Libya

Libya: Current Path

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Libya: Current Path forecast

Chart 1: Political map of Libya

This page provides an overview of the key characteristics of Libya along its likely (or Current Path) development trajectory. The Current Path forecast from the International Futures forecasting (IFs) platform is a dynamic scenario that imitates the continuation of current policies and environmental conditions. The Current Path is therefore in congruence with historical patterns and produces a series of dynamic forecasts endogenised in relationships across crucial global systems. We use 2019 as a standard reference year and the forecasts generally extend to 2043 to coincide with the end of the third ten-year implementation plan of the African Union's Agenda 2063 long-term development vision.

As a result of the ongoing conflict in Libya, the data and forecasts for Libya that follow often diverge from other sources and should be considered provisional.

Libya is part of the Maghreb region in North Africa, a member of the Arab Maghreb Union (AMU) and the Common Market for Eastern and Southern Africa (COMESA). In 1998, the former president Muammar Gaddafi, established the Community of Sahel-Saharan States (CEN-SAD) that became the most recent among the eight regional economic communities recognised by the African Union, with its secretariat located in Tripoli. Together with Algeria, Angola, the Republic of the Congo, Equatorial Guinea, Gabon and Nigeria, Libya is one of seven African members of the Organization of Petroleum Exporting Countries (OPEC) that includes Saudi Arabia and others.

Libya is bordered by the Mediterranean Sea to the north, Egypt to the east, Sudan to the south-east, Chad to the south, Niger to the south-west, Algeria to the west and Tunisia to the north-west. Its climate is dominated by the hot and arid Sahara desert but moderated along the coast by the Mediterranean Sea.

Libya gained independence as a kingdom in 1951 under King Idris I, who was eventually overthrown during a bloodless coup in 1969 by Colonel Muammar Gaddafi. Gaddafi ruled for 42 subsequent years during which Libya's previously close relations with the West were replaced by a strong pan-Arab orientation and irregular engagements with the rest of Africa. Gaddafi was overthrown in August 2011 as the Arab Spring washed over much of North Africa and killed by rebel forces shortly thereafter. The country has been unstable since.

Parliamentary elections in 2012 and an agreement to form a national unity government in 2015 have not been able to halt growing insecurity. The country's descent into a civil war destabilised large parts of the Sahel through the spread of arms and fighters. In September 2011, the United Nations Support Mission for Libya (UNSMIL) was established to support the country's transitional authorities in their efforts to bring stability to the country. It has seen its mandate extended annually

ever since. Authority was transferred to a General National Congress but, by 2014, two rival authorities claimed to govern Libya, each backed by a number of African and non-African countries. An eventual October 2020 ceasefire agreement was followed by the establishment of a Government of National Unity several months later but national elections, originally scheduled for December 2021, have been repeatedly postponed.

Libya is classified as one of Africa's seven upper middle-income countries — a classification it is likely to lose once the civil war ends given the extent of destruction that has occurred since 2011 and normal data collection is able to resume.

Demographics: Current Path

In 2019, Libya's population was 6.5 million, expected to increase to 7.5 million by 2043. The median age in Libya was 28.6 years in 2019, expected to increase to almost 37 years in 2043. In Africa, only Morocco, Tunisia, Seychelles and Mauritius had a higher median age in 2019. Total fertility rates in Libya have come down very rapidly since the mid-1970s to below 2.2 in 2019, therefore close to the replacement rate of 2.1 births per woman. By 2030, fertility rates in Libya will be at 1.9 births per woman and will probably level off at that rate. As a result, Libya's population cohort structure is rapidly changing with a declining portion of its population below 15 years of age (from 28% in 2019 to 19% in 2043), a growing potential labour force (15 to 64 years of age) that will peak in 2033 before starting to decline, and a growing elderly population. Libya's population aged 65 and older was 4.8% in 2019 and by 2043 will increase more than threefold to 16%, implying significant increases in health costs given the prevalence of more expensive non-communicable diseases in its larger elderly population.

Finally, recent years have seen the number of migrants, refugees and internally displaced persons within Libya increase as a result of the internal conflict.

