Algeria

Annex with detail on project data changes and scenario interventions for location.

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Chart 38: Project Data File

This report used IFs version 7.84. All interventions start in 2024, interpolate to 2033 and then are maintained at that level unless indicated otherwise.

LIST OF INTERVENTIONS WITHIN IFs

All interventions are done from 2024 to 2033 and maintained afterwards unless otherwise stated.

Name	Description	Adjustments within IFs 7.84	Benchmark/Justification/Not
Current Path			
gdprext	GDP growth rate, exogenous target (%)	2022 - 2.931; 2023 - 2.636; 2024 -2.551	Updated using IMF World Economic Outlook - April 2023 forecast
Governance scenario			
democm	Democracy level multiplier	Interpolate from 1 to 1.2	Improves average democracy by 18.6% above Current Path forecast in

			2043 but average in 2043 still lower than South America and South Asia.
econfreem	Economic freedom multiplier	Interpolate from 1 to 1.12	Improves average economic freedom by 14.5% above Current Path forecast in 2043. Takes Algeria to above average for South Asia and South America in 2031.
gemm	Gender empowerment measure multiplier	Interpolate from 1 to 1.2	Improves GEM by 19.4% above the Current Path forecast in 2043. Algeria is still significantly below average for South America in 2043.
govcorruptm	Government corruption	Interpolate from 1 to 1.15	Improves government transparency by 26% above Current Path forecast in 2043. Average takes Algeria to above South Asia in 2028 but remains below South America.
goveffecttm	Government effectiveness (quality) multiplier	Interpolate from 1 to 1.15	Improves government effectiveness 21.2% above Current Path forecast in 2043. Gets to average for South Asia in 2033 still below averages for South America in 2043.
govregqualm	government regulatory quality	Interpolate from 1 to 1.15	Improve average regulatory quality by 24.2% above Current Path in 2043. Takes Algeria to above South Asia in 2029 and to average for South America in 2043.
stinstaball	State failure through instability (abrupt regime transition) event occurrence	Interpolate from 0 to 0.5	Improve IFs index to 0.5. Algeria is still below average for South Asia and South America.

sfinstabmag	State failure through instability (abrupt regime transition) magnitude	Interpolate from 0 to 0.1	Algeria is still below average for South Asia and South America.
sfintlwaradd	State failure/internal war probability	Interpolate from 0 to 0.4	Reduce IF index by -0.4. Algeria is still below average for South Asia and South America
sfintwarmagm	State failure through instability – magnitude	Interpolate from 1 to 0.8	Improves IFs government security index to 0.8. Algeria is still below average for South Asia and South America.
Demographics and Health scenario			
contrusm	Contraception use multiplier	Interpolate from 1 to 1.03	Algeria's average use (nearly 22 percentage points) is below South America (43 percentage points)
malmortatiom	Maternal mortality ratio multiplier	Interpolate from 1 to 0.78	The Rate in Algeria is much higher than for other comparable regions. The intervention moves Algeria closer to South America.
hlmortcdchldm	Communicable disease mortality multiplier for children under five	Interpolate from 1 to 0.78	Rates in Algeria are much higher than for other comparable regions. The intervention moves Algeria closer to South America.
hlmortm (AIDS)	Mortality multiplier	Interpolate from 1 to 0.9	Algeria's AIDS mortality rate is above the world average.
Education scenario			
edseclorvocadd	Lower secondary, vocational share, additive	Interpolate from 0 to 4	Improve the supply of relevant skills for future

			demand. From a very low base, this intervention raises the lower secondary vocational share from 2.1% in 2024 to 5.7% in 2043.
edsecupprvocadd	Upper secondary, vocational share, additive factor, decimal rate	Interpolate from 0 to 5	To improve the supply of relevant skills for future demand. As a benchmark, South Asia improved its upper secondary vocational share by fourfold from 2002 to 2012.
edtersciencshradd	Tertiary, Sci-Eng share of graduates, additive factor, decimal rate	Interpolate from 0 to 5	Improve the supply of relevant skills for future demand. The proportion of tertiary graduates who are in science and engineering among tertiary graduates quadrupled in South Asia.
edprigndreqintn	Primary gender parity-time for intake, years	Interpolate from 0 to 10	This is to create a more aggressive gradient and pushes gender parity rates closer to the 1:1 female-to-male ratio goal for intake at the primary level. As a result, gender parity in net primary enrolment is achieved as early as 2028 and maintained till 2043.
edseclowrtranm	Lower secondary transition rate multiplier	Interpolate from 1 to 1.1	South America increased its lower secondary transition rate by 27% from 1997 to 2007.
edseclowrgndreqtran	Lower secondary gender parity time for transition, years	Interpolate from 0 to 10	This is to create a more aggressive gradient and pushes gender parity rates closer to the 1:1 female-to-male ratio goal for intake at the lower secondary level. As a result, gender parity in net

