Stagnation or Growth? Algeria’s development pathway to 2040
From current path to Algerian dream

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Scenario components

This section draws on the preceding Current Path analysis and presents the impact of interventions across four key areas in Algeria to 2040, reflected schematically in Chart 14. These consist of improved governance, economic transformation, investment in the knowledge economy and movement towards a more sustainable economy through improvements in agriculture, water management and a greater focus on renewables.

Each of the four sectoral scenario interventions represent a successful push of policy interventions beginning in 2021, emulating five years of reform to 2026 unless indicated otherwise. Selected indicators, such as education, are given a ten-year push in view of the slow-moving nature of outcomes in the sector.

These are not alternative scenarios. Instead, Algeria needs to undertake all four groups of policy interventions. As such, our intent in the clustering is to highlight the contribution and impact that each cluster can make to the future of the country.

A number of elements, such as diversifying from oil and gas and incentivising manufacturing, have featured in previous planning. For example, Algeria’s ambitious five-year development plan of 2014–2019 targeted an annual GDP growth rate of 7%. However, in the five-year period between 2014 and 2019[1] the economy only grew at an average rate of 2.6%.

The government outlined agriculture, tourism and industry as key priority areas, yet energy and hydrocarbons remained pivotal to the economy.

Nonetheless, the GoA is fully aware of the need for diversification and the limited prospects of the hydrocarbon industry in terms of job creation, or indeed as a future source of growth.

There are two important caveats to our proposals. The first is the impact of Algeria’s free trade agreement with the EU. Without significant asymmetrical arrangements or other measures to boost the value-content of Algeria’s exports, it would be very difficult to unlock a manufacturing or indeed even an agro-industrial growth path. Similarly, in the agricultural sector, Algeria has to compete with heavily subsidised European farmers.

The second caveat relates to the lack of regional economic integration in North Africa, where Algeria is much better positioned to increase trade volumes and the value of its exports. While the EU and Algeria have embarked on the free movement of goods, there does not appear to be a similar arrangement regarding a flow of labour and incentives to attract European investment and companies to Algeria.

The economic recovery plan currently under discussion by the government is expected to retain many features of the previous five-year plan. Algeria already has an industrial revival policy that identifies 12 strategic sectors,[2] a master plan for tourism development, an agricultural and rural renewal programme, a renewable energy programme and a development plan for fishing and agriculture.[3]

However, the economy remains stuck in second gear. It is clear that only greater legitimacy can withstand the strain that will be caused by subsidy reform—and even then it would have to occur slowly. The country also needs to rethink its regional relations, as well as how it implements and benefits from a free trade arrangement with the EU.
Barring caveats, collectively the four scenario components could steer Algeria toward greater economic growth and inclusivity, and away from its middle-income trap and the interlinked double risk of commodity vulnerability and food imports.

The interventions carried out are benchmarked with reasonable but aggressive targets and should enable Algeria to regain upper middle-income status by 2028—a remarkable achievement given the shock of COVID-19. Overall, the result is to set Algeria on a more sustainable development pathway and increase income growth.

A list of the interventions and benchmarks for each are included in annex B.

Chart 15: Scenario components

- **Transform the Economy**
  - Reduce government regulation of business, reduce business taxes and increase economic freedom to open up participation
  - Increase participation of women in the economy
  - Increase domestic and foreign investment in the economy
  - Incentivize manufacturing

- **Invest in the Knowledge Economy**
  - Improve education outcomes from lower secondary through tertiary
  - Improve the quality of education at primary and secondary levels
  - Increase R&D spending
  - Increase penetration of broadband and internet to unlock the digital economy

- **Agriculture, Water and Renewables**
  - Improve agricultural yields by, expanding cropland area, increase land equipped for irrigation and reduce agricultural loss and waste
  - Promote better management and use of water by treating and using more wastewater
  - Use technology to reduce the capital cost of investing in other renewable energy sources

- **Improved Governance and Subsidy Reform**
  - Reduce inefficient subsidies from the wealthy and better target them to the poor
  - Reduce corruption and improve government effectiveness
  - Introduce substantive democracy

Source: Authors

**Improved Governance and Subsidy Reform**

Despite many efforts at reform, the feeling among most Algerians is that the rentier structure of the economy and the locus of political power remain unchanged. Political power is concentrated in the presidency and various shadow actors, including the military, which is considered the de facto ‘kingmaker’.

Inefficiency, corruption and political patronage appear to characterise many government institutions. As a result, many Algerians have opted out of the formal economy and turned to the informal and parallel economy.

