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EU-AFRICA

LIGHTENING UP THE PARTNERSHIP

EU STUDY 5.18

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EU-AFRICA

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DECEMBER 2018

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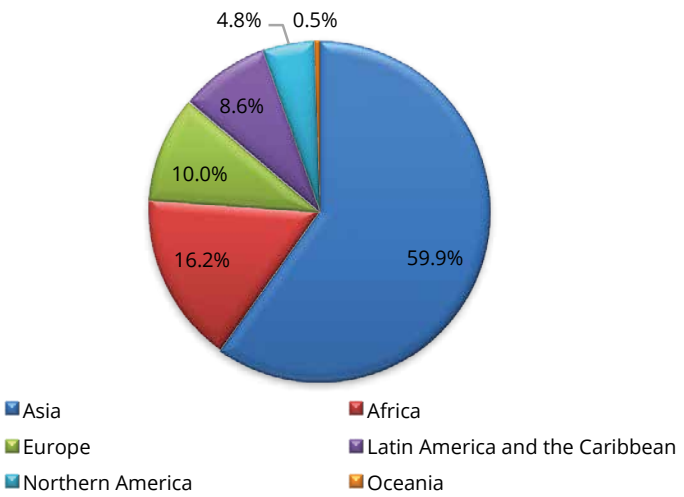
1. AFRICAN ECONOMY OUTLOOK

1.1. DEMOGRAPHIC AND ECONOMIC TRENDS BY COUNTRY AND SECTOR

Population is one of the main drivers for the progress of a country and its future prospects for social and economic growth. Thus, it is crucial to outline the main figures and projections of the African population. In 2015, according to UN data, Africa numbered 1.19 billion people out of a global population of almost 7.4 billion (16.2% as shown in Fig.1.1). Asia was the most populous continent with a 59.9%, due to the demographic performance of China and India. Europe represented only 10% of the global population.

Fig. 1.1 Share of global population, by continent (2015)

Source: I-Com elaboration on UN population data

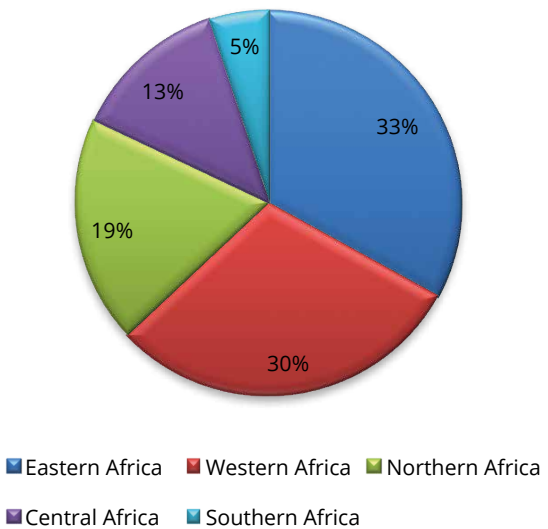


It is important to look into more detail at the internal African demographic situation. In doing so, we can divide African countries into five regions (Eastern Africa, Central Africa, Northern Africa, Southern Africa, Western Africa), following an international classification[1]. In 2015, Eastern Africa had the highest population with almost 400,000 inhabitants (33% of the total African population) (Fig. 1.2). Western Africa closely followed with more than 350,000 inhabitants (30%), while Southern Africa had the lowest population with only 63,000 inhabitants (5%).

For the purpose of the study, evaluating the future

Fig. 1.2 Share of African population, by region (2015)

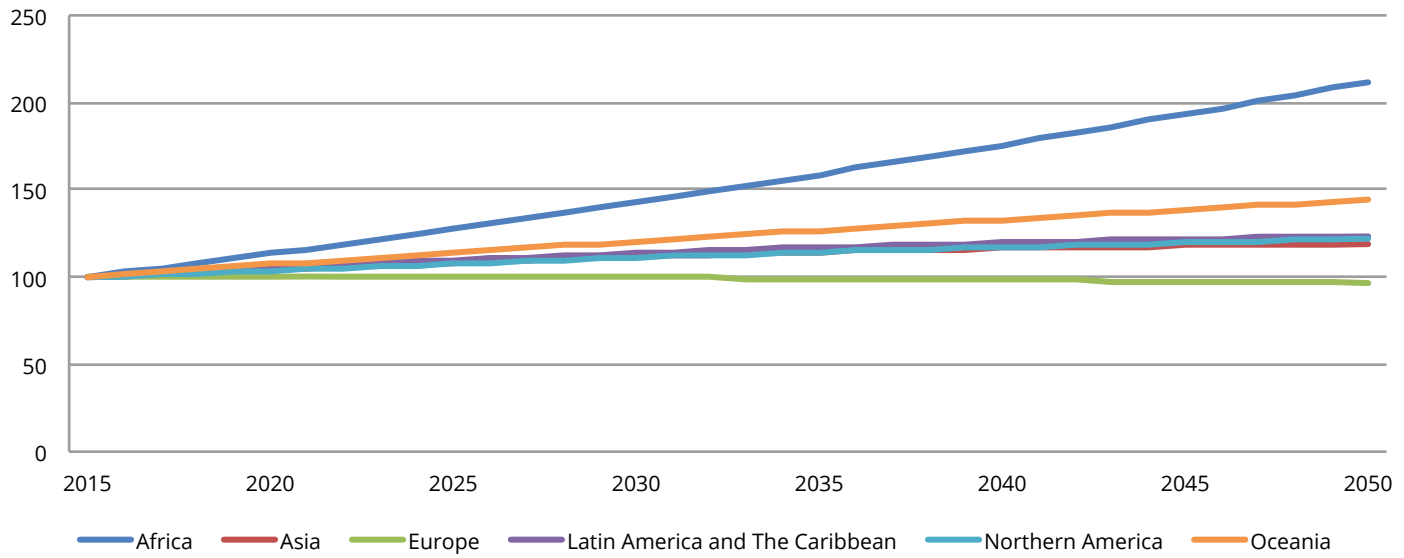
Source: I-Com elaboration on UN population data



1 See the Annex A.1 for the list of African countries by region

Fig. 1.3 World population forecast, by continent (2015=100)

Source: I-Com elaboration on UN population data



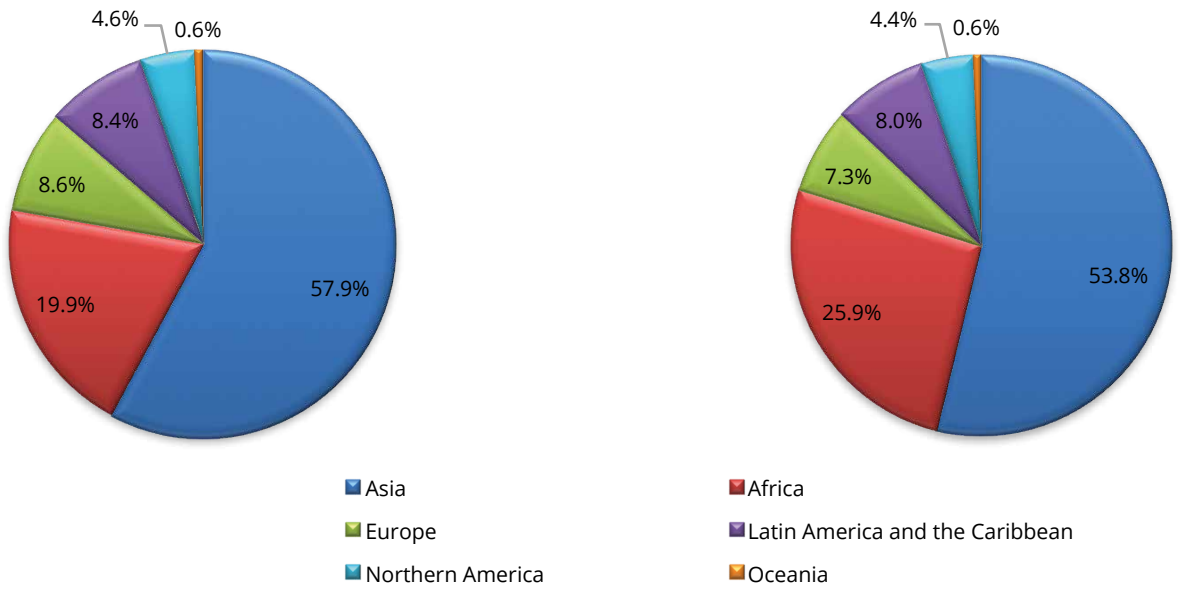
population evolution is even more important than assessing the present data. Looking at the population forecasts to 2050, we can see that African population will grow at a very considerable rate, quite different to the other continents.

Using 2015 as base year (2015=1000), the African population will reach 212 in 2050 (UN population data). This means that Africa will more than double its population in 35 years. In absolute values, it is an increase from 1.19 billion in 2015 to 2.5 billion in 2050. Oceania holds second place for population growth rate, although with much lower absolute values, increasing from 39.5 million (2015) to 57.1 million people (2050). Instead, according to the UN forecasts, Europe is the only continent that will reduce its 2050 population, dropping from almost 741 million in 2015 to around 715 million in 2015.

This large gap in population growth forecasts will change the global population share, with Africa increasing its share from 16.2% in 2015 to19.9% in 2030 and 25.9% by 2050 (Fig. 1.4). It is the only continent that will increase its world population percentage. Asia, Northern America and Latin America will reduce their relative shares, despite their populations growing in absolute values. This is due to their population growth rate not compensating for the African growth rate.

Fig. 1.4 Share of global population forecast, by continent (2030, 2050 prospect)

Source: I-Com elaboration on UN population data



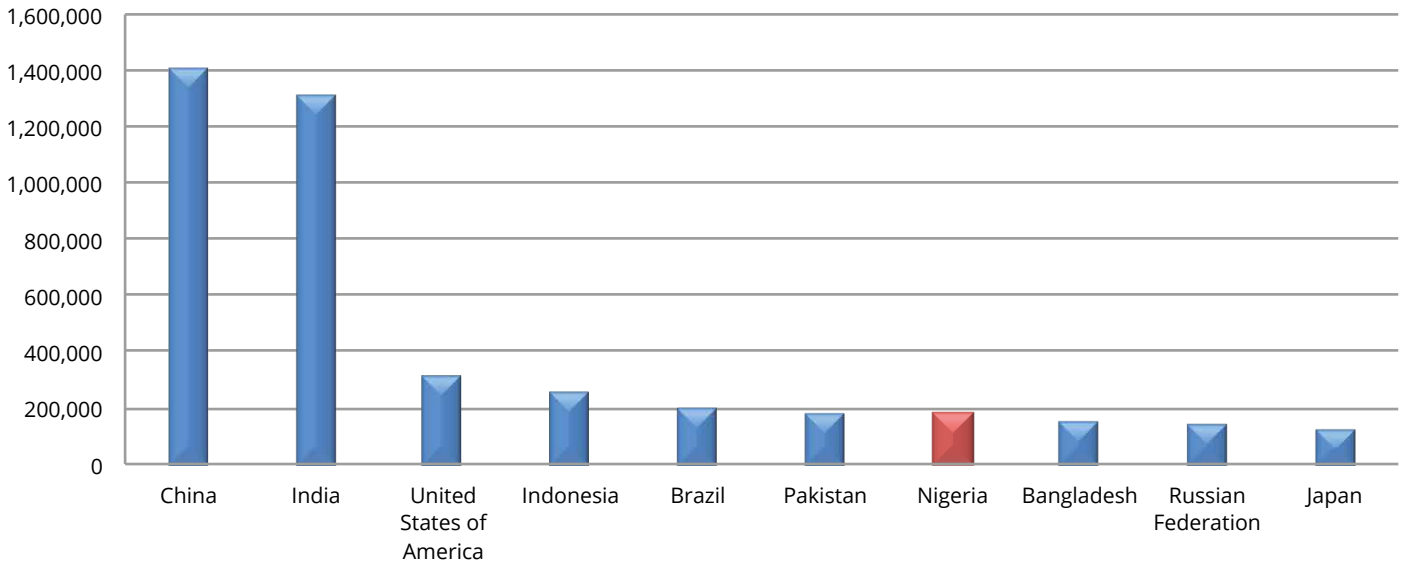
More African states will appear in the global scenario by population size. In 2015, only one African country was in the world's leading ten countries by population – Nigeria placed in 7th position with 181 million people (Fig. 1.5). In 2050, the same ranking will show three African countries – Nigeria, the Democratic Republic of the Congo and Ethiopia, in the 3rd, 9th and 10th positions, respectively.