Because of its generally arid climate, Libya has Africa's second highest portion of its population in urban areas at 82% (representing 5.3 million people) and is close to saturation level. Only Gabon was more urbanised in 2019. Future urban growth will therefore consist of the natural increase in Libya's existing large urban population with little rural–urban migration. By 2043, more than 84% of Libya's population (4.9 million people) will be urban. The high level of urbanisation in the country has contributed to its low fertility rates: Libya has the third lowest fertility rate in Africa.

Tripoli is the largest city with more than a million inhabitants, followed by Benghazi and Misrata — all located on the Mediterranean coastline, with its more temperate climate.

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Chart 4: Population density map for 2019

Given its relatively small population and large land area, Libya is sparsely populated, with almost half of its population of 6.5 million people living in the capital city Tripoli. With 0.37 people per hectare in Libya in 2019, only Namibia has a lower population density in Africa. Globally, Libya has the fifth lowest population density.

Economics: Current Path

Because of the ongoing conflict in Libya, the data and forecasts presented on this page should be considered provisional.

The size of Libya's economy is inextricably linked to the oil price, given its dependence on oil exports and its size has fluctuated accordingly. Following the discovery of large oil reserves in 1959, Libya's economy has grown exponentially and peaked in nominal size with the global oil crisis in 1973, again after 1979 and then shortly before 1990, and then stagnating thereafter. Since the price of crude oil has generally increased steadily from its low level in 1998, [1] the country's economy has grown in commensurate size thereafter. In 1990, Libya had the fifth largest economy in Africa. Even in 2019 it was considered to have the seventh largest economy in Africa at US$73.4 billion.

Libya's formal economy is dominated by the public sector with a very small private sector, estimated at only about 5% of GDP. [2] Reflected in its observer status with the World Trade Organization and lack of a trade agreement with the neighbouring European Union (EU), Libya's trade relations and integration with the regional and global economies are limited.

Income from oil meant that Libya was able to maintain large trade surpluses. Oil exports have plummeted in recent years as the civil war took its toll although production is now recovering. The African Development Bank [3], for example, believes that Libya's real GDP shrunk by 60.3% in 2020 largely due to a blockade of major oil fields for most of the year.

Historically, Libya gets over 95% of its export earnings and 60% of its GDP from the petroleum sector and has been able to invest significant resources in the provision of health, education and other social services to the extent that it boasts some of Africa's highest scores on various indices of well-being such as rates of infant mortality, years of education and life expectancy.

In the Current Path forecast, Libya's economy will increase to US$178.4 billion in size in 2043, at which point it will be the 13th largest economy in Africa (with one of Africa's smallest populations) as it is overtaken in size by other African countries with much more rapidly growing populations. In 2043, Libya will have the 13th largest economy in Africa.

Libya's state-funded ICT sector, estimated to contribute 11% to GDP in 2015, 12.6% in 2019, and increasing to 14.7% of GDP in 2043 in the Current Path forecast, is among the largest in Africa (other data sources have it as smaller). However, a large portion of its telecom infrastructure was damaged and disrupted during and after the 2011 conflicts and is not captured in the associated forecasts. The numbers within IFs would imply that its ICT sector contributes more than double the average for upper middle-income Africa and, indeed, for the upper middle-income group globally. Various studies have found that high levels of Internet access facilitated popular mobilisation during the events known as the Arab Spring that culminated in the overthrow and death of Ghaddafi in 2011. The sector is, however, fragmented and the forecast does not capture the damage inflicted during the Arab Spring events.

Libya has the largest oil reserves in Africa, larger even than those of Nigeria, implying that stability could unlock significant revenues that would last for several decades. Its gas reserves are the fourth largest in the continent, behind only Algeria, Nigeria and Egypt.

Although many of the charts in the sectoral scenarios also include GDP per capita, this overview is an essential point of

departure for interpreting the general economic outlook of Libya.

