Algeria were valued at US\$1.760 billion in 2022. This is a decline in remittance inflow by 1.8% when compared to 2021. Remittance outflows were estimated at US\$82 million in 2022—a decline from US\$83 million in 2021.

Chart 26: Government revenue in Current Path and Financial Flows scenario, 2019-2043

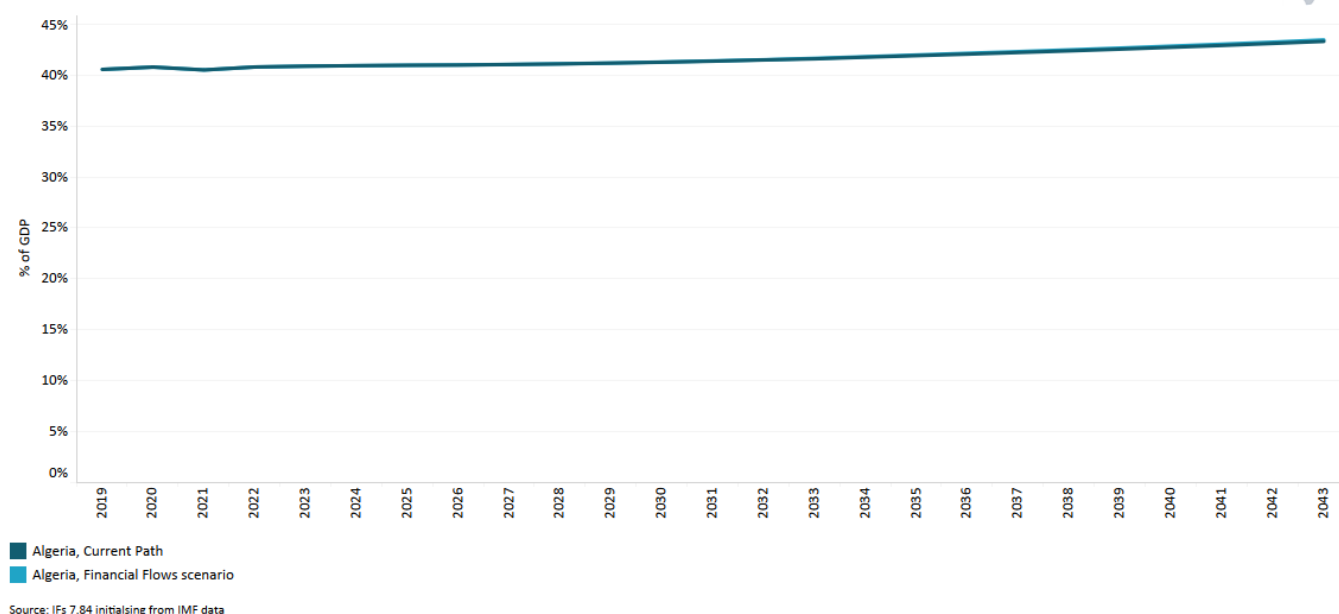


Chart 26 presents government revenues in the Current Path and Financial Flows scenario, from 2019 to 2043 and in US\$ 2017 values or % of GDP.

Wagner's law, or the law of increasing state activity, is the observation that public expenditure increases as national income rises. It is, therefore, reasonable to expect that government revenues will increase as a per cent of GDP in the Financial Flows scenario compared to the Current Path.

The increase in FDI inflows, aid and remittances have a significant positive impact on Algeria's government revenue. In 2019, Algeria's FDI inflow as a percentage of its GDP was 0.8%. The Financial Flows scenario will contribute to attracting

higher FDI inflows. By 2043, Algeria's FDI inflows as a percentage of GDP will increase from 1.7% (Current Path) to 3.3% of GDP in the Financial Flows scenario. This will be about 1.6 percentage points above the Current Path for that year. This increase is, however, below the projected Current Path average of 3.5% for lower-middle-income countries and above the average of 3.2% for upper-middle-income countries on the continent.

In 2019, government revenue for Algeria was US\$107.7 billion. In the Current Path, it will increase to US\$185.5 billion by 2043, growing at an average annual rate of 2.2% (in the period 2019 to 2043). In the Financial Flows scenario, government revenue of Algeria will rise to US\$187.2 billion—an increase of US\$1.6 billion (or 0.9%) relative to the Current Path in 2043.