African population growth will be mainly driven by two factors – the birth rate and the increase in life expectancy. If we look at the world's top ten countries by birth rate, we find ten African countries (Fig.1.6). In 2015, Africa showed an average birth rate equal to 35.9, being almost double the world birth rate at 19.6, and more than three times the European birth rate (10.8). The top ten countries by birth rate registered very high rates – Niger (49.2), Chad (45.2) and Mali (44.7).

Africa is still facing a very low life expectancy rate compared to the global average. For births between 2010 and 2015, Africa registered a life expectancy of 60.23 per year, compared to the world rate of 70.79 with higher rates for Europe and Northern America (77.2 and 79.17). However, since life expectancy in Africa will gradually improve, this ten-year gap will be reduced in the coming decades. By 2030, it will be 7.5 years and by 2050 5.7 years, with African life expectancy reaching 71.9 years, a ten year life expectancy increase in 50 years.

Fig. 1.5 Ten most populous countries in the world (2015, 2050 forecast)

Source: I-Com elaboration on UN population data



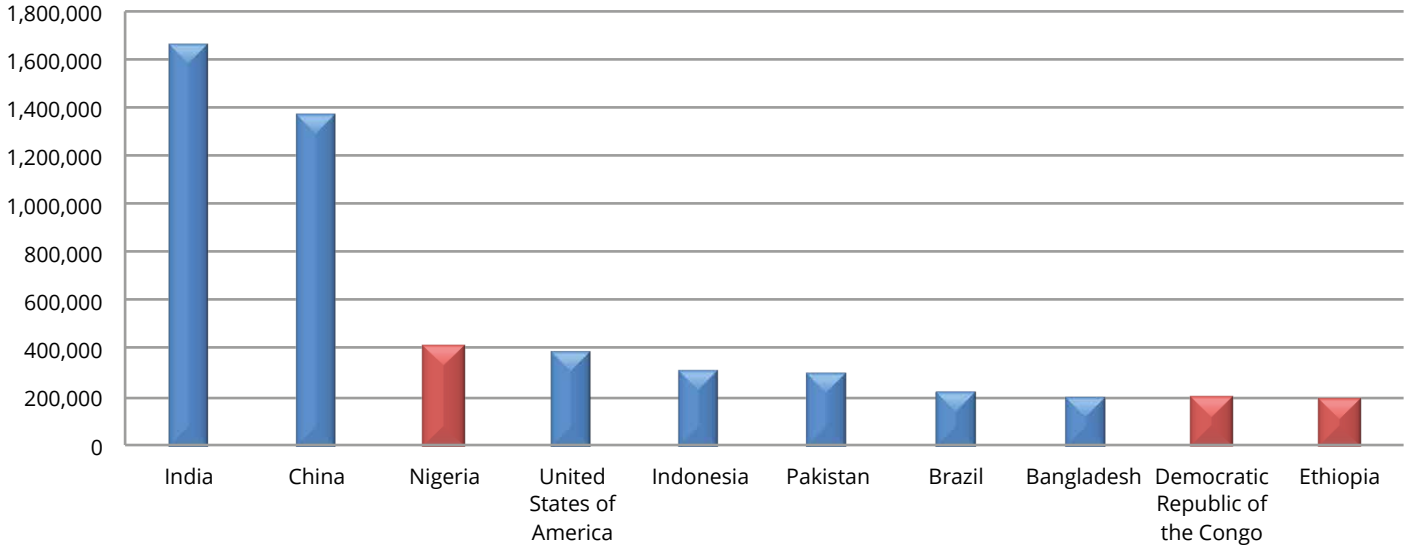
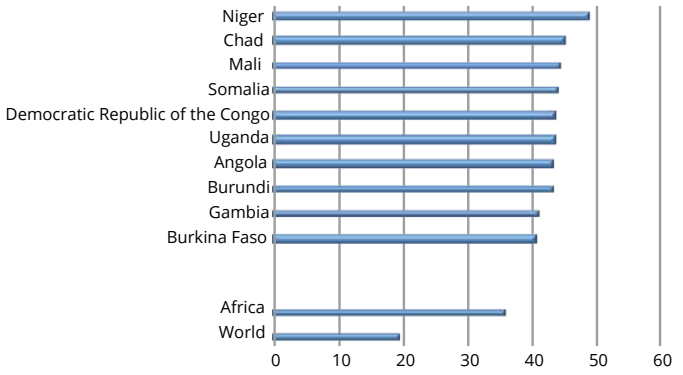


Fig. 1.6 Leading countries, crude birth rate* (2015)

Source: I-Com elaboration on UN population data



** Number of births over a given period divided by the person-years lived by the population over that period. It is expressed as average annual number of births per 1,000 population.*

Finally, taking into consideration the population by age, African countries show a median age much lower than the other continents. In 2015, it was 19.4 years, while the global average was 29.6 years. Europe had a median age of 41.6 years.

Looking into more detail, it is forecasted that the regional percentages for population will not significantly change. Eastern Africa will increase from 33% in 2015 to 35% by 2050, while Western Africa will reach 32% of the African total, from 30% in 2015. Instead, Northern Africa will drop 5% by 2050, representing 14% of the continent's population. Where specific countries are concerned, according to UN forecasts, Nigeria will maintain its 1st position among African States by population with more than 410 million inhabitants, doubling its current

Fig. 1.7 Ten most populous countries in Africa (2050 forecast)

Source: I-Com elaboration on UN population data

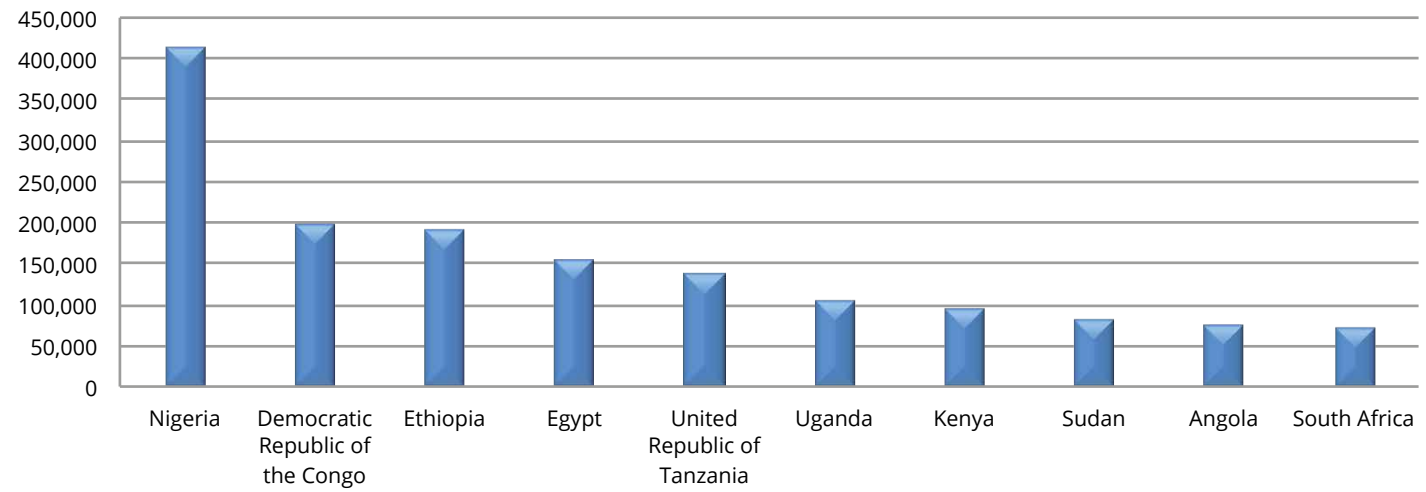
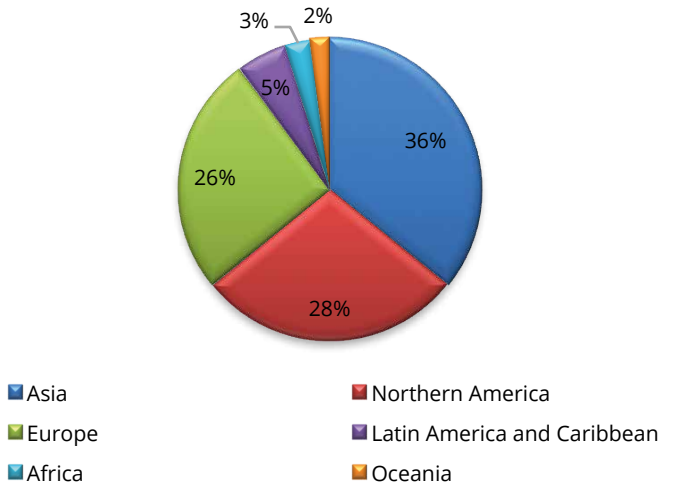


Fig. 1.8 Share of global GDP, by continent (2017)

Source: I-Com elaboration on IMF data

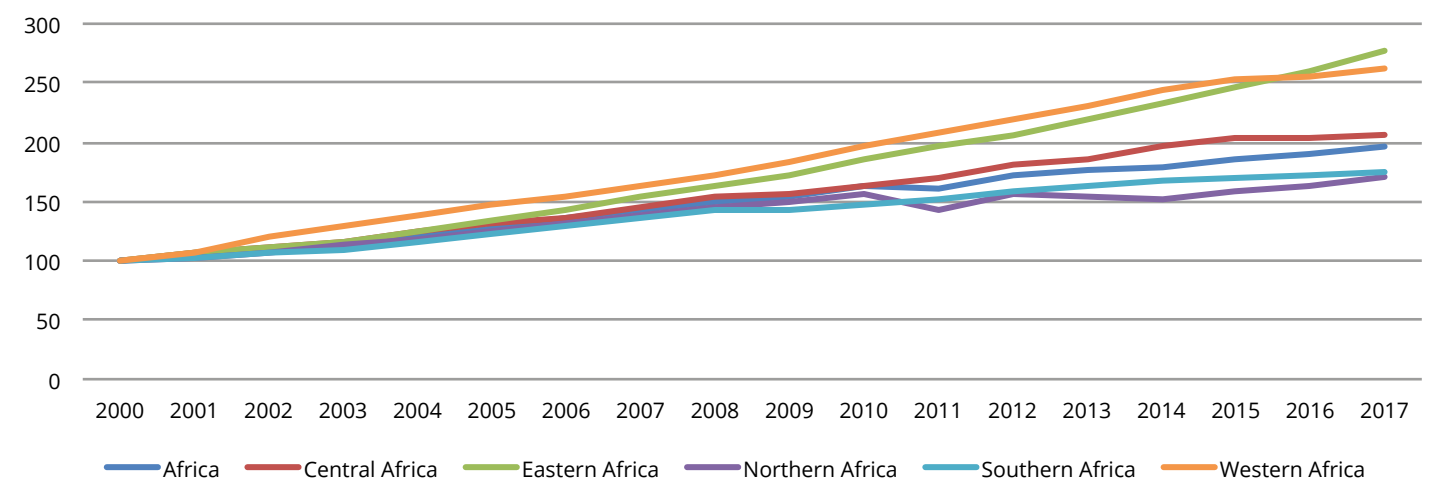


population, followed by the Democratic Republic of Congo (197 million), Ethiopia (190), Egypt (153) and the United Republic of Tanzania (138). The top ten African countries by population in 2050 will represent approximately 60% of total African population.