Given the lack of economic diversification, Libya's GDP per capita inevitably tracks its incomes from oil and gas. In 1991, Libya boasted Africa's highest GDP per capita but lost ground thereafter, eventually to only recover to its 1991 peak in 2010, shortly before the Arab Spring during which incomes fell by more than half. Recovery started in 2019, only to fall back as the peace agreement (and oil exports) faltered.

The most recent data in IFs is for 2019 and presents GDP per capita at US$20 296 making Libya the third highest GDP per capita in Africa and above the estimated average of US$14 235 for upper middle-income countries in Africa in the same year. Other sources, such as the World Bank [4], estimate its GDP per capita for that year at much lower levels, with large year-on-year changes, implying that the forecasts presented here should be treated with care. Libya's large oil reserves would indicate significant potential to rapidly grow, however.

Leaving recent annual fluctuations aside, in the Current Path forecast, GDP per capita in Libya will increase to US$31 250 in 2043, then ranked third highest in Africa, bested only by Equatorial Guinea and Seychelles. The estimated GDP per capita for Libya in 2043 will also be 76% higher than its income peers on the continent.

IFs estimates the size of the informal sector in Libya at 14% of GDP (equivalent to US$10.1 billion) in 2019, roughly equivalent to the average for upper middle-income countries in Africa. On the Current Path, the informal sector is projected to decline to 9% (US$16.1 billion) in 2043, 62% lower than the average for its income peers in Africa. Among Africa's seven upper middle-income countries, only South Africa and Mauritius had smaller informal sectors in 2019, although Africa's upper middle-economies all tend to have a larger informal sector than the global average for this income group (average difference is about 6 percentage points lower). The civil war will have resulted in a substantial increase in the size of Libya's informal and illicit sectors.

The IFs platform uses data from the Global Trade and Analysis Project (GTAP) to classify economic activity into six sectors: agriculture, energy, materials (including mining), manufactures, service 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

Like most other African countries, the Libyan economy is dominated by the service sector at 49.2% (or US$36.1 billion) of GDP in 2019 (although some 8 percentage points below the average for upper middle-income Africa). Libya's manufacturing sector, at 21% in 2019 (US$15.4 billion), is comparable in its contribution to GDP with the average for upper middle-income Africa. Its ICT sector at 12.6% (US$9.24 billion) is almost double the average for upper middle-income countries, while the materials sector is half the average at 2% (US$1.4 billion) in 2019. The Current Path forecast is that the service sector maintains its large contribution (50%, equivalent to US$89.4 billion), a modest increase in the contribution from manufactures (to 27.3% or US$48.8 billion) and a decline in agriculture (to 1.9% or US$3.3 billion) in 2043. The largest shift, within IFs, is in the energy sector (at almost 21% in 2015 and just below 12% in 2019 or US$8.6 billion) that declines to 3% of GDP (or US$5.3 billion) in 2043. This is because IFs initialised its forecast from 2015, at which point oil production was very low. The materials sector grows modestly to almost 3% of GDP by 2043 (US$5.2 billion) and ICT to almost 15% (US$26.5 billion). The agriculture sector [5] is forecast to decline from 4.7% in 2015 to 3.6% in 2019 and 1.9% (US$3.3 billion) in 2043.

Libya's formal economy is dominated by the public sector with a very small private sector and limited competition.

Compared to the averages for upper middle-income Africa, the contribution from Libya's energy, agriculture and ICT sectors is large; its service sector is small, as is the contribution from materials. Libya has a particularly large ICT sector, even by global comparative standards.

The data on agricultural production and demand in the IFs forecasting platform initialises from data provided on food balances by the Food and Agriculture Organization (FAO). IFs contains data on numerous types of agriculture but aggregates its forecast into crops, meat and fish, presented in million metric tons. Chart 9 shows agricultural production and demand as a total of all three categories.

Only 1% (or 2 million hectares) of Libya's land area is suitable for crop cultivation and 7.5% for grazing. With around 263 000 hectares under irrigation, agriculture contributed around 3.5% to GDP (or US$2.6 billion) in 2019. No historical data is available for agricultural production in Libya. The IFs pre-processor estimates 2019 production and demand at over 8 million metric tons and that the country imported around 296 000 tons of agricultural products. By 2043, production and demand will increase to 10 million tons.

