Tunisia
Sectoral Scenarios for Tunisia

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Stability scenario

Chart 13: Governance security in CP and Stability scenario, 2019–2043

Tunisia

The Stability scenario represents reasonable but ambitious reductions in risk of regime instability and lower levels of
internal conflict. Stability is generally a prerequisite for other aspects of development and this would encourage inflows of foreign direct investment (FDI) and improve business confidence. Better governance through the accountability that follows substantive democracy is modelled separately.

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

Socio-political and economic stability are requisite factors for sustainable development in Tunisia. Issues around domestic security, challenges in consolidating democratic institutions and the fragmented political establishment are testament to the political and economic development uncertainties ahead. Without political consensus, trust and comprehensive structural reforms, the goals and promises of the Jasmine Revolution will remain elusive for Tunisia.

Given the turbulence in the country since December 2010 and the civil war in neighbouring Libya, regional instability feeds off Tunisia’s large shadow economy and rampant smuggling in southern border towns such as Ben Guerdane.

In a scenario where political and social consensus/contract is achieved, stability, as demonstrated in the governance security index (which ranges from 0 to 1, where 0 is unstable and 1 is stable), improves to 0.93 compared to 0.86 in the Current Path forecast in 2033. Such an improvement would require much greater internal stability and, from a regional perspective, an end to the civil war in Libya.

In this scenario, GDP per capita increases by about 1.5%, representing US$185 more in the pocket of the average Tunisian relative to the Current Path forecast at US$12 840 in 2033. By 2043, per capita income in the Stability scenario is estimated...
at US$14 835 compared to US$14 323 in the Current Path forecast.

Additionally, a more stable political and policy environment would increase investor confidence and encourage capital flow in the form of FDI into the country. Such investments would likely also create jobs thus increasing income levels in the country.

At the US$3.20 poverty threshold, Tunisia will have 40 000 fewer people in poverty, compared to the Current Path forecast at 1.03 million in 2033 (i.e. 7.9% poverty rate in the Current Path forecast compared to 7.6% in the Stability scenario). By 2043, only about 4.7% of the population will be living under the US$3.20 poverty line, compared to 5.3% in the Current Path forecast (710 000 people in the Current Path forecast and 637 000 in the Stability scenario).

Political consensus creates a more stable environment for people to look for and engage in meaningful economic activity that alleviates poverty.
This section presents the impact of a Demographic scenario that aims to hasten and increase the demographic dividend through reasonable but ambitious reductions in the communicable-disease burden for children under five, the maternal mortality ratio and increased access to modern contraception.

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

Demographers typically differentiate between a first, second and even a third demographic dividend. We focus here on the first dividend, namely the contribution of the size and quality of the labour force to incomes. It refers to a window of opportunity that opens when the ratio of the working-age population (between 15 and 64 years of age) to dependants (children and the elderly) reaches 1.7.

Interventions in this scenario significantly improve the demographic dividend of Tunisia and by 2037 the country will experience a second peak at 1.97 working-age persons per dependant (a slightly lower peak than 2.25 in 2011). This means that for every 197 working-age persons there will be 100 dependants, compared to the Current Path's 1.95 for every dependant by then.
The infant mortality rate is the number of infant deaths per 1 000 live births and is an important marker of the overall quality of the health system in a country.

Tunisia has already met the 2030 SDG target to reduce infant mortality to 25 deaths per 1 000 live births. The Demographic scenario reduces infant mortality to 6.8 deaths per 1 000 live births compared to 7.8 in the Current Path forecast by 2033. By 2043, the infant mortality rate is 5.8 relative to 6.6 in the Current Path forecast.
The impact of the Demographic scenario on per capita income is negligible, indicative of the fact that Tunisia has above average reproductive health indicators and a relatively stable population growth. The challenge to development is largely around the dearth of economic opportunities for its relatively good stock of human capital.
At the US$3.20 extreme poverty level, the Demographic scenario has little impact on poverty in the country. The country already has impressive basic human development indicators and boasts progressive social policies and programmes.
This section presents reasonable but ambitious improvements in the Health/WaSH scenario, which include reductions in the mortality rate associated with both communicable diseases (e.g. AIDS, diarrhoea, malaria and respiratory infections) and non-communicable diseases (NCDs) (e.g. diabetes), as well as improvements in access to safe water and better sanitation. The acronym WaSH stands for water, sanitation and hygiene.