Governance scenario

Chart 27: Governance scenario

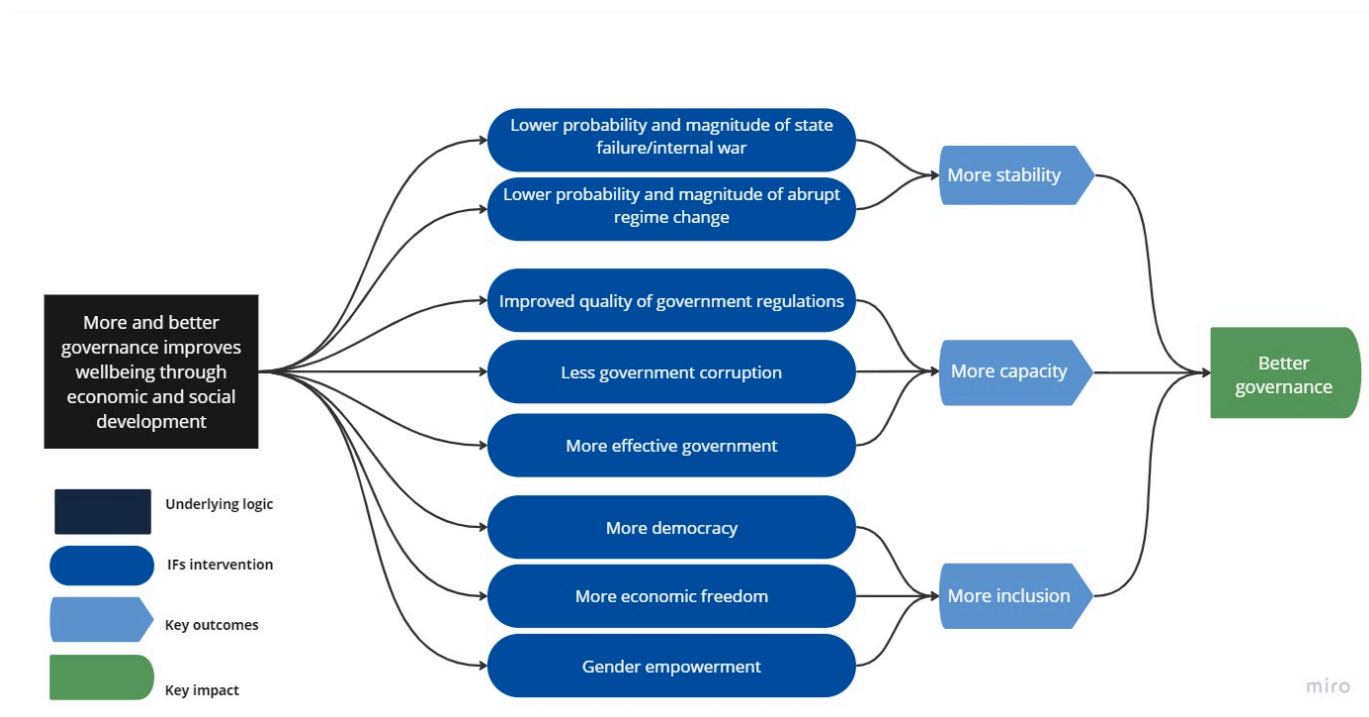


Chart 27 depicts the composition of the Governance scenario. Thinking of governance in terms of security, capacity and inclusion provides a useful lens to compare how countries progressed over time, as well as compare the state of governance between countries and groups of countries.

Visit the theme on [Governance](#) for a full conceptualisation and details on the scenario structure and interventions.

In brief, the stability dimension uses data from the Political Instability Task Force on:

- the probability and magnitude of state failure/internal war,
- the probability and magnitude of abrupt regime change, and
- social violence consisting of reductions in conflict and terror and police conflict.

Capacity is enhanced by improving the quality of government regulation, government effectiveness (both from the Worldwide Governance Indicators) and reductions in corruption using data from Transparency International.

Inclusion improves as a result of:

- an improvement in levels of democracy using the Polity IV index applied to those countries that evidence a democratic deficit,
- an improvement in gender empowerment using the gender empowerment measure (GEM) from the United Nations Development Programme (UNDP), and

- more economic freedom (using the associated index from the Fraser Institute).