			secondary enrolment occurs by 2035 in the Education scenario.
edsecupprtranm	Upper secondary transition rate multiplier	Interpolate from 1 to 1.1	To increase the proportion of students that transition from lower to upper secondary schools. This is to address the high dropout rate along the educational funnel, especially at the secondary level.
edsecupprgndreqtran	Upper secondary gender parity time for transition, years	Interpolate from 0 to 10	This is to create a more aggressive gradient and pushes gender parity rates closer to the 1:1 female-to-male ratio goal for intake at the upper secondary level. Owing to this, gender parity in net secondary enrolment occurs by 2035 in the Education scenario.
edseclowrgram	Lower, secondary, graduation rate, multiplier (male)	Interpolate from 1 to 1.3	Increase the proportion of students that complete the last grade of lower secondary. On the Current Path, Algeria will not meet the SDGs and Agenda 2063 goals.
edseclowrgram	Lower, secondary, graduation rate, multiplier (female)	Interpolate from 1 to 1.1	Increase the proportion of students that complete the last grade of lower secondary. On the Current Path, Africa will not meet the SDGs and Agenda 2063 goals.
edsecupprgram	Upper secondary, graduation rate, multiplier (male)	Interpolate from 1 to 1.3	Increase the proportion of students that complete the last level of upper secondary. On the Current Path, Africa will not meet

			the SDGs and Agenda 2063 goals.
edsecupprgram	Upper secondary, graduation rate, multiplier (female)	Interpolate from 1 to 1.1	Increase the proportion of students that complete the last level of upper secondary. On the Current Path, Africa will not meet the SDGs and Agenda 2063 goals.
edterintm	Tertiary, intake rate, multiplier, total	Interpolate from 1 to 1.15	As a benchmark, the tertiary enrolment rate more than doubled in South Asia from 2006 to 2016.
edtergndreqint	Tertiary, gender parity-time for intake, years	Interpolate from 0 to 10	This is to create a more aggressive gradient and pushes gender parity rates closer to the 1:1 female-to-male ratio goal for intake at the tertiary level.
edtergradm	Tertiary, graduation rate multiplier (female)	Interpolate from 1 to 1.1	South Asia increased its tertiary graduation rate from 5% in 2003 to 30% in 2013. Algeria will continue to lag behind South Asia's and South America's rates of over 30% graduation rate in 2043.
edtergradm	Tertiary, graduation rate multiplier (male)	Interpolate from 1 to 1.3	South Asia increased its tertiary graduation rate from 5% in 2003 to 30% in 2013. Algeria will continue to lag behind South Asia's and South America's rates of over 30% graduation rate in 2043.
jedqualpriallm	Quality, multiplier on primary (total)	Interpolate from 1 to 1.15	Algeria does not currently lag far behind South Asia in primary test scores albeit

			low. However, while South Asia's education scores are likely to improve quickly, Algeria is set to stagnate on the Current Path.
edqualsecallm	Quality, multiplier on secondary (total)	Interpolate from 1 to 1.2	Africa does not currently lag far behind South Asia in secondary test scores albeit low.
Agriculture scenario			
ylm	Yields multiplier	Interpolate from 1 to 1.3	Brazil doubled yields from 5.2 metric tons per hectare in 1980 to 10.4 in 2000 (a 100% increase in 20 years). Again, between 2000 and 2020, yields increased from 10.4 to 20.4 metric tons per hectare (a 96% increase). Several African countries have managed to sustain high increases over the past two decades (with growth exceeding 100% in 20 years), although most countries boast very low yields per capita and leave room for vast improvement.
landirareaequipm	Multiplier on land equipped for irrigation	Interpolate from 1 to 1.05	Algeria (dry climates) records fewer meteorological droughts, its dry climate necessitates irrigation through groundwater extraction. However, the country has already utilised irrigation extensively with fewer expansion possibilities; the smallest intervention is proposed in these countries.
aglossprodm	Loss rate of agricultural	Interpolate from 1 to 0.85	Reduces agricultural loss