According to the FAO, crop and livestock production are a significant source of food security for many Libyan households, which tend to be small producers, with the result that a comparatively large proportion of Libyans (22%) are engaged in some form of agriculture production. [6]

The ongoing civil conflict, the COVID-19 pandemic and the devaluation of the Libyan dinar have increased food insecurity in Libya over the last decade.

Poverty: Current Path

There are numerous methodologies for and approaches to defining poverty. We measure income poverty and use GDP per capita as a proxy. In 2015, the World Bank adopted the measure of US$1.90 per person per day (in 2011 international prices), also used to measure progress towards the achievement of Sustainable Development Goal (SDG) 1 of eradicating extreme poverty. To account for extreme poverty in richer countries occurring at slightly higher levels of income than in poor countries, the World Bank introduced three additional poverty lines in 2017:

- US$3.20 for lower middle-income countries
- US$5.50 for upper middle-income countries
- US$22.70 for high-income countries.

Together with other countries in North Africa, Libya met the goal of eliminating extreme poverty (using US$1.90) in 2018. However, using US$5.50 for upper middle-income countries, 1.3 million Libyans (20.12%) lived in extreme poverty in 2019; this number will decline to 369 000 (4.9%) in 2043 in the Current Path forecast.

The ongoing conflict will have an impact on these rates and numbers. Throughout the forecast period, the proportion of extreme poverty in Libya was lower than the average for upper middle-income countries in Africa with the poverty gap widening from 26.1 percentage points in 2019 to 34.8 percentage points in 2043.

Carbon Emissions/Energy: Current Path

The IFs platform forecasts six types of energy, namely oil, gas, coal, hydro, nuclear and other renewables. To allow comparisons between different types of energy, the data is converted into billion barrels of oil equivalent (BBOE). The energy contained in a barrel of oil is approximately 5.8 million British thermal units (MBTUs) or 1 700 kilowatt-hours (kWh) of energy.

In 2010, before the Arab Spring, Libya produced 596 million barrels of oil and 101 million barrels of gas (in oil equivalent). Production tumbled to 173 million barrels in 2011 and see-sawed thereafter to an all-time low in 2015, the last point of data on oil production within the IFs system. At that point, Libya produced 148 million tons of oil. Other sources of energy production within IFs are marginal. The International Energy Agency [7] records a strong recovery in oil production in 2019 and indicates that gas production has remained largely unaffected by the ongoing conflict.

In 2013, the Libyan government launched the Renewable Energy Strategic Plan 2013–2025, which aims to achieve a 7% wind and solar contribution to the electric energy mix by 2020 and 10% by 2025. [8]

Carbon is released in many ways, but the three most important contributors to greenhouse gases are carbon dioxide (CO_2), carbon monoxide (CO) and methane (CH_4). Since each has a different molecular weight, IFs uses carbon. Many other sites and calculations use CO_2 equivalent.

Due to its large oil and gas activities, the estimate within IFs is that Libya was the fifth largest carbon emitter in Africa, releasing 25 million tons of carbon, forecast to increase to 28.3 million tons in 2043, at which point it will be the tenth largest carbon emitter on the continent. Given the lack of clarity on oil and gas production in recent years, the carbon emissions forecast is speculative.

Endnotes

1. See, for example, Statista, Average annual OPEC crude oil price from 1960 to 2022 (in U.S. dollars per barrel)
2. African Development Bank/OECD/United Nations Development Programme, Libya, in African Economic Outlook 2017: Entrepreneurship and Industrialisation, OECD Publishing, Paris, 2017, 8
3. African Development Bank Group, Libya Economic Outlook
4. World Bank, GDP per capita, PPP (constant 2017 international $) — Libya
5. Other sources indicate a smaller agriculture sector. Global Agricultural Information Network, Libya Exporter Guide, 6 March 2020, 3
6. FAO, Libya: the impact of the crisis on agriculture, 12 March 2020
7. International Energy Agency, Libya
8. International Energy Agency, Libya

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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 oce 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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