The intervention is explained in [here](#) in the thematic part of the website.

Tunisia introduced free healthcare on independence and has since made significant investments in the sector. As a result, it is estimated to have gone through its epidemiological transition during the late 1960s and early 1970s. Since then, non-communicable diseases (NCDs) have been the primary cause of death, replacing communicable diseases.

The country’s health system is mostly burdened by NCDs which are the result of urbanisation and lifestyle change and are mostly prevalent amongst older cohorts of the population. NCDs are inherently more expensive to diagnose and treat and will present challenges to the country’s health system owing to its ageing population.

Generally, Tunisia’s health indicators perform well. Life expectancy is high and was about 76 years in 2019 and is projected to improve to about 80.3 years by 2043 in the Current Path forecast. In this scenario, life expectancy reaches 80.8 years by 2043, nearly four years above the global average. Unsurprisingly, female life expectancy is consistently higher than that of...
The decline in infant mortality from the Current Path forecast and the Health/WaSH scenario will be slight at 6.6 and 6.5 by 2043, respectively. This will be 19.4 fewer infant deaths compared to the lower middle-income countries average on the Health/WaSH scenario by then.
Agriculture scenario

The Agriculture scenario represents reasonable but ambitious increases in yields per hectare (reflecting better management and seed and fertilizer technology), increased land under irrigation and reduced loss and waste. Where appropriate, it includes an increase in calorie consumption, reflecting the prioritisation of food self-sufficiency above food exports as a desirable policy objective.

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

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

Agriculture is an important element of the Tunisian economy. It is one of the world's largest producers and exporters of olive oil and one of the few African countries that is fully self-sufficient in dairy products, vegetables and fruit but heavily dependent upon imports of wheat. The sector contributes about 12% of GDP and employs roughly 16% of Tunisia's labour force. Food dependence exceeded 55% of consumption in 2019.

Interventions in the Agriculture scenario increase crop yields by about 2.6% from 2.72 tons per hectare in the Current Path forecast in 2033. By 2043, yields will reach about 3.02 tons per hectare compared to 2.92 in the Current Path forecast. This scenario shows the agricultural potential that could be harnessed with a more efficient agricultural system.
Improved agricultural yields also impact the level of import dependence in the country. In this scenario, Tunisia becomes a net exporter of agricultural products by 2035. From a food security perspective, this is much more favourable for the country as it would no longer be vulnerable to international price shocks and would adequately meet the food demands of its population.
The contribution of agriculture to GDP is already forecast to decline although the sector is still vital for those living in rural areas where agriculture is still the main economic activity. As such, GDP per capita improves slightly in this scenario. GDP per capita will be US$65 and US$109 higher compared to the Current Path forecast for 2033 and 2043, respectively.
Agriculture is one of the most effective ways to lift people out of extreme poverty, especially in a rural context, and in Tunisia, this scenario reduces the number of people in extreme poverty (US$3.20) from nearly 1.03 million people (7.9% of the population) to 1 million (7.7%) in 2033. By 2043, 21,000 fewer people than in the Current Path forecast (689,000 people) would be in extreme poverty.
The Education scenario represents reasonable but ambitious improved intake, transition and graduation rates from primary to tertiary levels and better quality of education. It also models substantive progress towards gender parity at all levels, additional vocational training at secondary school level and increases in the share of science and engineering graduates.

The intervention is explained in [here](#) in the thematic part of the website.

Tunisia has achieved remarkable progress in education outcomes since independence by investing in pre-primary education and making education free and compulsory for students aged six to 16. At present, Tunisia has the second most educated population in North Africa after Libya and ranks ninth on the continent, as measured by the average years of education attained by Tunisian adults (15 years and older).