Reflecting this general disaffection, official estimates of the turnout in the presidential elections of 12 December 2019 were just under 40% of eligible voters—the lowest of any Algerian presidential election held since independence.

Although the country’s political and economic system has delivered in terms of essentials such as education and basic services, it is increasingly unfit for the future. Change will be difficult and will require a commitment to overturn vested...
interests.

In this scenario component, we emulate the impact of a social compact for the future girded by the promise of a more inclusive economy and substantive political reform.

In the ‘Governance and Subsidy Reform’ component, Algeria is, by 2026, much more democratic (scoring 5.3 on the Polity index instead of 2.9 in the Current Path), although still below the average for OLMICs.

Efforts to unlock the heavy hand of the state will be particularly difficult when it comes to reforming the subsidy system. Rather than emulating change in the short term, as advocated by international financial institutions, the intervention emulates a steady but slow process of subsidy reform from 2021 to 2040. By 2030, the impact of this component is a 2.5 percentage point reduction in social transfers in the form of government welfare transfers at 13.7% of GDP—a necessary and inevitable step towards a more productive and inclusive economy.

The intervention emulates the gradual reduction of subsidies such as on fuel and for water and the phasing in of modest targeted social safety net programmes for the poor. Social transfers in Algeria will, by 2040, still amount to 12.7% of GDP—7 percentage points of GDP above the average for OLMICs and about 2 percentage points above the average for UMICs.

To complement a reformed subsidy system, this scenario component gradually improves government effectiveness and efficiency in service delivery.

Algeria shares some governance characteristics with UMICs, having recently been downgraded to LMIC status. For example, it performs slightly better on the World Bank index of governance effectiveness than OLMICs, but significantly below the average for UMICs. Compared to UMICs, government effectiveness in Algeria lags by nearly 18%.

In 2019, Algeria ranked 106 out of 180 countries globally, with a score of 35 out of 100, in Transparency International's perception of corruption index. Outrage over corruption and mismanagement of funds is one of the reasons for protests in Algeria and the broader MENA region.

The intervention increases transparency and reduces corruption by 27% between 2021 and 2026. Algeria would see less wastage and more efficient use of its scarce resources as a consequence.

**Transform the Economy**

Although Algeria has achieved positive outcomes across various sectors, particularly in its human development, the country’s socio-economic stability is increasingly tenuous. This is the result of, among other things, a lack of economic opportunities—a situation that has been exacerbated by low oil prices since 2014 and more recently by COVID-19.

Owing to the dominance of the oil and gas sector, its location and upcoming free trade agreement with the EU, manufacturing has taken a secondary role in Algeria’s development priorities. This is in spite of a roadmap for reindustrialisation by the Ministry of Industry and Mines to reduce bureaucracy, institute tax reforms and ensure greater access to land.

Given the need to diversify Algeria’s economy, the interventions in this scenario component increase domestic investment and, eventually, also attract more foreign investment in the economy. In turn, this requires significant financial reforms.
Investments have also lagged because of concerns about stability and an inhospitable investment environment. This scenario component reduces the 'burden of bureaucracy' and restrictions on doing business and creating business start-ups/entrepreneurship. In addition, it increases general economic freedom and encourages female labour participation, as well as support for the domestic manufacturing sector.

Whereas in 2020 Algeria scored an average of 4.81 out of 10 on the Fraser Institute's Index of Economic Freedom, by 2026 the intervention takes Algeria to 5.8 (see Chart 16)—still significantly below the average score of 6.6 for OLMICs and 6.5 for UMICs.

If the GoA carried out reforms along these lines, female labour participation would improve by more than 12 percentage points between 2021 and 2026 to over 31%.

By 2040, the impact on the sectoral composition of Algeria’s economy is that the size of the energy sector shrinks by 2.3 percentage points of GDP and the size of the manufacturing sector increases by 1.3 percentage points of GDP. This could have labour-absorption impacts, as manufacturing is generally more labour intensive.

Agriculture, Water and Renewables

Agriculture is consistently cited as one of the GoA’s key priority areas and has the potential to improve the balance of
payments, reduce external food dependency and increase employment.