Moving on, we can look at the current African economic trend. Africa represents about 3% of global GDP (Fig. 1.8). Asia, Northern America and Europe, together, account for 90% of global GDP, representing, respectively, 36%, 28% and 26%. Africa's percentage has remained quite constant in recent years (about 2% in 2000), while in the last decade Asia has surpassed Europe and Northern America, becoming the main continent by GDP. However, since 2000, Africa's GDP has almost tripled in absolute values, reaching almost US$ 2,200 billion in 2017. Africa

Fig. 1.9 GDP, by region (2000=100)

Source: I-Com elaboration on AfDB data



is well behind even for GDP per capita. In 2017, African GDP per capita was about US$ 1,800, while European and Northern American GDP was at US$ 27,430 and US$ 45,760, respectively, and Asia close to US$ 6,690.

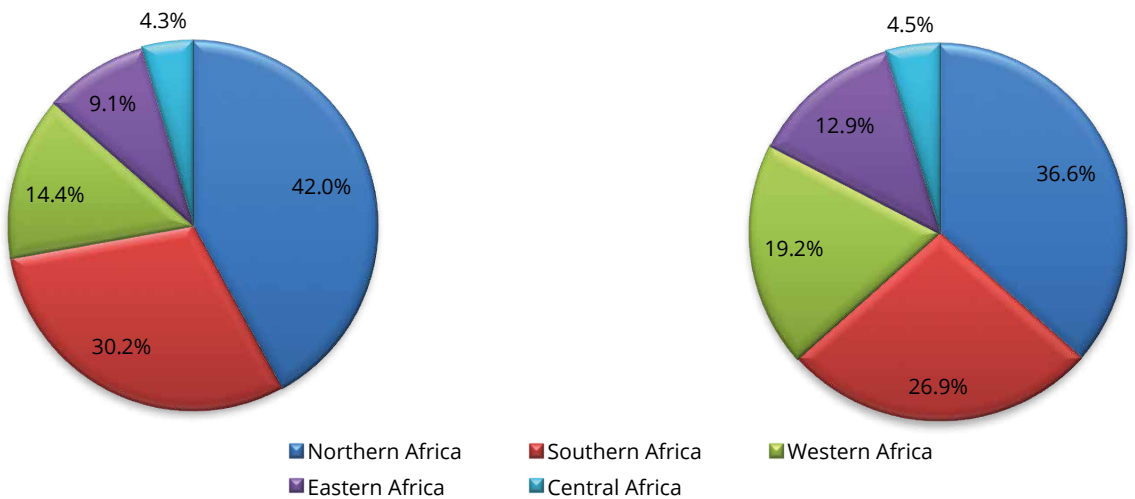
Nevertheless, the fact that Africa is growing rapidly is evident (Fig. 1.9). Fixing 2000 at 100 points as base years, by 2017 every African region registered a GDP between 277 points (Eastern Africa) and 171 points (Northern Africa).

Eastern Africa and Western Africa have shown to be the fastest growing regions, slowly recovering the economic gap with Northern and Southern Africa. This progress becomes evident, if we look at the change in GDP regional shares between 2000 and 2017 (Fig. 1.10). In 2017, Eastern Africa and Western Africa accounted for 12.9% and 19.2%, respectively, of the continent's GDP, an increase from 9.1% and 14.4% seventeen years before. Instead, Northern and Southern Africa have reduced their percentages, the former losing 5%, the latter 3%.

However, it is clear that huge internal divides exist in Africa, if we analyse the GDP per capita by region (Fig. 1.11). Northern and Southern Africa benefit from a GDP per capita that is three-fold or four-fold compared to the rest of the continent. In fact, in 2017, Northern Africa showed a GDP per capita, calculated with 2000 constant prices, equal to US$ 2,190, while Central Africa halted at US$ 391. Central Africa also suffered from the lowest GDP per capita growth rate between 2000 and 2017 (24.2%), while Eastern and Western Africa recorded values of 61.1% and 65.6%. The real GDP

Fig. 1.10 Share of African GDP, by region (2000, 2017)

Source: I-Com elaboration on AfDB data



growth rate has also followed the same trend. In 2000-2017, Eastern Africa and Western Africa had an annual GDP growth rate higher than 6%, while the African average stood at 4.75%.

A more general, but comprehensive picture of the general socio-economic condition of a country/region is given by the Human Development Index, drawn up by the UNDP. As shown in Fig. 1.12, Sub-Saharan Africa is lagging behind the rest of the world regions, with a gap that is closing at a very slow pace.

Furthermore, it is interesting to rank African states by economic wealth. Given the notable demographic differences between states, the per capita GDP will be analysed. Equatorial Guinea with US$ 32.8 thousand tops the ranking, followed by the Eastern Africa islands with the Seychelles and Mauritius registering US$ 27.8 thousand and US$ 21.4 thousand, respectively. They are closely followed by Gabon and then some larger countries, such as Botswana, Algeria, South Africa and Egypt. Between 2010 and 2017, all higher per capita GDP countries showed a positive Compound Average Growth Rate ranging from 2.1% (Tunisia) and 5.7% (the Seychelles), with the exception of Equatorial Guinea, that decreased its GDP per capita (CAGR= -3.8%).

Finally, it is interesting to investigate the productive sectors that have mainly contributed to GDP growth (Fig. 1.14). The service sector value added is the main GDP contributor. It accounts for percentages ranging from 46.76% of the GDP (Eastern Africa) to 60.36% (Southern Africa). The only exception is Central Africa, which

Fig. 1.11 GDP per capita, by region (US$, constant 2000 prices)

Source: I-Com elaboration on AfDB data

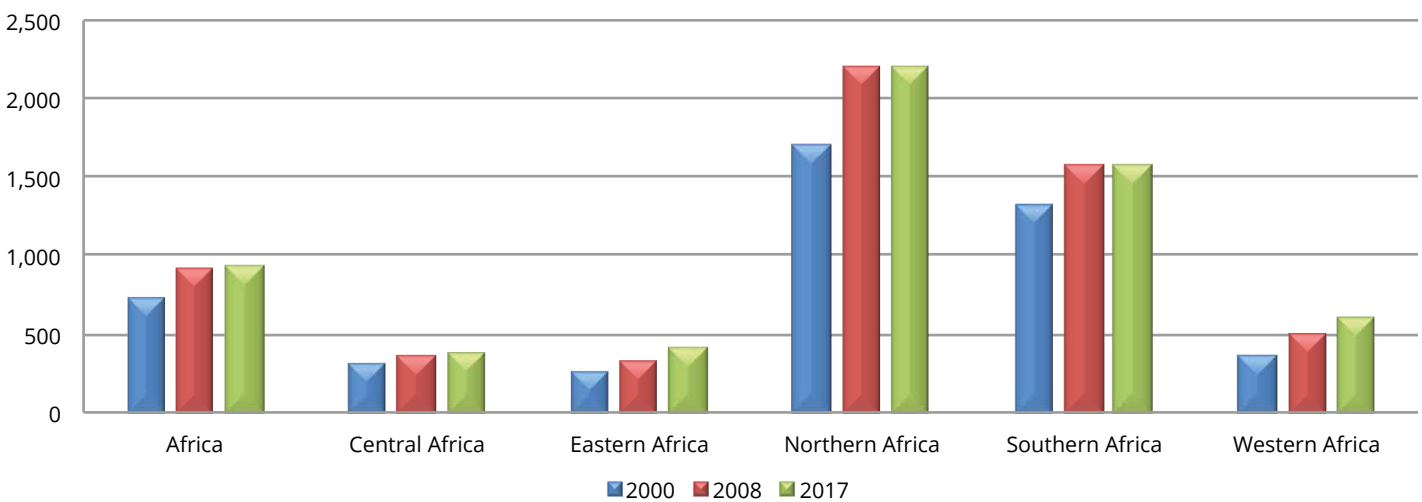


Fig. 1.12 HDI for selected world regions

Source: I-Com elaboration on UNDP data

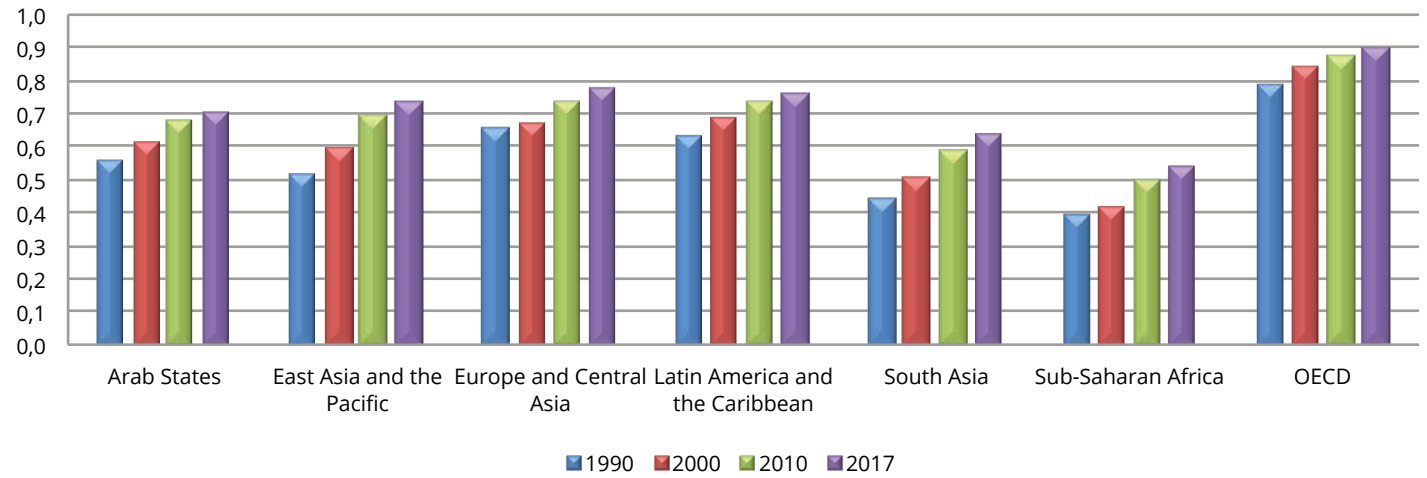
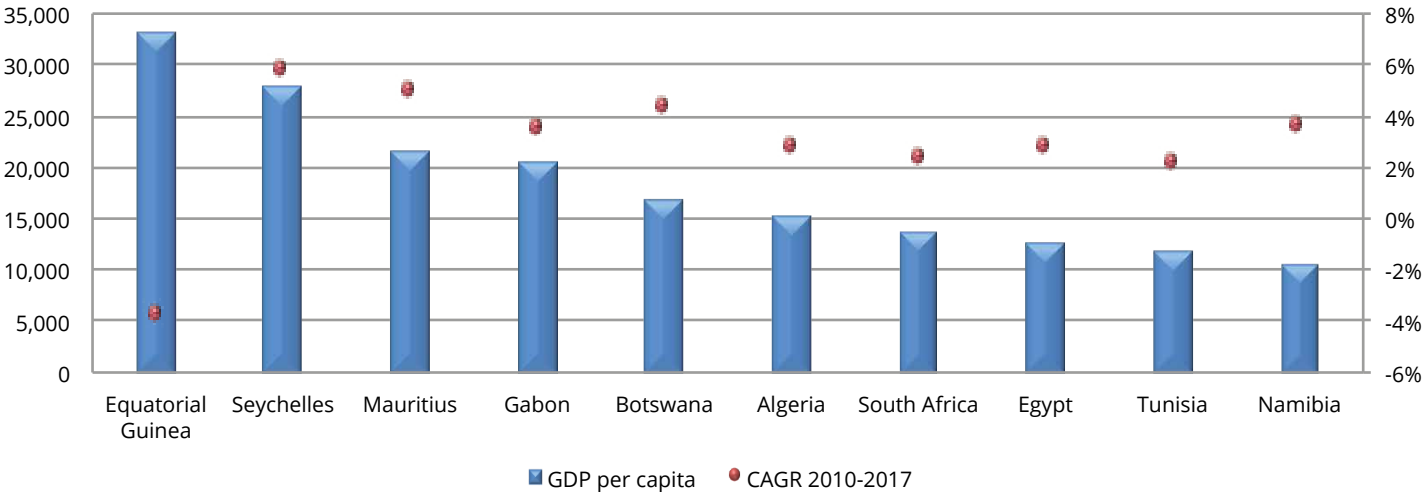