	production (crop)		and waste as share of production by six percentage points (33% reduction) from 2023 to 2033.
aglosstransm	Loss rate of agriculture as it moves from producer to consumer, multiplier	Interpolate from 1 to 0.85	Reduces agricultural loss and waste as share of production by six percentage points (33% reduction) from 2023 to 2033.
waterwithdrawalm	Groundwater withdrawal (cubic km)	Interpolate from 1 to 1.02	Low intervention for groundwater-dependent for a country in desert and Mediterranean conditions.
infraroudraitrgtval	Road access target, fixed value percent	Interpolate to 90	Increase rural accessibility to all-weather roads. Target 90% access. Slow investment over 35 years but yields benefits.
infraroundraitgtyr	Road access target, years to reach	Interpolate to 35	Low intervention (85) set for Somalia, South Sudan, Central African Republic, Comoros and Namibia
Manufacturing scenario			
govhhtrnwelm (unskilled)	Government to household welfare transfers	Interpolate from 1 to 1.3	Welfare spending to cushion vulnerable people. The initial stage of the manufacturing-led structural transformation is often associated with poverty and inequality (developers' dilemma).
govbusregindm	Government regulation of business index multiplier	Interpolate from 1 to 0.98	To improve the business environment to stimulate private investment in the manufacturing sector.

			Between 2009 and 2019, the average score for South Asia on the Governance Regulatory Quality Index) increased by about 10%.
isdm	Investment in manufacturing sector	Interpolate from 1 to 1.05	The intervention is based on the African Industrialisation Index produced by the African Development Bank. Countries are divided into five quintiles by rank (top, upper-middle, middle, low-middle and bottom).
randdexpm	Increase research development activities (total)	Interpolate from 1 to 1.2	Building technological capability through R&D is crucial for a robust manufacturing sector. It stimulates innovation, increases productivity and improves the quality of products.
labparm	total labour participation rate (male & female), female more aggressive	Interpolate from 1 to 1.03 for male and 1.1 for female	Manufacturing growth should lead to direct and indirect employment in the sector. On average, the labour participation rate in low-income countries is higher than in lower- and upper-middle-income countries. Between 2000 and 2009, the labour participation rate in upper-middle-income Africa increased by 5%.
govrevm	Government revenues multiplier	Interpolate from 1 to 1.03	To increase the government's ability to support industrialisation and provide social grants to mitigate the initial increase in inequality associated with rapid structural transformation (Kuznet

			tension/developer's dilemma).
Infrastructure/Leapfrogging scenario			
qem - Q (OthRenew)	Capital cost to output ratio in energy (OthRenew)	Interpolate from 1 to 0.8	The intervention will reduce cost by nearly 20% below the Current Path forecast for Africa in 2043.
qem - Q (Hydro)	Capital cost to output ratio in energy (Hydro)	Interpolate from 1 to 0.8	The intervention will reduce costs by nearly 17% below the Current Path forecast in 2043.
infraelectranlossm	Electricity transmission loss multiplier	Interpolate from 1 to 0.85	Historically, South America reduced transmission loss by 10% between 2000 and 2010. Historical data indicates that transmission and distribution loss is highest at low income and lowest at high income. Therefore, from a low base, low-income countries can reduce loss by a larger percentage than high-income countries.
enpm (OthRenew)	Energy production multiplier for other renewables	Interpolate from 1 to 1.2	South America increased production of other renewable energy more than twofold between 2008 and 2014.
enpm	Energy production multiplier (Hydro)	Interpolate from 1 to 1.1	South America increased production of hydro by 44% between 2001 and 2011. According to the 2022 Hydropower Status Report, Africa has among the largest untapped potential for hydropower development in the world.

ictbroadmobilm	ICT mobile broadband multiplier	Interpolate from 1 to 3	South America was able to leapfrog mobile broadband connections more than threefold between 2010 and 2017 and South Asia by more than 20-fold during the same period.
ictbroadcostm	ICT broadband multiplier on cost of adding a connection	Interpolate from 1 to 0.8	A reduced cost of adding a connection improves connectivity to ICT broadband infrastructure. Algeria will need more broadband connections to leverage the opportunities that digitalisation offers. A reduction in the cost of mobile broadband will make it affordable and improve access.
ictmobilcostm	ICT mobile multiplier on cost of adding a subscriber	Interpolate from 1 to 0.8	A reduced cost of adding a connection improves connectivity to ICT broadband infrastructure. Algeria will need more broadband connections to leverage the opportunities that digitalisation offers. A reduction in the cost of fixed broadband will make it affordable and improve access.
ictbroadm	ICT broadband multiplier	Interpolate from 1 to 1.5	South America was able to leapfrog fixed broadband connections by 95% between 2010 and 2017 and South Asia more than twofold during the same period.
ictintnetm	Multiplier on Internet use	Interpolate from 1 to 1.2	
Infraroadpavedpcntm	Paved road	Interpolate from 1 to 1.1	