The considerable number of well-educated young Tunisians without economic opportunities contributed to the Freedom and Dignity Revolution. Bottlenecks are, however, starting to emerge at the upper secondary and tertiary level.

The mean number of years of education helps to gauge the stock of human capital in a population. Owing to how long the benefits of education take to manifest, improvements in educational indicators are slow. In this scenario, the mean years of education as shown in Chart 26 will be 9.9 years compared to 9.7 in the Current Path forecast in 2043. The mean
number of years of female education will stand at 9.8 years against 10 years for males. This demonstrates the gender disparity that still exists in the education system in Tunisia, although beyond the secondary level, female students persist and perform better than their male counterparts (inverse gender disparity).

Chart 27: Education quality in CP and Educ scenario, 2019–2043

Average test scores for primary and secondary learners

Beyond improvements in the total number of students with access to education, the quality of primary education improves by 6.1 percentage points from 38.7 in the Current Path forecast by 2033, and secondary school test scores surpass the 50th mark by 2028. By 2043, primary test scores reach 47.1 compared to 40.4 in the Current Path forecast, while secondary test scores reach 58, relative to 48.4 in the Current Path forecast. These improvements would be attributed to improved curriculums, better learning facilities and supplies, improved teacher-student ratio and well-trained instructors.
Because of the protracted nature of formal education and the time it takes for it to impact the income level of an individual and increase productivity in the economy, per capita income improves slowly, and a significant increase is only recorded much later in the forecast horizon. By 2043, this scenario yields US$327 more for the average Tunisian than in the Current Path forecast at US$14,323.
In the scenario in Chart 29, reduction in income poverty also only manifests itself much more significantly towards 2043. By 2043, 71,000 fewer people will be living below the US$3.20 extreme poverty line, and this represents 4.73% of the population compared to 5.26% (639,000 people) in the Current Path forecast.
Manufacturing scenario

The Manufacturing/Transfers scenario represents reasonable but ambitious manufacturing growth through greater investment in the economy, investments in research and development, and promotion of the export of manufactured goods. It is accompanied by an increase in welfare transfers (social grants) to moderate the initial increases in inequality that are typically associated with a manufacturing transition. To this end, the scenario improves tax administration and increases government revenues.

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

Chart 31 should be read with Chart 8 that presents a stacked area graph on the contribution to GDP and size, in billion US$, of the Current Path economy for each of the sectors.

The manufacturing sector is important in creating employment, increasing productivity, changing the structure of an economy and ultimately reducing poverty. In this scenario, the contribution of manufacturing to GDP in Tunisia will increase from 29.1% of GDP in 2019 to 33.8% in 2038 and 31.9% in 2043. Although the difference in the 2043 forecast is only 0.5% of GDP in that year, it equates to a manufacturing sector that is US$3.2 billion larger than on the Current Path forecast in that year alone.
This scenario also increases welfare transfers to unskilled workers by US$2.8 billion over the Current Path forecast, reaching US$8.8 billion in 2043.

Targeted approaches are necessary for the effectiveness of such programmes to ensure they reach the poorest and most vulnerable in society.
Owing to the intensive capital required to make investments in manufacturing, per capita income will increase slowly in the first few years. However, by 2033, GDP per capita will increase by US$414 relative to the Current Path’s US$12,840. By 2043, GDP per capita will be US$818 higher than on the Current Path forecast.
The combined impact of the Manufacturing/Transfers scenario only significantly affects poverty from 2024. By 2033, only 6.5% of the population (847,000 people) will be living in extreme poverty at US$3.20 compared to 7.9% (1.03 million) in the Current Path forecast. By 2043, only about 3.1% of the population (416,000) would be in extreme poverty compared to 5.3% (710,000) in the Current Path forecast.
Leapfrogging scenario

The Leapfrogging scenario represents a reasonable but ambitious adoption of and investment in renewable energy technologies, resulting in better access to electricity in urban and rural areas. The scenario includes accelerated access to mobile and fixed broadband and the adoption of modern technology that improves government efficiency and allows for the more rapid formalisation of the informal sector.

The intervention is explained in [here](#) in the thematic part of the website.