Fig. 1.13 Leading countries in Africa, GDP per capita (US$ current prices, 2017)

Source: I-Com elaboration on AfDB data

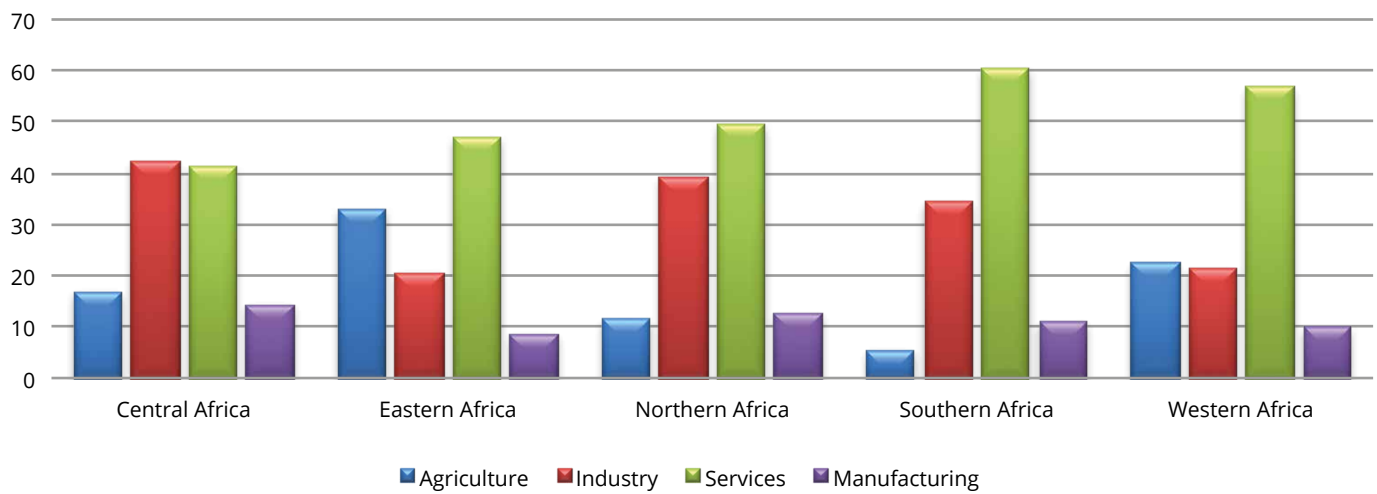


benefits from a higher contribution from industry value added, standing at 42.21% of GDP. On the contrary, agriculture value added varies from 5.37% (Southern Africa) to 32.77% (Eastern Africa). If we focus on the contribution from the manufacturing sector value added, it can be noted that it is around 10% of GDP, with a peak in Central Africa (14.2%).

In order to evaluate the competitiveness of the African countries in the global scenario, the Global Competitiveness Index, that is drawn up every year by the World Economic Forum, will be used. It is a synthetic index of 98 indicators organized into 12 pillars, which reflect the complexity of the drivers of competitiveness and social and economic growth. They are: Institutions, Infrastructure, ICT Adoption, Macroeconomic Stability, Health, Skills, Product Market, Labour Market, Financial System, Market Size, Business Dynamism and Innovation Capability. However, African results are not so exciting. 17 out of the 38 African economies studied are among the global bottom 20 and the continent median is as low as 46.3, less than halfway behind the frontrunners. Mauritius is Africa's best performer. It has a score of 63.7 and is in 49th position out of 140 countries. South Africa follows (60.8, 67th) and then the Seychelles (58.5, 74th), Morocco (58.5, 75th) and Tunisia (55.6, 87th). If we look at the Global Competitiveness Index in 2010, Africa's best performer was Tunisia, which ranked 32nd globally. ICT Adoption, Health, Market Size and Innovation Capability

Fig. 1.14 Agriculture, manufacturing, industry and services value added, by region (% of GDP*, 2017)

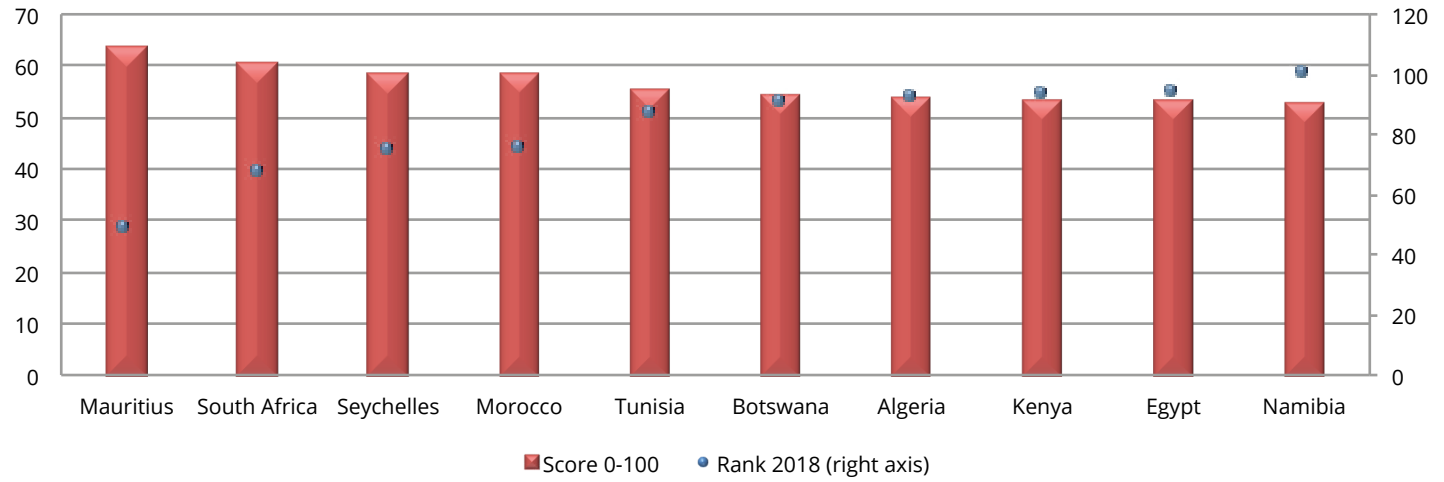
Source: I-Com elaboration on AfDB data



** The total exceeds 100 since manufacturing is part of industry*

Fig. 1.15 Leading countries in Africa, Global Competitiveness Index score (2018)

Source: I-Com elaboration on World Economic Forum data



are often the pillars for which African country scores come out the lowest. On the contrary, on average, Macroeconomic Stability, Labour Market and Financial System are the those that perform better.

1.2. AFRICAN ROLE IN THE GLOBAL ECONOMY AND EU-AFRICAN ECONOMIC AND TRADE RELATIONS

In order to examine more closely the role of Africa in the global economy, as a first step, we can monitor the trend in exports and imports. According to African Development Bank data, in 2017, Africa exported goods and services for more than US$ 490 billion, while, in 2000, it had been US$ 190 billion. Therefore, between 2000 and 2017, African exports increased by 160%, showing an average value of US$ 447 billion. The maximum value was recorded in 2011, when exports amounted to US$ 690 billion.

Instead, in 2017, Africa imported goods and services for almost US$ 630 billion, while, in 2000, imports had amounted to US$ 170 billion. Therefore, in this period African imports of goods and services increased by almost 280%, presenting an average value of US$ 480 billion. In general, exports of goods and services exceeded imports until 2008. Then a turnaround occurred with imports registering a higher value than exports. Similarly, the current account balance shows a surplus until 2008, with a peak of 6.5% of GDP in 2006, and deficits between

2008 and 2017, with a negative record of -6.7% in 2015 (Fig. 1.16). On average, the current account balance was in deficit between 2000 and 2017.

Focusing on goods, we can see that Africa exported goods for almost US$ 390 billion in 2017, 79% of the total exports. In 2000, it amounted to US$ 156 billion, 83% of exports. Therefore, the export of services grew slightly more compared to the export of goods. Nevertheless, the export of goods increased by 148% between 2000 and 2017, with a peak of US$ 530 billion in 2011. The import of goods amounted to US$ 482 billion in 2017, representing 77% of total African imports. The import of goods increased by 275% from 2000, therefore following the growth of total imports, when they had a value of US$ 130 billion. The trade balance resulted in a surplus until 2011, with a peak of 7.1% of GDP in 2005. It then later turned into deficit, showing a negative record of -5.7% in 2015. One of the factors that has most impacted the decline in African exports since 2008 is clearly the decline in demand from developed countries due to

Fig. 1.16 Imports and exports of goods and services and current account balance (cur. US $, %GDP)

Source: I-Com elaboration on AfDB data

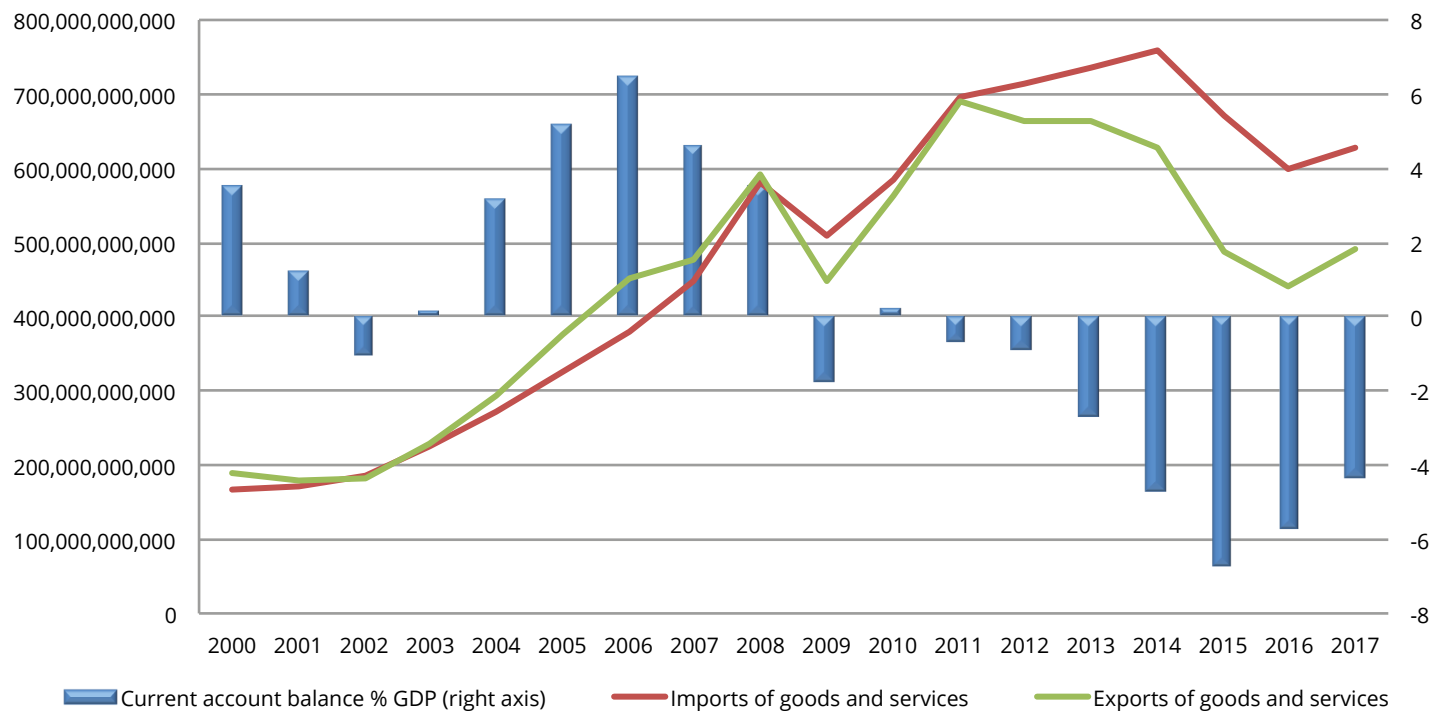
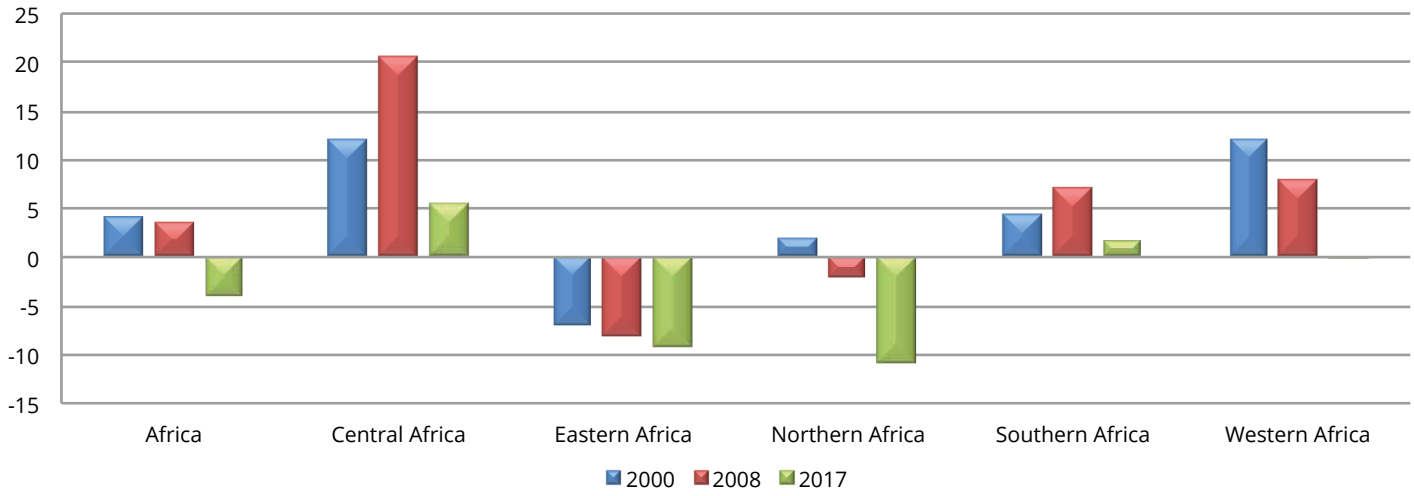