For these reasons, successive GoA plans have touted the expansion of cropland and irrigation, along with upgrading poor-quality water transport and distribution networks that contribute to water waste. The hope was that this would ensure long-term improvement in the agriculture sector, but it had little apparent effect.[7]

For example, in the five-year development cycle of 2014–2019, the government set itself a target of almost doubling the farmland under irrigation to roughly 2 million ha, boosting mechanisation, using drought-resistant seeds and promoting agriculture in the arid regions of the country.[8]

The National Union of Algerian Farmers believe that the country’s arable land could be expanded to 30 million ha in spite of recurring droughts, water shortages and the impact of climate change. However, such plans would likely require a four- or five-fold increase in water supply, which is only possible through much greater extraction of non-renewable fossil water resources.[9]

Algeria’s inherent lack of water resources amid a steady increase in its urban population paints a bleak picture for this resource into the future. The national water plan includes increasing water resources and promoting greater accessibility of potable water.[10] However, the sector is still rife with water quality challenges and wastage owing to the highly inefficient subsidies.[11]

To deal with these challenges, this scenario component invests in increased water supply, expands cropland by 2%, nearly 8.7 million ha, and increases land equipped for irrigation by 25 000 ha by 2031 from the current 1.254 million ha. This is in line with the GoA’s plans to modernise agriculture to help the country reach food self-sufficiency and cut foodstuff imports. However, this is still well below the 2 million ha target set by the GoA.[12]

It also improves agricultural crop yields in the country and reduces agricultural loss along the value chain and wastage at the consumer level. This scenario component increases the level of treated wastewater and reuse of that water for other productive activities, including for agriculture.

Algeria’s economy is heavily dependent on hydrocarbons. Although the fossil fuel industry has been responsible for revenue and associated developments in the country, it is a volatile source of income. This has reverberating consequences on the economy during drops in oil prices in the global market.

Additionally, it is necessary to transition to cleaner energy sources, as recognised in Algeria’s ambitious Renewable Energy and Energy Efficiency Programme.[13] The Algerian Renewable Market (RE) targets regulation and investment in the sector to meet its goal of producing 22 000 MW of electricity through renewables.

The country is also developing a roadmap to gradually transition to green energy.[14] This is in line with global efforts to combat the impact of climate change and promote more sustainable development.

This scenario component reduces the capital-to-output ratio on renewables by introducing modern technology. The government makes a greater push to invest in and boost renewable energy production. It also introduces and implements incentives to encourage a shift to cleaner energy, providing additional employment opportunities to improve health and overall human welfare.

Greater emphasis on agricultural production, food security and better management of water resources in this scenario component increases yields by about 12.8% to 3.3 tons per hectare by 2026, compared to 2.96 tons in 2020 (see Chart 17). By 2040 the agricultural sector is about €17.5 billion, compared to €13.9 billion in the Current Path.
The amount of wastewater treated and reused rises by roughly 46% from 0.123 km³ in the Current Path in 2026 to 0.18 km³. The production of other renewable forms of energy such as solar and wind also steadily increases to reach 0.003 billion barrels of oil equivalent (BBOE) by 2040. This represents an estimated 40% increase in production of renewable energy between 2021 and 2026.

**Chart 17: Yields (tonnes per hectare)**

Knowledge and Technology

Like most countries in the MENA region, education in Algeria has considerable untapped potential. Despite decades of impressive investment to boost enrolment and gender parity, the education system has not proportionately contributed to human capital, well-being and wealth.

A renewed focus on education in Algeria, specifically at the further education and tertiary level, is necessary. Key issues embedded in the region’s history, culture and political economy have been identified as impediments to the success of education in the overall MENA region. [15]

The ‘Knowledge and Technology’ component improves lower secondary graduation and upper secondary graduation, which are major bottlenecks. It also improves vocational training to address the need for technical skills and increases the rate of tertiary intake. Since the education system can be likened to a pipeline, owing to its slow-moving nature it is crucial...
to institute reforms sooner rather than later.

Given the technical nature of opportunities associated with Algeria’s hydrocarbon cluster, and associated manufacturing opportunities, it is likely that a partnership approach will be needed between it and regional or global partners to facilitate crucial knowledge transfer.

Such an initiative will have to be coupled with industrial development policies and targeted investment incentives in the private sector or through public-private partnerships (PPPs). These must be aimed at creating new ventures that harness new human resource capacity to reduce the ongoing brain drain.

The impact of the component improves lower secondary graduation rates from roughly 92.8% to 97.4%, upper secondary graduation from 76.5% to 84.5%, and upper secondary vocation from about 9.8% to 13.8% by 2040.