These indices compare well with the results from others, although our modelling adopts a more structural/long term approach. For example, Worldwide Governance Indicators published by the World Bank measures six dimensions of governance, many of which overlap with the three indices. These are: voice and accountability; political stability and absence of violence/terrorism; government effectiveness; regulatory quality; rule of law; and control of corruption.

In addition to the scars of the brutal civil conflict in Algeria (from December 1991 to February 2002), Algeria's political system has become increasingly lethargic and its economic framework is performing poorly. The economy has been bedevilled by overregulation, cronyism, corruption, lack of innovation and dependence on a rapidly declining hydrocarbon industry.

Like many other societies in North Africa, Algerians show increasing disenchantment with a political system that prevents many from participating in gainful economic activities. This **widespread dissatisfaction**, coupled with an economic environment that offers few opportunities, previously triggered the formation of Islamist fundamentalist and extremist groupings in the country. More recently, the impact has been on limited political and economic reform

In response to the first wave of the Arab Spring, the government instituted a set of political reforms in 2011 in an attempt to undercut the rising tide of discontent. It ended a 19-year-old state of emergency, increased female representation in elective posts and expanded subsidies.

However, later that year Algeria's eastern neighbour, Libya, descended into civil war in a region characterised by poor **border control** and rampant organised crime and smuggling. It was only the size and efficiency of its large security establishment that allowed Algeria to contain the destabilising impact of the spread of weapons and the influx of terrorism.

Oil rents have allowed the regime to promote social stability and co-opt several opposition groups. The drop in oil prices since 2014 constrained the ability of the state to implement social programmes and so dampen the impact of rising popular discontent. This disaffection is the product of years of economic stagnation, high unemployment, extreme labour market segmentation and chronic corruption.

Discontent peaked in February 2019 when then-president Abdelaziz Bouteflika announced his intention to stand for a fifth presidential term in the April 2019 elections.^[6] Incapacitated and presiding over a government considered corrupt and elitist, his announcement triggered weekly protests by millions of Algerians in what became known as the Hirak movement.

With no signs of the protests abating, Bouteflika eventually announced that he would not seek re-election and then postponed the elections. This did not quell the protests and eventually the military forced his resignation.

For over a year, Algerians protested twice a week and promised to keep doing so until the country achieved what they considered to be 'genuine reform'. This included the promise of an overhaul of the regime and free and fair elections. The establishment of a new electoral authority also failed to halt the protests.

The election that took place on 12 December 2019 was a dismal and **widely boycotted affair**. The candidates were all perceived to be part of the same political establishment that gave rise to protestors' discontent. Former Prime Minister Abdelmadjid Tebboune, a perceived loyalist of the ousted president, won the presidential vote with the lowest voter turnout in the country's history.

The Hirak protest movement in 2019 put pressure on the regime to reform but a crackdown on dissent since the COVID-19 pandemic has prevented large-scale demonstrations from continuing.

In 2021, the High Security Council designated the Rachad — an organization that includes former Islamic Salvation Front members — and the Movement for the Self-Determination of Kabylie (MAK) as terrorist organisations. Numerous people accused of affiliation with the groups have since faced arrest. In November 2022, exiled MAK leader Ferhat Mehenni was sentenced in absentia to life in prison on [terrorism-related charges](#).

Regardless of the domestic situation, it is clear that governance in Algeria is out of step with its peers globally. Better governance ensures the efficient allocation and distribution of state resources and encourages FDI inflows.

Within our modelling, governance consists of three dimensions, namely security, capacity and inclusion. Each is constructed out of a series of subsidiary data and indices. In 2019, Algeria did well compared to the averages of lower-middle-income and upper-middle-income countries in Africa in the security and capacity dimension. However, it trails upper-middle-income African countries in terms of inclusion, which consists of broad elements of democracy, gender empowerment and youth participation.