Fig. 1.17 Trade balance, by region (as % of GDP)

Source: I-Com elaboration on AfDB data



the international economic crisis. The decline in African exports lasted until 2015, however, from 2016 signs of recovery have been emerging.

The trade balance varies from region to region (Fig. 1.17). Traditionally, Eastern Africa has a substantial deficit with foreign countries (-9.3% of GDP in 2017). Since 2008, Northern Africa has also shown a trade balance deficit (-11% of GDP in 2017). Instead, especially Central Africa has exhibited a significant trade balance surplus (20.7% in 2008 and 5.7% in 2017).

If we consider the top countries in exporting goods and services, we can find that South Africa is by far the main exporter in Africa. In 2017, it exported goods and services for US$ 96 billion, accounting for almost 20% of total African exports in same year (Fig. 1.18). South Africa is followed by Nigeria (US$ 46 billion) and three countries of Northern Africa – Egypt (US$ 40 billion), Algeria (US$ 38 billion) and Morocco (US$ 37 billion). The top ten countries represent 72% of African exports. However, all the leading countries in the export of goods and services show a trade balance deficit between -9.8% of GDP (Algeria) and -1.9% of GDP (Ivory Coast). In this area, Nigeria is the only exception with a trade balance surplus of 2% of GDP.

Nevertheless, if we compare the export of goods and services with the GDP, the ranking among African countries changes completely. The important performance of many small countries emerges. In fact, at the top of the ranking we can find the Seychelles with exports amounting to 87% of GDP (Fig. 1.19). South

Fig. 1.18 Leading countries in Africa for exports of goods and services (cur. US$)

Source: I-Com elaboration on AfDB data

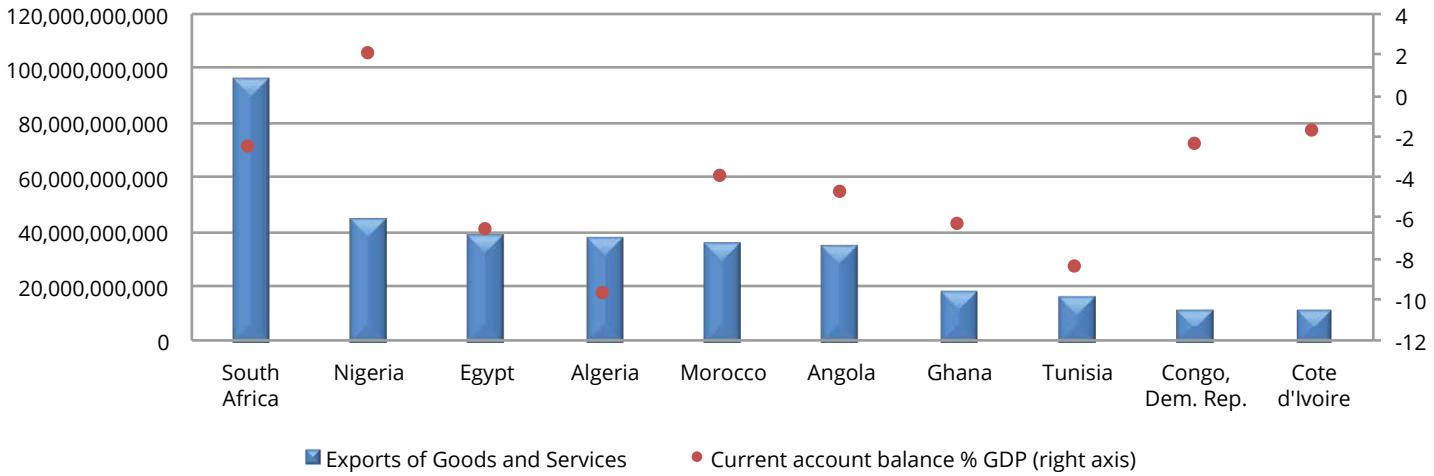
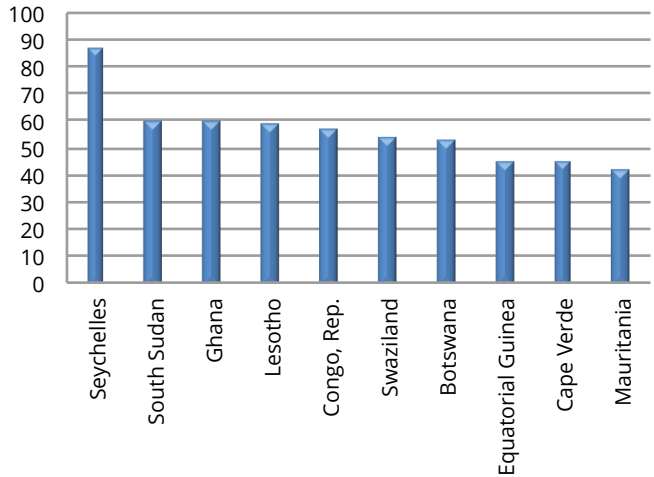


Fig. 1.19 Leading countries in Africa for exports of goods and services (as % of GDP)

Source: I-Com elaboration on AfDB data



Sudan, Ghana and Lesotho follow, with 61%, 60% and 59% of GDP, respectively.

According to UNCTAD data, in 2017, Africa exported products for about US$ 410 billion. US$ 310 billion are from the export of primary commodities, precious stones and non-monetary gold, while about US$ 100 billion come from the export of manufactured goods. Therefore, the export of commodities makes up for around 75% of the exports of products (for the importance of commodities in African economy and trade see par. 3.1), while manufactured goods represent the remaining 25%. A considerable part of the export of manufactured goods involves machinery and transport equipment, accounting for 39%. 33% is represented by other machinery, such as telecommunications and recording and reproducing

equipment and office machines. Furthermore, chemical products hold 22% in the export of manufactured goods, while textile fibres and clothing stand at 17%. Southern Africa is the best performer for machinery and transport equipment exports, while Northern Africa holds the main share for chemical and textile products. Instead, Africa lags behind in trading ICT products, accounting for 1.3% of exports and 5.2% of imports, while the global average is 12.2% for exports and 13.4% for imports.

Concerning EU-Africa trade relations, it should be highlighted that, in 2016, Africa was the 4th most important EU trading partner after the United States, China and Switzerland. In fact, Africa as a whole accounted for 7.5% of total extra-EU trade in goods. In addition, it was the 4th largest EU partner for imports in 2016, accounting for 6.7% of all EU imports, and it was the 3rd main EU partner for exports (8.2% of all EU exports). According to Eurostat news, after a marked decrease in 2009 following the economic crisis, the value of EU imports of goods from Africa recovered until 2012 to hit a high of € 185.8 billion, however, then falling to € 115.1 billion in 2016. Exports recovered after 2009 to reach over € 150 billion from 2012 to 2015, slightly decreasing in 2016 to € 142.8 billion.

Six African countries made up around 70% of total EU trade in goods with Africa in 2016. South Africa was the EU's leading partner, accounting for 17% (€ 44.9 billion) of total EU trade in goods with Africa. Algeria (€ 36.7 billion, 14%) and Morocco (€ 34.4 billion, 13%) followed, then Egypt (€ 25.9 billion, 10%), Tunisia and Nigeria (both € 19.8 billion, 8% each). The largest markets for EU exports to Africa in 2016 were South Africa, that accounted for 16% of total export value from Africa, Morocco (15%), Egypt and Algeria (14% each). EU exports to Africa mainly consisted of processed products, especially road vehicles. This product group made up for more than a third of the total value of EU exports to Africa at € 54.5 billion, followed by chemicals (€ 20 billion). In 2016, the EU trade balance with Africa registered a surplus of € 27.7 billion. However, from 2007 to 2014, the EU showed a consistent deficit on its trade in goods with Africa. Despite the decline in African imports since 2012, this is due to Africa's role as a main supplier of mineral-fuel imports to the EU. Eurostat points out that total energy product imports (mainly crude oil) from Africa amounted to € 41.6 billion in 2016, making up for around 35 % of total EU imports from Africa in the same year. Nevertheless, this is a significant drop compared to 2015 when the EU imported energy products from Africa for € 61.6 billion, 47 % of total EU imports. Across the African countries, the highest EU surpluses are registered with Egypt (€ 12.6 billion) and Morocco (€ 7.1 billion). Instead, the highest EU deficits are with The Ivory Coast, Nigeria and Botswana (all about - € 2 billion). Furthermore, among the EU Member States, France was the leading partner for Africa. It had a total trade amounting to € 44.1 billion in 2016 (17% of total EU trade with Africa), followed by Germany (€ 38.4 billion, 15%), Spain (€ 37.3 billion, 14%) and Italy (€ 34 billion, 13%).

Moreover, the EU is Africa's most important trading partner. In 2015, Africa's trade volumes with Europe amounted to US$ 341 billion, while Africa's trade with

China and US was at US$ 188 billion and US$ 53 billion[2], respectively. If we consider only Sub-Saharan Africa, we can point out that, in 2006-2016, EU made up for around 25.5% of African imports and 23.2% of Sub-Saharan African exports (Tab.1.1). However, many emerging economies grew significantly during this period with India, Indonesia, Russia, China and Turkey more than doubling their trade with the Sub-Saharan African countries. It is worth noting China's performance, where Sub-Saharan African imports from China increased by 233% and exports by 53%. Therefore, China accounted for 12.3% of total imports and 12.9% of total exports, overtaking the USA as the second Sub-Saharan African trading partner.