gdpinformshrm	Informal sector GDP multiplier	Interpolate from 1 to 0.89	South Asia reduced informality by 27% between 1999 and 2008. The intervention reduces informality in Africa by 11% below the Current Path forecast in 2043.
labinformshrm	Informal labour share multiplier	Interpolate from 1 to 0.98	
gdsm	Government expenditures multiplier	Interpolate from 1 to 1.25	
AfCFTA scenario			
mfpadd	Multifactor productivity growth additive factor	Interpolate from 0 to 0.011	Calculations or adjustments were based on annual average growth rates for the period 2010 to 2018, using the Penn World Tables data – TFP at current PPPs (USA=1)
XSM	Export multiplier – Manufacturing	Interpolate to 1.22 over 10 years	Note: Economic freedom is now part of Governance and not part of the AfCFTA scenario
XSM	Export multiplier – Agriculture	Interpolate to 1.22 over 10 years	
XSM	Export multiplier – Services	Interpolate to 1.2 over 10 years	
XSM	Export multiplier – ICT	interpolate to 1.1 over 10 years	
XSM	Export multiplier – Materials	Interpolate to 1.1 over 10 years	
XSM	Export multiplier – Energy	Interpolate to 1.05 over 10	

		years	
xshift	Export shift as a result of promotion of exports (Manufacturing) ratio	Interpolate to 0.008, over 10 years	In the World Bank policy research paper, export promotion agencies for developing countries will have an elasticity of 8%. In the World Economy paper, each additional export promotion agency increases exports by 6–10%.
mtarifftaxrm	Import tariff tax multiplier by country and sector: Agriculture	Interpolate from 1 in 2029 to 0.1 in 2042 (13 years)	Under the AfCFTA, agriculture products are under sensitive products, have a fixed 10% tariff. (See for example, tralac, African Continental Free Trade Agreement.) Non-sensitive products have a 100% tariff reduction under the AfCFTA.
	Materials	Interpolate from 1 in 2023 to 0.01 in 2033 (10 years)	Only a few products are under the 3% of the excluded products, for example, corrugated flat-rolled steel. Few manufactured products are under sensitive and excluded products.

	Energy, Service, and ICT sector	Interpolate from 1 in 2023 to 0 in 2033 (10 years)	
	Manufacturing sector	Interpolate from 1 in 2023 to 0.05 in 2033 (10 years)	
Financial Flows scenario			
xworkremitinm	Worker remittances multiplier (positive numbers are receipts)	Interpolate from 1 to 1.1	On average, low-income Africa receives more remittances than lower-middle-income countries. This intervention keeps remittance flows to Algeria above South America and below South Asia over the forecast horizon, in line with current and past trends. South Asia and South America are the two most comparable regions to African countries.
aidrecm	Aid (foreign) receipts multiplier	Interpolate from 1 to 1.1	On average, low-income countries in Africa receive more aid than lower-middle-income countries. Low-income countries in Africa rely more on aid. This intervention keeps aid flows to Algeria above South Asia and South America over the forecast horizon, in line with current and past trends.
xfdistockm	Foreign direct investment, stocks of investment from abroad, multiplier	Interpolate from 1 to 1.18	This intervention keeps FDI stocks in Algeria above South Asia and below South America over the

			forecast horizon, in line with current and past trends.
xfdistoutm	Foreign direct investment, stocks of outward investment, multiplier	Interpolate from 1 to 0.8	A proxy for a reduction in illicit financial flows.
xportfoliom	Portfolio investment, stocks of investment from abroad, multiplier	Interpolate from 1 to 2	Foreign portfolio investment in Algeria is very low, so the improvement will come from a very low base.
Combined Agenda 2063 scenario			
Combination of all the above			

Project Data file

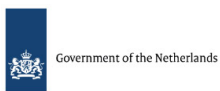| Data series	Years adjusted/ new data	Remarks
GDPGrowthRate	2021–2024	Updated the forecast with new data from IMF World Economic Outlook April 2023
SeriesGDPInformal%Blended	1993–2018	Updated with new data from the World Bank
SeriesPopulation	2021–2022	Updated with new data from ITU
SeriesCorruption	2012–2022	Updated with new data from Transparency International
SeriesEdSecLowerEnrollGross%Female	1998, 2012–2021	Updated with new data from UNESCO Institute for Statistics
SeriesEdSecLowerEnrollGross%Male	2015–2018	Updated with data from the National