Fixed broadband includes cable modem Internet connections, DSL Internet connections of at least 256 KB/s, fibre and other fixed broadband technology connections (such as satellite broadband Internet, ethernet local area networks, fixed-wireless access, wireless local area networks, WiMAX, etc.).

Tunisia has great potential to improve its ICT sector for greater access to digital technology and innovation which can facilitate the country’s development process and preclude some of the traditional development catch-up processes.

Tunisia already has one of the most developed telecommunications infrastructures in North Africa, with some of the continent’s highest market penetration rates. The mobile sector in particular has experienced exceptional growth since...
competition was introduced in 2002. By 2017, Tunisia had recorded 14.2 million mobile subscribers with over 124 subscriptions per 100 people. Forecasts in 2019 estimated that Tunisia had 15.1 million subscribers and 128.7 subscriptions per 100 people.

A nationwide fibre-optic backbone and international access via submarine cables have supported the rapid development of the Internet sector. In 2017, an estimated 7.4 million people were connected to mobile broadband and 2019 forecasts projected roughly 9.5 million people.

However, the sector is characterised by low levels of competition owing to high entry barriers. Because of limited competition and restrictions on inter-operator services, Tunisian consumers pay very high prices, which affect firms’ competitiveness and efficiency. As a result, ICT is largely confined to basic communications and not fully integrated into the economy. Tunisia is thus not reaping the full benefits of ICT, in spite of the fact that its value-added contribution to the economy is comparable to that in upper middle-income countries.

The Leapfrogging scenario increases subscriptions per 100 people on fixed broadband to 43.8 by 2033 compared to 21.8 in the Current Path forecast. By 2043, it is expected to reach about 50 subscriptions per 100 people, relative to 34.4 in the Current Path forecast. This is slightly higher than the average for lower-middle-income countries at 47.5 in the Leapfrogging scenario by 2043.

Chart 35: Mobile broadband access in CP and Leapfrogging scenario, 2019–2043
Subscriptions per 100 people

Source: IIPs 7.03 initialising from International Telecommunication Union data

Mobile broadband refers to wireless Internet access delivered through cellular towers to computers and other digital devices.
Mobile broadband subscriptions are already saturated beyond the 100 mark and thus increases in this scenario are not as remarkable. Tunisia only performs marginally better than the average of lower middle-income countries which have also surpassed the 100 subscriptions mark.

Tunisia has already achieved universal electricity access and thus the improvements are quite small in this scenario. By 2043, 100,000 more people will have access to electricity compared to 13.4 million people in the Current Path forecast. The largest increase will be observed in rural areas where there is still inadequate basic infrastructure.
As shown in Chart 37, this scenario increases GDP per capita by US$207 over the Current Path forecast in 2033 and by US$392 by 2043.
This scenario only modestly reduces poverty and by the end of the forecast horizon, about 4.8% of the population (645,000 people) compared to 5.3% (710,000) in the Current Path forecast will be living in extreme poverty.
Free Trade scenario

The Free Trade scenario represents the impact of the full implementation of the African Continental Free Trade Area (AfCFTA) by 2034 through increases in exports, improved productivity and increased trade and economic freedom.

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

Given the low levels of intra-regional trade in the North African region, it is no surprise that almost 80% of Tunisia’s exports go to the European Union (EU) rather than to its neighbours. The lack of regional integration in North Africa is a major constraint on development in the region.

Negotiations for a Deep and Comprehensive Free Trade Area (DCFTA) between the EU and Tunisia launched on 13 October 2015 to include agriculture and services are expected to create new trade and investment opportunities and ensure Tunisia is better integrated into the EU single market; however, the domestic impact is contested.

Additionally, almost one-third of goods traded in the domestic market are imported illegally. This is because of Tunisia’s high import taxes, outdated regulations and corrupt customs officials that deter business people from complying with official trade and currency exchange laws. A comprehensive review of business regulations and customs practices can draw Tunisians back into the formal economic sector.
The Free Trade scenario could potentially open up new markets for Tunisia and increase the volume of exports in the country so that by 2024, the country starts to record a positive trade balance.