In order to assess the degree of integration of the African economic system in international flows and global competitiveness, Foreign Direct Investment (FDI) trends need to be monitored. FDIs are an essential index of economic attractiveness. In 2016, FDI inflows in Africa amounted to US$ 59 billion (Fig. 1.20) while in 2000 they stood at US$ 11 billion. Therefore, in this period FDI inflows increased significantly. On average, between 2000 and 2016, Africa received FDI for more than US$ 40 billion, corresponding to US$ 40 per capita. In fact, FDI inflows per capita amounted to US$ 49 in 2016, while they were US$ 13.5 in 2000. Therefore, FDI per capita almost quadrupled in 2000-2016. As for exports, FDI inflows have also declined since 2008 due to the economic crisis

Tab 1.1 Sub-Saharan Africa's international trade (2017)

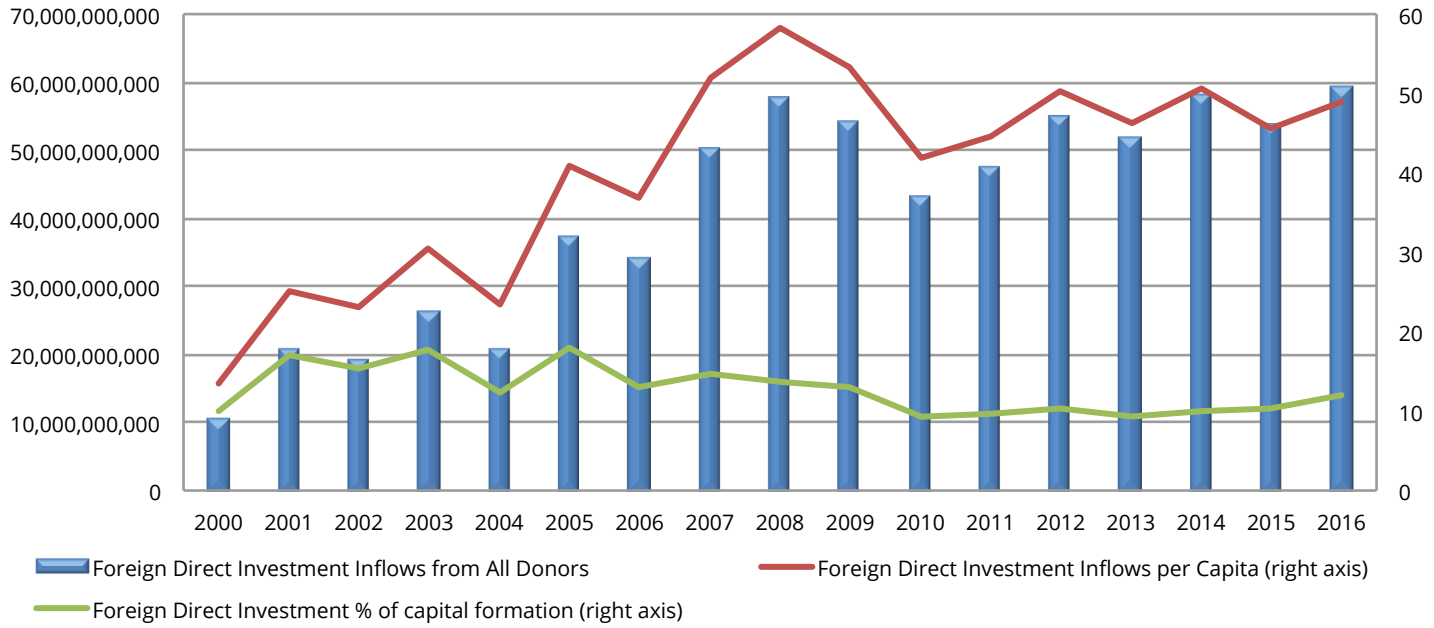
Source: IMF

Countries	Change in imports (2006-2016)	Total value of imports (US$ millions)	Share of total imports (%)	Change in exports (2006-2016)	Total value of exports (US$ millions)	Share of total exports(%)
Brazil	12%	51,849	1.5	-66%	95,516	2.7
India	181%	156,632	4.6	186%	310,787	8.7
Indonesia	107%	30,825	0.9	147%	32,847	0.9
Russia	142%	19,675	0.6	168%	5,241	0.1
Turkey	192%	26,139	0.8	61%	10,023	0.3
China	233%	435,737	12.7	53%	459,206	12.9
European Union	22%	874,981	25.5	-5%	827,417	23.2
United States	7%	219,091	6.4	-66%	482,189	13.5
World	56%	3,432,539	100	18%	3,573,221	100

2 BBC news: https://www.bbc.com/news/world-africa-45496655

Fig. 1.20 Africa Foreign Direct Investment Inflows (US$)

Source: I-Com elaboration on AfDB data



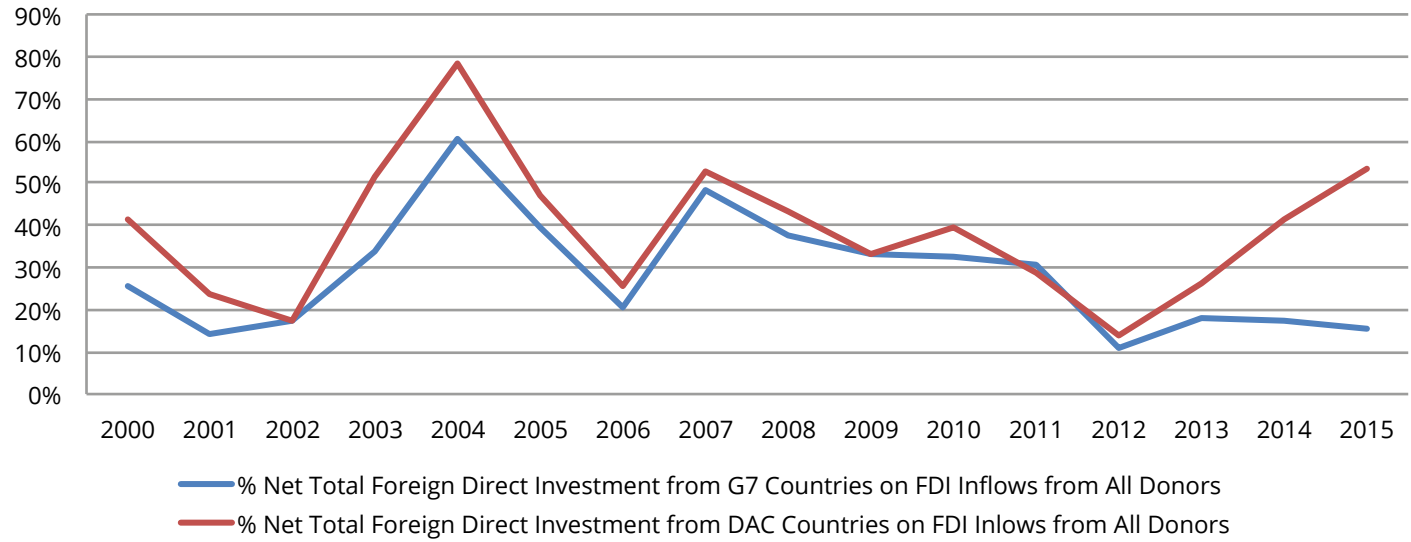
that has affected the developed countries. However, since 2010 they began to significantly increase once again. Instead, FDI contribution to capital formation remained quite stable and, on average, is equal to 12.7% in the considered period.

Which countries invest more in Africa? If we focus on FDI inflows from the G7 and DAC[3] countries, we can see that since 2013 the G7 countries have been reducing their share in FDI inflows compared to the DAC ones (Fig.1. 20). In fact, in 2013-2015, G7 share lost 2.6 p.p., while the DAC countries increased their share by 27 p.p. Considering that the G7 countries are also DAC members, it follows that G7 investments are losing shares compared to other DAC country investments. On the contrary, in 2000-2013, DAC and G7 inflows followed more or less the same trend. In 2015, the G7 countries made up for around 15% of FDI inflows, while the DAC countries held 53.5%.

3 DAC stands for Development Assistance Committee and it consists of 30 member countries. The list of members is available here: http://www.oecd.org/dac/dacmembers.htm

Fig. 1.21 Net Total Foreign Direct Investment, by G7 and DAC countries (% of total FDI inflows)

Source: I-Com elaboration on AfDB data



FDI inflows vary considerably among African regions. Southern Africa is the best performer in attracting FDI, accounting for US$ 22 billion FDI in 2016, 37% of total FDI inflows for the same years. Northern Africa and Western Africa, with US$ 14 billion and US$ 11 billion, respectively, followed. If we look at FDI inflows per capita, Southern Africa is again at the top with US$ 114 per capita, followed by Northern Africa (US$ 71).

In the end, it is possible to rank countries by FDI per capita in Africa (Fig. 1.23). The Seychelles was by far the leading country, with US$ 1,600 per capita FDI in 2016. Three countries from Central Africa follow – Angola, the Congo and Gabon in 2nd, 3rd and 4th positions with US$ 556, US$ 423 and US$ 398, respectively.

Fig. 1.22 Foreign Direct Investment Inflows, by region (US$, 2016)

Source: I-Com elaboration on AfDB data

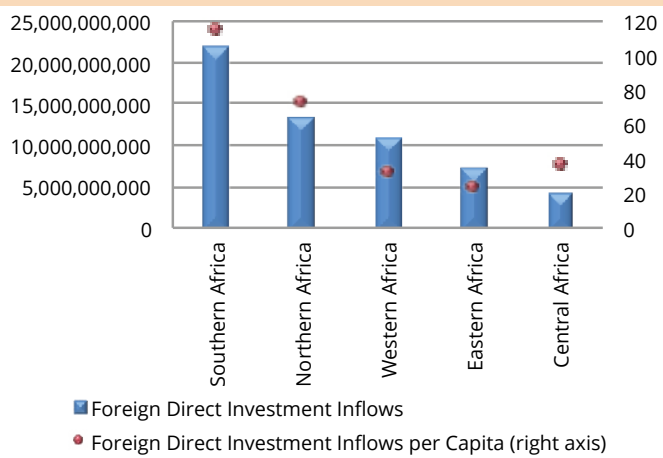
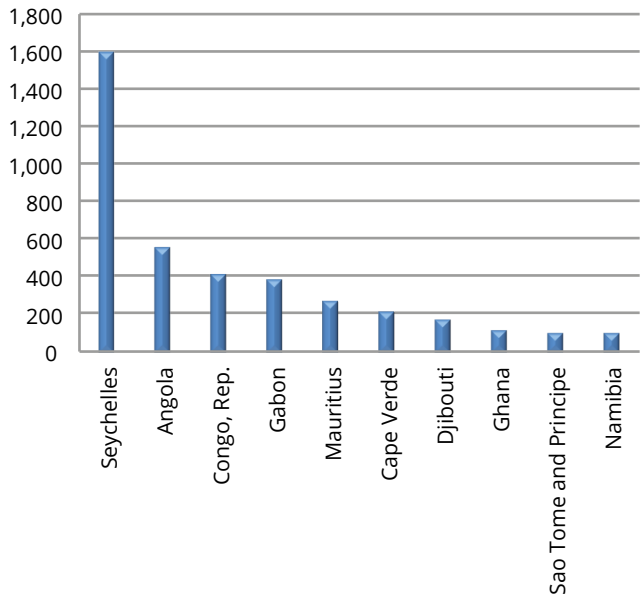


Fig. 1.23 Leading countries in Africa, Foreign Direct Investment Inflows per capita (US$, 2016)

Source: I-Com elaboration on AfDB data



1.3. THE ROLE OF PHYSICAL AND DIGITAL INFRASTRUCTURES TO CONNECT AFRICA

Infrastructures are unanimously recognised as a fundamental factor for industrialization and economic and social development. It affects both productivity and the quality of life. Africa faces a historical delay in infrastructural development not allowing it to fully exploit its economic growth potential. Still today, it suffers from insufficient stock and the scarcity of infrastructures. Reasons for this infrastructural gap in Africa are numerous, including a substantial lack in funding. The African Development Bank estimates Africa's infrastructure needs to be in the range of US$ 130–170 billion a year, with a financing gap from US$ 68 to US$108 billion[4]. Therefore, in order to fill this gap, Africa needs to mobilise new investments. In principle, they would result in being very profitable taking into

Tab 1.2 Preliminary figures on investment needs ($ billions)

Source: IMF

Infrastructure subsector	Target by 2025	Annual cost
Power	100% urban electrification, 95% rural electrification	35-50
Water supply and sanitation	100% access in rural and urban area	56-66
Information and communication technology	Mobile universal coverage: 50% population within 25km of a fibre backbone. Fibre to home/premises internet penetration rate: 10%	4-7
Road and other transport sectors (air, rail, and port)	80% preservation; 20% development	35-47
Total		**130-170**

4 African Development Bank, African Economic Outlook, 2018

account the higher achievable economic benefits compared to other regions in the world. Investment needs concern all the infrastructure subsectors such as power, water supply and sanitation, ICT and roads and transport (Tab.1.2).