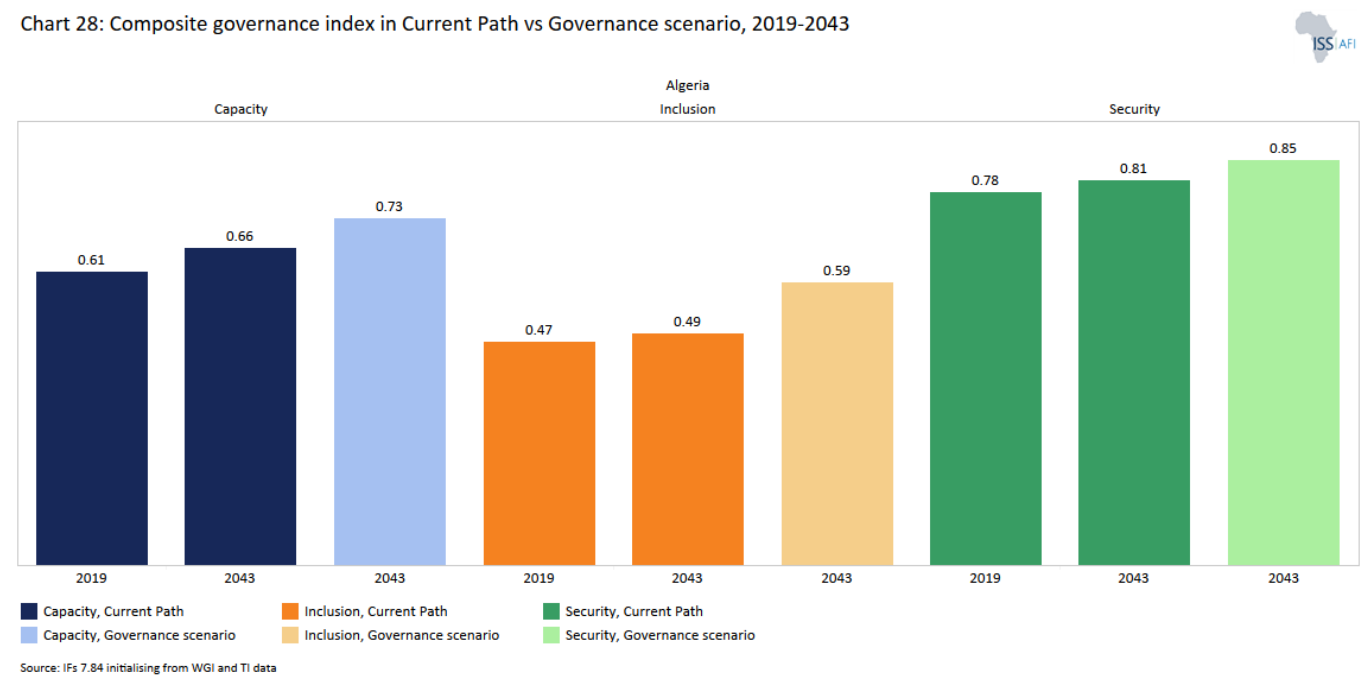


Chart 28 presents progress with each of the three governance dimensions by 2043 in the Current Path and Governance scenario compared to 2019. It shows the time series (line) and each aspect separately (bar).

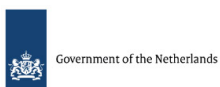
Generally, governance in Algeria does better compared to the average of lower-middle-income countries in Africa. In the total governance index, its score of 0.62 in 2019 was 21.4% higher than the average of lower-middle-income countries in Africa and just 8.2% lower than the average of upper-middle-income countries.

Algeria does well and will continue performing better compared to the average of upper-middle-income African countries in the security and capacity dimension. It will continue to trail behind the average of upper-middle-income African countries in terms of inclusion by 2043. On the Current Path, Algeria’s inclusion index will reach 0.49 by 2043. In the Governance scenario, the score will increase by 0.11 (or 22.1%) reaching an overall score of 0.59.

Endnotes

1. Catch phrase for other communicable diseases that are not prevalent enough to be categorised on their own.
2. Tin Hinane El Kadi, Peer reviewer, London School of Economics, 15 June 2020. After independence Algeria's industrial policy was based on an import substitution industrialisation (ISI) strategy and focused on the promotion of unbalanced growth, favouring heavy manufacturing over agriculture and investment over consumption.
3. Tin Hinane El Kadi, Peer reviewer, London School of Economics, 15 June 2020.
4. Tin Hinane El Kadi, Peer reviewer, London School of Economics, 15 June 2020.
5. Tin Hinane El Kadi, Peer reviewer, London School of Economics, 15 June 2020.
6. Bouteflika had, in 2016, engineered a constitutional amendment that limits presidential terms to two, but since it was not retroactive it allowed him to stand for a fifth term.

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Blessing Chipanda (2025) Algeria. Published online at futures.issafrica.org. Retrieved from <https://futures.issafrica.org/geographic/countries/algeria/> [Online Resource] Updated 26 November 2024.

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