Because trade is largely a national phenomenon that often excludes those in rural areas, trade openness would increase income in Tunisia on the assumption that there is equitable distribution. This scenario increases per capita income so that by 2033 and 2043, the average Tunisian earns US$273 and US$1025 more, respectively, over the Current Path forecast.
A predictable policy environment and reduced constraints on trade positively impact extreme poverty by increasing the number and quality of jobs, thus stimulating growth and productivity. However, poverty in Tunisia is largely a rural phenomenon and this presents real challenges for the extremely poor to benefit from trade opportunities. In the Free Trade scenario, the per cent of the population in extreme poverty only drops towards the end of the forecast horizon when it reaches 4.3% (582 000 people) against 5.3% (710 000 people) in the Current Path forecast, as shown in Chart 41.
Financial Flows scenario

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

The intervention is explained in [here](#) in the thematic part of the website.

During his time as president, ousted Ben Ali and his clique stole large amounts of money but the practices did not stop in 2011. Tunisia loses a significant amount of money - around 3% of GDP - annually to illicit financial flows, much of that through smuggling with Libya and Algeria.[1]

Compared to most countries in sub-Saharan Africa, the share of foreign aid revenue is relatively small. However, Tunisia still needs foreign aid to reconstruct its political system and spur economic growth and financial development goals. It is estimated that, on average, a minimum increase of 6% of GDP per year in foreign aid would be needed to finance key development goals.[2]

This scenario modestly increases foreign aid until around 2034 before it starts declining to reach 0.63%, compared to 0.68% in the Current Path forecast.
Foreign direct investment (FDI) to Tunisia has gradually decreased over the last decade. The political and economic instability since 2011 has impacted the inflow of FDI in the country. The global financial crash of 2008 also played an equally large role in the drop in FDI.

This scenario increases FDI flows to about 4.7% of GDP compared to 3.5% in the Current Path by 2033 and to 4.1% over the Current Path’s 3.5% in 2043. The rate of FDI inflow in Tunisia performs better than the average of lower middle-income countries at 4.08% of GDP in 2033, however, by 2043, the lower middle-income average outpaces Tunisia at 3.99% of GDP under the Financial Flows scenario.
Remittances are a lifeline for many poor families in low and lower middle-income countries like Tunisia. This scenario increases remittances to about 1.4% of GDP (US$1.43 billion) compared to 1.2% (US$1.21 billion) in the Current Path forecast in 2043.
This scenario increases GDP per capita to about US$14,639 compared to US$13,323 in the Current Path forecast in 2043.
The decline in the number of extremely poor people in this scenario is quite modest because FDI does not necessarily benefit the average person and would depend on the destination sector(s) to make a significant impact.

By 2043, extreme poverty only declines by 0.17 percentage points, relative to the Current Path forecast at 5.3% of the population. This represents 688 000 people, 22 000 fewer people in extreme poverty than in the Current Path forecast in 2043.
Infrastructure scenario

The Infrastructure scenario represents a reasonable but ambitious increase in infrastructure spending across Africa, focusing on basic infrastructure (roads, water, sanitation, electricity access and ICT) in low-income countries and increasing emphasis on advanced infrastructure (such as ports, airports, railway and electricity generation) in higher-income countries.

Note that health and sanitation infrastructure is included as part of the Health/WaSH scenario and that ICT infrastructure and more rapid uptake of renewables are part of the Leapfrogging scenario. The interventions there push directly on outcomes, whereas those modelled in this scenario increase infrastructure spending, indirectly boosting other forms of infrastructure, including that supporting health, sanitation and ICT.

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

Tunisia has a relatively well-developed basic infrastructure system. Basic utilities and services like water, sanitation, electricity, telecommunications and transport were rolled out in the 1980s as part of the broader push on economic and human development.