The gap between the existing and the necessary infrastructure stock is evident if we compare the data on African infrastructural access with those of other global regions (Tab. 1.3). We can see that Africa has less than 30% of electricity production per capita compared to Asia and Latin America and half of the electricity access rate calculated as a percentage of the population. The same situation is shown for improved sanitation, while appears better for improved water. If we consider ICT technology, AfDB says that only one person per 100 has a fixed broadband subscription (6 in Asia, 9 in Latin America, 15 in Europe) and 73 mobile cellular subscriptions per 100 population (89 in Asia, 115 in Latin America, 119 in Europe). Looking at the transport sector, only 2 km of roads per 100 km^2 are paved, compared to 3 km in Latin America and 25 km in Asia. Furthermore, there are 46.3 thousand railway lines in Africa compared to 85.9 in Europe, 89 in Latin America and 197.6 in Asia.

The inadequacy of the infrastructure heavily impacts on the productive system performance. The World Bank (WB) estimated that in 2014 African firms faced delays of

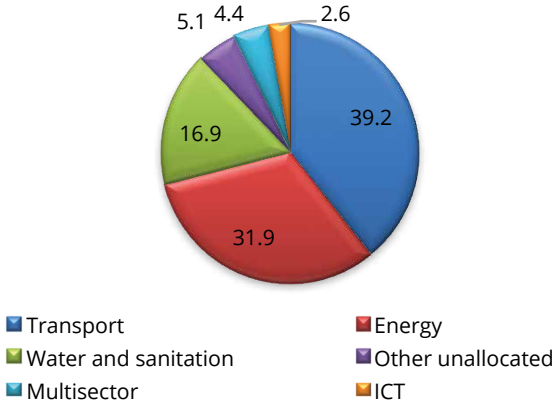
Tab 1.3 Infrastructure access data for selected global regions

Source: IMF

Indicator	Africa	Asia	Europe	Latin America
Power				
Electricity production per capita (kWh)	572	1,93	3,355	2,116
Electricity access (% of total population)	46	88	100	97
Water supply and sanitation				
Improved water (% of total population)	69	90	99	94
Improved sanitation (% of total population)	39	61	93	82
Information and communication technology				
Fixed broadband subscriptions per 100 population	1	6	15	9
Mobile cellular subscriptions per 100 population	73	85	119	115
Transport				
Paved road density (km of paved road per 100 km2 of land area)	2	25	122	3
Railway lines (km)	46,38	197,61	85,986	89,002

Fig. 1.24 Infrastructure disbursements, by sector (%, 2016)

Source: I-Com elaboration on AfDB data

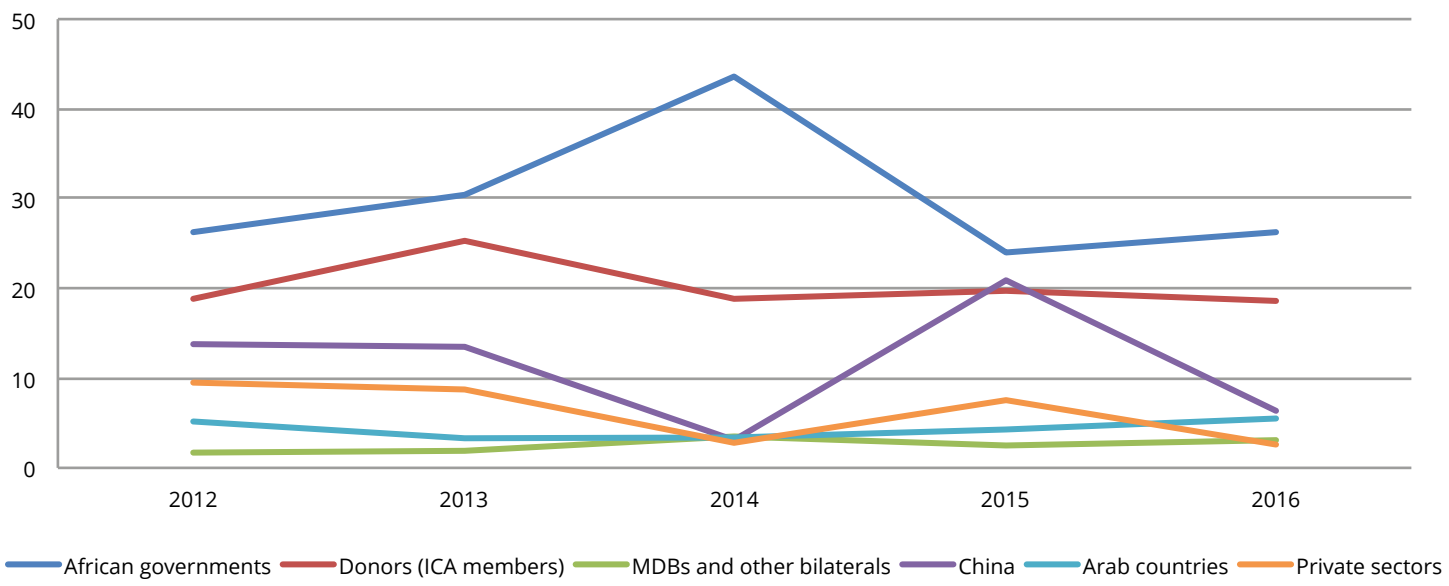


79.9 days in obtaining electricity connections (compared to 27.5 days in developing countries) and 90.9 days per year of electrical outages, more than a quarter of the year (compared to 28.7 in developing countries). Regarding ICT, the WB estimated delays of 96.6 days per year in obtaining telephone lines (43 in developing countries) and 28.1 days per year for telephone outages (9.1 in developing countries).

In 2016, Africa spent US$ 62.5 billion on infrastructures, transport being the main recipient. In 2016, it made up for around 39% of infrastructure spending (Fig. 1.24), followed by energy (31.9%) and water and sanitation (16.9%), with ICT accounting for only 2.6%.

Fig. 1.25 Trends in infrastructure finance in Africa, by source ($ billion)

Source: I-Com elaboration on ICA data

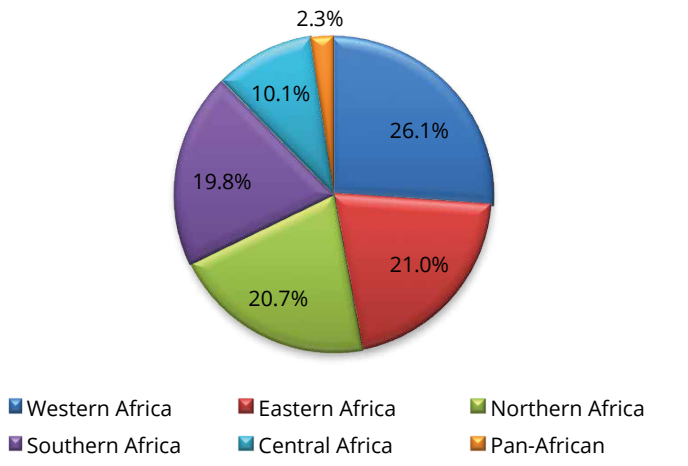


On average, between 2012 and 2016, infrastructure financing in Africa amounted to US$ 75 billion. It hit a high in 2013 at US$ 83.3 billion, and then continuously declined reaching US$ 62.5 in 2016. On an annual average, the Africa governments made up for around 40% of total disbursement, with a record of US$ 43.6 billion in 2014 (Fig. 1.25). ICA donors[5] accounted for 27% of the funding in 2012-2016 and China alone contributed for more than 15% of infrastructure financing, hitting a high of US$ 20.9 billion in 2015. The private sector accounted for US$ 6.2 billion on an annual average, more than Arab countries (US$ 4.4 billion) and MDBs and other bilateral agencies (US$ 2.5 billion).

In 2016, Western Africa was the main recipient of infrastructure disbursements, accounting for 26.1% of the US$ 62.5 billion (Fig. 1.26). It was followed by Eastern Africa (21%) and Northern Africa (20.7%). Southern Africa held 19.8%, with South Africa alone making up for 10.4%. Central Africa followed with 10.1%.

Fig. 1.26 Infrastructure disbursements in Africa, by region (2016)

Source: I-Com elaboration on AfDB data



Despite the scarcity of funding, African countries have been improving their internal and global connectivity. African airports move tens of thousands of domestic and international passengers every year. The main airports are South Africa's "O. R. Tambo International Airport" with over 21 million passengers in 2017. It is followed by Egypt's "Cairo International Airport" (11 million passengers), South Africa's "Cape Town International Airport" (10.6 million passengers), Morocco's "Mohammed V International Airport" (9.3 million passengers) and Kenya's "Jomo Kenyatta International Airport" (7 million passengers). This improved connectivity has met the tourist inflows. In 2017, Africa registered the arrival of 62 million tourists, making up for around 5% of international tourism, compared to the 2000 figure of 31 million, doubling in seventeen years. Northern Africa hosted about 25 million tourist arrivals, followed by Southern Africa (22 million). These two regions accounted for 75% of total arrivals. If we consider overnight stays among the African countries in 2016, Morocco is the best performer with 133 million, followed by Egypt (97 million) and South Africa (60,5 million).At the lower end, we find Tunisia and Ghana registering 20.7 and 19.7 million overnights.

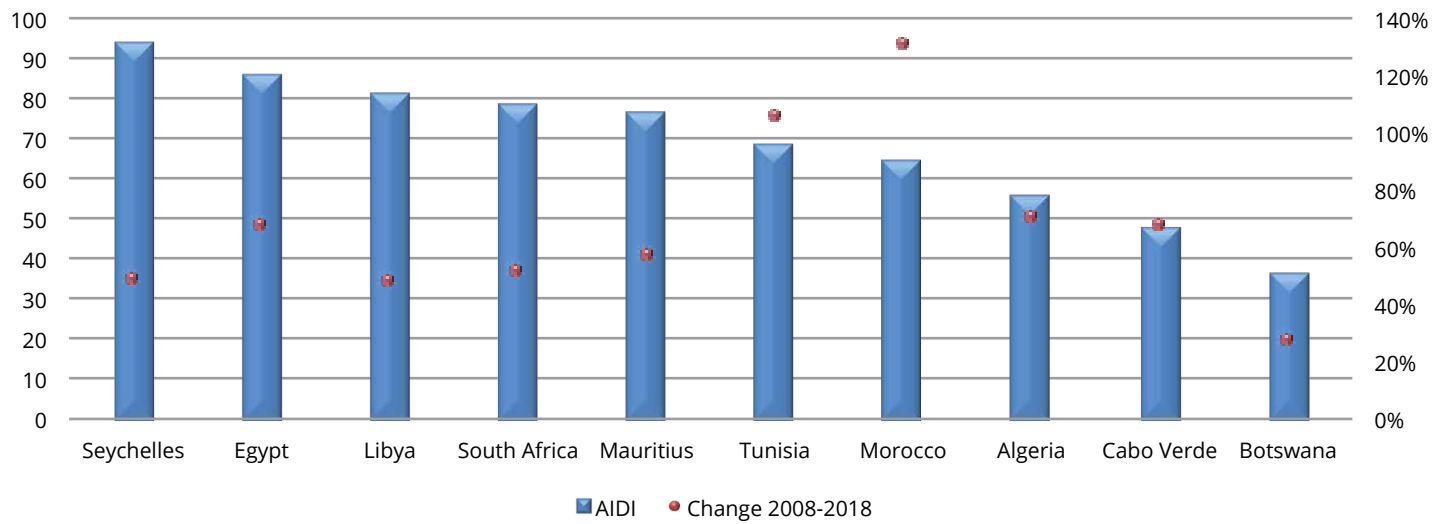
In recent years, sea connectivity has greatly improved. The UNCTAD liner ship connectivity index, calculated the African average, registering 20 in 2018 compared to 9.57 in 2004. In 2018, the leading African countries for the