Algeria trails significantly behind its peers in ICT. The country has three main mobile service providers: state-owned Mobilis, Djezzy and Qatar’s Ooredoo. The rate of smartphone penetration is around 40%, according to official figures—a figure much lower than in other MENA countries, where the rate is 111%.[16]

Algeria also has one of the slowest fixed Internet speed connections in the world at 4.18 megabits per second (mbps). World leader Singapore boasts 153.85 mbps.[17] Though Algeria’s mobile Internet connections are faster at 7.23 mbps, only three other countries have slower services.[18]

Although there are over 45 million mobile handsets in Algeria, most of them are only used for phone calls and do not contribute much to the digital economy. This in spite of the fact that the country has invested quite heavily in Internet access. Fibre-optics run for over 60,000 km but only about 10% is used, as most regions with fibre installation wait for network upgrades.[19]

Social media is popular in Algeria and its use can be credited with the massive protests witnessed in the country, despite regular Internet shutdowns by the government. The low Internet connectivity issues are thus in part by design, in order to achieve a political goal. This is delaying Algeria’s digital participation and could isolate the country from the global economy.

This component scales up ICT and improves the Internet bandwidth per user and broadband in the country. As a result, subscriptions to fixed broadband increase from nearly 5.5 million people in 2021 to 9.8 million people by 2026. This is a 78% increase in the number of people with access to fixed broadband.

Whereas the ICT sector in the country currently contributes about 4.7% of GDP (compared to an average of 5.9% for OLMICs and 5.7% for UMICs), by 2040 the contribution of the ICT sector will be 5.5%, better, but still significantly behind that of its peers.

Improvements in digital services, including banking and public services, could also improve governance and the prospects of greater transparency, as well as crowd in a larger portion of the informal economy into the formal sector.

Comparing the impact of each component

Of all the components, ‘Transform the Economy’ has the greatest impact on the size of Algeria’s economy and GDP per capita. In 2040, compared to the Current Path, this component increases GDP by €51.4 billion—a boost of about 14%.
More rapid economic growth translates into robust improvements in GDP per capita and reflects the extent to which inefficiencies in the economy, particularly the dearth of economic opportunities, hamper growth.

Having greater economic freedom and systematically moving away from the closed and rentier framework of the current economy to a more open and conducive business environment can set Algeria on a much more positive trajectory that improves livelihoods and provides more opportunities.

In such an open business environment, the private sector is encouraged and appropriately incentivised to invest domestically. The large number of inefficient SOEs are reformed and eventually play a smaller role in the economy.

The second most impactful component is ‘Governance and Subsidy Reform’ (€26.8 billion). The effect of this component shows how much the current governance system and the inefficient and unsustainable subsidy system hinders growth.

Although executing broad governance changes are challenging, substantive democratisation, a steady reduction in inefficient broad subsidies for more modest but targeted social safety net programmes and greater government effectiveness would have a significant impact on productivity.

These improvements in economic freedom and ease of doing business are complemented by improvements in the policies and governance of ‘Agriculture, Water and Renewables’. The country would also move towards clean energy without compromising access to services such electricity and create new jobs. Additionally, such a climate change mitigation effort could have positive knock-on effects on the general quality of life and welfare of Algerians. In this component, the Algerian economy is approximately €5.2 billion larger relative to the Current Path in 2040.

The ‘Knowledge and Technology’ component records about a €10 billion increase in GDP in 2040 compared to the Current Path. The improvements in this scenario develop much slower compared to the other scenarios because of the generally slow-moving nature of educational outcomes and the time it takes to see benefits from investments in the sector.

Additionally, Algeria's trajectory in this regard is from a relatively high base and improvements are thus not as dramatic.

Improvements in per capita income follow the same trend. By 2040, Algerians have an additional €1,341 (expressed as the increase in GDP per capita) in ‘Transform the Economy’, €711 in the ‘Improved Governance and Subsidy Reform’ component, €274 in the ‘Knowledge and Technology’ component and €142 in the ‘Agriculture, Water and Renewables’ component, compared to the Current Path.

The improvements in GDP per capita change in 2026, 2030 and 2040 are outlined in Chart 18.
Extreme poverty at the US$3.20 threshold per person per day is reduced most significantly by the ‘Agriculture, Water and Renewables’ component. It has the largest impact until around 2027, when improvements in governance outpace its impact. This component underlines the importance of food security and good management of natural resources to the well-being of Algerians.

By 2040, the ‘Improved Governance and Subsidy Reform’ component has approximately 401,000 fewer Algerians surviving on US$3.20 per day relative to the Current Path.

The rentier mentality has proven incapable of increasing productivity and promoting innovation and long-term development. This scenario component shows that tackling the challenges in the Algerian political and economic system, putting in place transformative reforms and a creating new paradigm toward better governance and less wastage of resources could alleviate the suffering of many Algerians.