		Statistics Office on account of enrolled learners. Calculated by dividing the count of learners from Algeria's national source and total age-appropriate children from UNESCO.
SeriesEdSecLowerEnrollGross%Total	1998, 2015–2018	Updated with data from UNESCO Institute for Statistics
SeriesEdSecUpperEnrollGross%Female	2015–2018	Update from National Statistics Office on the count of enrolled learners. Calculated by dividing the count of learners from Algeria's national source and total age-appropriate children from UNESCO.
SeriesEdSecUpperEnrollGross%Male	2015–2018	Update with data from the National Statistics Office on account of enrolled learners. Calculated by dividing the count of learners from Algeria's national source and total age-appropriate children from UNESCO.
SeriesEdSecUpperEnrollGross%Total	2015–2018	Update with data from the National Statistics Office on account of enrolled learners. Calculated by dividing the count of learners from Algeria national source and total age-appropriate children from UNESCO.
SeriesElecAccess%National	2020	Updated with new data from WDI
SeriesFreedom	2021–2023	Updated with new data from Freedom House
SeriesFreedomEcon	2020	Updated with data from Fraser Institute
SeriesGDP2011	2020–2022	Updated with new data from WDI
SeriesGovExpense%GDP	2012–2021	Updated with new data from WDI

SeriesHealthMararDthsper 1000000	2000–2021	Updated with new data from WHO (World malaria report 2022)
SeriesInfMortRateIHME	2018–2021	Updated with new data from WDI
SeriesLandAgri	2020	Update with new data from FAO_STAT
SeriesPopulationUrban	2021	Updated with new data from WDI
SeriesPopYouthBulgeBy15	2020–2021	Updated with new data from WDI
SeriesTFR	2020	Updated with new data from WDI
SeriesVaddInd%	2021	Updated with new data from WDI
SeriesVaddMan%	2021	Updated with new data from WDI
SeriesVaddSer%	2021	Update with new data from WDI
SeriesDeliberativeDemocracyIndexVDEM	2017–2022	Updated with new data from Varieties of Democracy
SeriesEgalitarianDemocracyIndexVDEM	2017–2022	Updated with new data from Varieties of Democracy
SeriesElectoralDemocracyIndexVDEM	2017–2022	Updated with new data from Varieties of Democracy
SeriesLiberalDemocracyIndexVDEM	2017–2022	Updated with new data from Varieties of Democracy
SeriesParticipatoryDemocracyIndexVDEM	2017–2022	Updated with new data from Varieties of Democracy
SeriesGovernanceEffect	2017–2021	Updated with new data from World Bank - Worldwide Governance Indicators

SeriesGovernanceRegQual	2017–2021	Updated with new data from World Bank - Worldwide Governance Indicators
SeriesGiniExtended	2000–2020	UNU Wider

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Cite this research

Blessing Chipanda (2024) Algeria. Published online at futures.issafrica.org. Retrieved from https://futures.issafrica.org/geographic/countries/algeria/ [Online Resource] Updated 02 May 2024.

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Dr Blessing Chipanda joined the African Futures and Innovation (AFI) programme in January 2023. Before joining the ISS he worked as an assistant lecturer/ research assistant at the University of Pretoria, Department of Economics. He is particularly interested in tasks within the wider realm of international trade, development economics, public policy, monetary policy, and econometric modelling. Equally interested in economic and socio-economic activities that impact social welfare. Blessing has a PhD in economics from the University of Pretoria, South Africa.

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Scenarios and forecasting can help Africa identify and respond to opportunities and threats. The work of the African Futures & Innovation (AFI) program at the Institute for Security Studies aims to understand and address a widening gap between indices of wellbeing in Africa and elsewhere in the world. The AFI helps stakeholders understand likely future developments. Research findings and their policy implications are widely disseminated, often in collaboration with in-country partners. Forecasting tools inspire debate and provide insights into possible trajectories that inform planning, prioritisation and effective resource allocation. Africa's future depends on today's choices and actions by governments and their non-governmental and international partners. The AFI provides empirical data that informs short- and medium-term decisions with long-term implications. The AFI enhances Africa's capacity to prepare for and respond to future challenges. The program is headed by Dr Jakkie Cilliers.