Although Tunisia has achieved significant success in expanding access to improved water sources and sanitation facilities, water scarcity has long been a challenge in North Africa, complicated by rapid urbanisation and climate change.
The energy sector in Tunisia is heavily subsidised through a complex system. It was estimated that energy subsidies accounted for 12% of GDP (TND 5,600 million). Tunisia has achieved universal access to electricity with about 97% of Tunisia's electricity generation coming from fossil fuels, mostly from domestic and imported natural gas, almost half of which comes from Algeria. The energy law of 2015 also encourages independent power producers (IPPs) to invest in renewable energy.

Because Tunisia has already achieved universal electricity access, the impact of this scenario is minimal.

Indicator 9.1.1 in the Sustainable Development Goals refers to the proportion of the rural population who live within 2 km of an all-season road and is captured in the Rural Access Index.

In this scenario, by 2043 the rural population with access to an all-weather road increases to 59.2% compared to 57.1% in the Current Path forecast.
This scenario increases GDP per capita to about US$14,552 compared to US$14,323 in the Current Path forecast in 2043, a US$229 increase.
Tunisia's basic infrastructure is generally good. The reduction in the number of extremely poor people (using US$3.20) in this scenario is small. By 2043, extreme poverty will only drop by 0.25 percentage points, relative to the Current Path forecast at 5.3% of the population. This represents 676,000 people in poverty compared to 710,000 in the Current Path forecast in the same year.
Governance scenario

The Governance scenario represents a reasonable but ambitious improvement in accountability and reduces corruption, and hence improves the quality of service delivery by government.

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

As defined by the World Bank, government effectiveness ‘captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies’.

Governance is a central pillar to sustained development. Improving the quality of governance in Tunisia increases the level of government effectiveness, i.e. the ability of the government to raise revenue and provide basic services to its people. To date, the country’s enormous potential has stagnated as a result of an opaque political and insider/outside economic system that constrains opportunity and forces many into the informal and parallel economy. Tunisia lacks a clear development vision and orientation that can drive the allocation of scarce resources for the future. Meanwhile, challenges such as high unemployment rates, especially amongst university graduates, and regional inequalities persist. Also, Tunisia’s significant subsidies on energy, fuel, food and transport and a large public service wage bill are exacerbating inequality and straining the government’s coffers.
In this scenario, government effectiveness is higher than the Current Path forecast in 2043 by about 2.2%.

This scenario increases GDP per capita to about US$14,671 compared to US$14,323 in the Current Path forecast in 2043.
The decrease in the number of extremely poor people in this scenario is relatively small. By 2043, extreme poverty will only drop by 0.41 percentage points, relative to the Current Path forecast at 5.3% of the population. This represents about 655 000 people living in extreme poverty compared to 710 000 in the Current Path forecast.
Impact of scenarios on carbon emissions

This section presents projections for carbon emissions in the Current Path for Tunisia and the 11 scenarios. Note that IFs uses carbon equivalents rather than CO² equivalents.

Undertaking the various interventions outlined towards Tunisia’s development have ecological costs. The rate of carbon emissions is accelerated and this has environmental impacts which the government must assess accordingly, especially in light of climate change in their development policy framework.

The Manufacturing/Transfers scenario will be the biggest emitter of carbon until about 2041 when the Free Trade scenario outpaces it, as shown in Chart 54.
Endnotes

1. A Abderrahmane, 6 July 2022, Curbing Tunisia’s crippling illicit financial flows, ISS Today
2. DESA, Development Policy and Analysis Division, Tunisia highlights
3. JC Nyawo and P Mashau, 2019, The Development of the Rural Roads Network for Sustainable Livelihoods in South African Local Municipalities, Gender and Behaviour, 17(1)

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Dr Jakkie Cilliers is the ISS's founder and former executive director of the ISS. He currently serves as chair of the ISS Board of Trustees and head of the African Futures and Innovation (AFI) programme at the Pretoria office of the ISS. His 2017 best-seller Fate of the Nation addresses South Africa's futures from political, economic and social perspectives. His three most recent books, Africa First! Igniting a Growth Revolution (March 2020), The Future of Africa: Challenges and Opportunities (April 2021), and Africa Tomorrow: Pathways to Prosperity (June 2022) take a rigorous look at the continent as a whole.

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