The impact of the ‘Transform the Economy’ component represents about 175,000 fewer poor Algerians than currently projected in 2040. However, in the initial five years of this intervention, Algeria sees a slight rise in the number of poor people. This is because of the massive resources and investments being redirected and dedicated to economic growth. Thereafter, these efforts create opportunities for employment and even entrepreneurship to start to reduce the number of people living in extreme poverty.

The ‘Agriculture, Water and Renewables’ component has about 156,000 fewer people living in extreme poverty compared to the Current Path in 2040.
The ‘Knowledge and Technology’ component records the lowest achievement in reduction of poverty (by 86,000 persons) of the four sectoral components, in part owing to the slow-moving nature of the formal education system and how long it takes before benefits start to manifest. Another reason is the fact that Algerian educational attainment levels are generally good and the factors contributing to poverty arise instead from inadequate economic opportunities for this educated mass.

The ‘Improved Governance and Subsidy Reform’ component has the greatest impact on inequality as measured by the Gini coefficient—a reduction of about 10.6% relative to the current national projection in 2040. This improvement is consistent with research that shows that more targeted subsidies can reduce poverty and thus inequality.

However, there is also literature arguing that in developing countries, with weak and inefficient bureaucracies, targeted subsidies tend to result in more inequality than universal ones.[20] This acknowledges the significant information asymmetry between the bureaucracy and the population, and that promotion of good governance is a necessary factor for targeted subsidies to work in Algeria.

The ‘Agriculture, Water and Renewables’ component reduces inequality by about 8% over the next 20 years. The ‘Knowledge and Technology’ component achieves the smallest impact in the reduction of inequality by over 5% in the same time horizon.

The nature and duration of formal education and the availability, or lack thereof, of economic opportunities for this skilled...
population in Algeria contribute to the relatively small impact of the latter sector.

Inequality as measured by the Gini coefficient (ratio between 0 and 1) slightly rises in the ‘Transform the Economy’ component (0.25) compared to current projections (0.246) by 2040. Although this is not a significant impact, it is important to highlight the fact that economic growth does not always necessarily result in inequality if accompanied by the right redistributive mechanisms.

This shows that although economic growth is good for overall development, it does not necessarily address the equitable distribution of resources. This is especially the case in resource-rich countries like Algeria where hydrocarbons dominate the economy and the production and resultant revenue remain in the hands of a small ruling elite.

The ‘Agriculture, Water and Renewables’ component leads to significant improvements in agricultural yields. By 2040, Algeria achieves 4.3 tons per hectare, compared to 3.57 in the Current Path in the same year. This is about a 46% increase from current levels at 2.96. As a result, food security also improves in Algeria.

Import dependence on foodstuffs drops by approximately 17 percentage points to about 27.5% in this component relative to the Current Path (44.6%) in 2040. This underscores the importance of domestic food production to improve the country’s food security, especially at a time when its foreign reserves are dwindling amid a pandemic that is also disrupting global supply chains.

The rest of the components do little to reduce import dependence. Although Algeria has been able to feed its people, its high levels of import dependence mean that the country is not food secure. Because of this, it is important for the GoA to ensure that governance and economic reforms complement each other and so encourage stability and socio-economic progress.
Endnotes

1. The Economist Intelligence Unit, *Algeria: Government presents its five-year plan*, 18 June 2014
2. The 12 sectors are: steel and metalworking, hydraulic binders, electrical and household appliances, industrial chemistry, mechanics and automotive, pharmaceutical production, aerospace, construction and ship repair, advanced technology, food processing, textiles and clothing, leather and timber products, wood and furniture industry, and outsourcing. See Embassy of People's Democratic Republic of Algeria in Pretoria, *Invest in Algeria*
3. Embassy of People's Democratic Republic of Algeria in Pretoria, *Invest in Algeria*
4. Transparency International, *Algeria*
6. Oxford Business Group, *Increase in domestic manufacturing to cut Algeria’s reliance on imports*
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16. L Chikhi, *Algerian mobile operator Djezzy added 1 million customers this year-CEO*, Reuters, 6 December 2018; Helgi Library, *Mobile phone penetration (as a % of population) fell to 117% in Algeria in 2017*, May 2019
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18. World Population Review, *Internet speeds by country 2020*
19. ITWeb Africa, *Algeria Telecom rolls-out controversial FTTH*, February 2018
21. Global Food Security Index, *Algeria*

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