5 Infrastructure Consortium for Africa's donors are G8 countries and South Africa

liner ship connectivity index were Sri Lanka with 72.46, followed by Morocco (71.5) and Egypt (70.28). At the lower end, we find South Africa (40.11) and Djibouti (37.03). Even seaborne trade has consistently increased over the last decades. In 2017, Africa registered 500 million metric tons of goods unloaded, compared to 350 in 2006 (+43% in eleven years). Of the goods unloaded, dry cargo holds the main share (75%), followed by petroleum products and gas (18%) and crude oil (7%). Furthermore, in 2017, Africa registered 726 million metric tons of goods loaded compared to 721 in 2006. The main share of goods unloaded consists of dry cargo (52%), followed by crude oil (49%). In general, in 2017, Africa as whole held a share of 4.6% of goods unloaded in seaborne trade and 6.8% in goods loaded. In world seaborne trade, the main share is held by Asia, making up for around 60.6% of goods unloaded in the world and 41.6% of goods loaded. Asia is followed by Europe, with 19.8% for goods unloaded and 16.7% for goods loaded. Furthermore, America registers 13.4% for goods unloaded and 21.5% for goods loaded. In 2006-2017, world seaborne trade showed growth rates of 35.4% for goods unloaded and 39% for goods loaded. Africa overtook the global average for goods unloaded with a growth rate of 42.9%, while goods loaded volumes increased only by 0.6%. Instead, Asia exhibited +37.4% for goods loaded and +71.5% for goods unloaded in the time period considered. Both America and Europe decreased their volumes of goods

Fig. 1.27 Leading countries, Africa Infrastructure Development Index (2018)

Source: AfDB



unloaded, by -6.1% and -0.9%, respectively. However, they increased their quantities of goods loaded by 46.1% and 18.1%. Container port throughput increased by 31% between 2010 and 2017 with 2017 accounting for 30 million TEU. Leading countries are Egypt (7.4 million), followed by South Africa and Morocco (approximately 4.6 million each).

Finally, in order to verify the status and the progress of the African infrastructure system, the results from the Africa Development Infrastructure Index (AIDI), calculated by AfdB, can be referred to. The AIDI consists of four main components: transport, electricity, ICT and water and sanitation. These pillars are disaggregated into nine indicators which show a direct or indirect impact on productivity and economic growth. Moreover, the index is normalized to lie between 0 and 100. In 2018, it is clear there existed a wide variation among African countries in their infrastructure stock. In fact, there is a range of more than 90% between the top-performing country and the worst-performing one. The countries in the top levels of the ranking are mainly from North Africa and a few from Southern Africa with the rest of Africa registering low performance. In 2018, the Seychelles was the best performer with a score of 94.3, followed by Egypt (85.8) and Libya (81.4). South Africa (78.5) and Mauritius (76.8) complete the top five. At the bottom of the ranking, we find Eritrea (8.2), Chad (7.2), South Sudan (4.6), Niger (5.5) and Somalia (3.4).

PART 2

POLICIES AND TOOLS FOR SUPPORTING AFRICA AND FOSTERING EU-AFRICA RELATIONS

2. POLICIES AND TOOLS FOR SUPPORTING AFRICA AND FOSTERING EU-AFRICA RELATIONS

This chapter will provide an overview of the main European policies and tools to support the sustainable development of Africa and also foster EU-Africa relations. Clearly, the vast set of tools which the EU is deploying to help its partner countries in the developing world, should be seen in the context of the global efforts to contribute to a more sustainable future. Therefore, this chapter's starting point is an overview of the UN's Sustainable Development Goals (SDGs) and how these goals have shaped tools such as the European "External Investment Plan" (EIP). Then, the second part of the chapter will focus on the actual EIP. As well as the specific features of the Plan, attention will be given to its three pillars, its objectives and the future trajectory of EIP and, more in general, of European external actions. This section will also include a short description of the new 'Africa – Europe Alliance for Sustainable Investment and Jobs'. The third part of the chapter will cover the Cotonou Agreement with ACP countries focusing on the features of the plan and some of the most debated aspects in the current negotiations on the post-2020 ACP-EU agreement. The last section will provide the reader with an overview of the main development and cooperation tools of three EU Member States (France, Germany, UK), and of the World Bank Group and the African Development Bank, before briefly discussing China's rise as a key investor in Africa.

2.1. THE SUSTAINABLE DEVELOPMENT GOALS

The year 2015 marked a paradigm shift as regards the sustainability revolution, which culminated in the adoption of the epoch-making "2030 Agenda" (UN, 2015) on 25 September. The 2030 Agenda included 17 Sustainable Development Goals (SDGs) for the period 2015-2030. The 17 SDGs are:

1. *End poverty in all its forms everywhere*
2. *End hunger, achieve food security and improved nutrition and promote sustainable agriculture*
3. *Ensure healthy lives and promote wellbeing for all at all ages*
4. *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*
5. *Achieve gender equality and empower all women and girls*
6. *Ensure availability and sustainable management of water and sanitation for all*
7. *Ensure access to affordable, reliable, sustainable and modern energy for all*
8. *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all*
9. *Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation*
10. *Reduce inequality within and among countries*
11. *Make cities and human settlements inclusive, safe, resilient and sustainable*
12. *Ensure sustainable consumption and production patterns*

13. *Take urgent action to combat climate change and its impacts (noting agreements made by the UNFCCC forum)*
14. *Conserve and sustainably use the oceans, seas and marine resources for sustainable development*
15. *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss*
16. *Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels*
17. *Strengthen the means of implementation and revitalize the global partnership for sustainable development*

The Sustainable Development Goals framework was built on the basis of the experience matured by the UN and by its member states with the Millennium Development Goals (MDGs), which covered the period 2000-2015. Yet, the former set of goals differs from the latter for at least four reasons. First of all, while the Millennium Development Goals focused essentially on the developing world, the SDGs were designed bypassing that "developing vs developed" dichotomy characterizing the MDGs, which has been one of the aspects of the MDGs targeted by critiques[6]. Hence, the SDGs where written thinking globally, rather than regionally. And indeed, as Jeffrey D. Sachs correctly put it in 2012, when the SDGs were still in their design stage, the very idea of SDGs "quickly gained ground because of the growing urgency of sustainable development for the entire world" (2012, Pp. 2206).

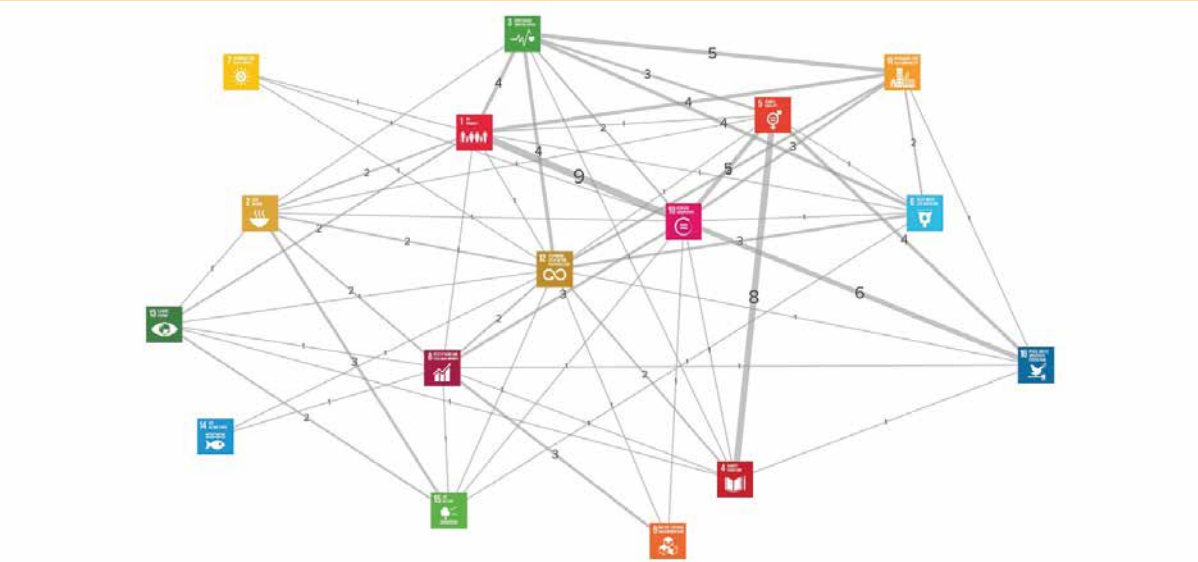
Secondly, the design of the 2030 Agenda was also an excellent model of participatory decision-making. In comparison to the MDGs, developing countries were able to shape the 2030 Agenda more effectively. Participation in the shaping of the goals was not only more inclusive at intergovernmental level, but was also characterized by the involvement of the Civil Society Organizations, academia and private companies. The text of the 2030 Agenda reads, "the Goals and targets are the result of over two years of intensive public consultation and engagement with civil society and other stakeholders around the world" (UN, 2015. Pp. 3). Thirdly, differently from the MDGs, interconnectedness is an important characteristic of the 17 SDGs. Achieving one of the goals could have beneficial effects on the efforts made to achieve others. Yet, the opposite is also true. For instance, failing to prioritize and to dedicate sufficient resources to achieve SDG 8 "*Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all",* might hinder the prospects for achieving SDGs 1 and 2, namely "*No Poverty*" and "*No Hunger*". Figure 1 shows a graphical representation of interconnectedness among the 17 SDGs.

Lastly, but most importantly for the purposes of this chapter and this paper, the 2030 Agenda

6 See for Instance: Fehling, Nelson & Venkatapuram (2013) "Limitations of the Millennium Development Goals: a literature review". *Glob Public Health* 8(10). Pp.1109–1122.

Fig. 2.1 Interconnectedness among the SDGs

Source: Mohr (2016). The numbers on the line indicate the number of targets linking different SDGs.



requires a strong cooperation between Civil Society Organizations (CSOs), academia and, importantly, the private sector, to achieve sustainable development. The fundamental role of private companies in helping to achieve sustainable development was emphasized in the 2015 Addis Ababa Action Agenda (AAAA) on financing for development, which provided an overview of the steps the International Community promised to take to achieve the objectives of the 2030 Agenda and implement the SDGs. The final text adopted encouraged businesses to "apply their creativity and innovation to solving sustainable development challenges" (UN, 2015b, Pp.17), to engage in development and to mobilize resources. It was clear that in order to concretize the UN goals for a more sustainable future, nations could not be the only actor involved. In view of the ambitiousness of the 2030 Agenda and the consequent necessity to mobilize resources, the private sectors had to play their part. This is the reason why, on 26 September 2015, one day after the adoption of the 2030 Agenda, former UN Secretary General Ban-Ki Moon stated at the United Nations Private Sector Forum:

"Governments must take the lead in living up to their pledges. At the same time, I am counting on the private sector to drive success. Now is the time to mobilize the global business community as never before." (UN, 2015c)

2.2. THE EUROPEAN EXTERNAL INVESTMENT PLAN

The collective European approach that aligns the SDGs with the EU's development policy is the "European Consensus on Development". The consensus aims at addressing the main themes of the 2030 Agenda – people, planet, prosperity, peace, and partnership (the 5 Ps). Although the main focus of the Consensus is on poverty eradication, it also strongly takes into consideration the high degree of interconnectedness among the previously mentioned SDGs. The Consensus promises that the EU and its Member States will implement the 2030 Agenda *"in a comprehensive and strategic approach, integrating in a balanced and coherent manner the three dimensions of sustainable development, and addressing the interlinkages between the different SDGs…"* (The Council and the Representatives of the Governments of the Member States, 2017. Pp.5). To this end, the EU is currently moving forward with a toolbox of different initiatives, including the ambitious External Investment Plan. Proposed one year after the adoption of the 2030 Agenda, on 14 September 2016, the EIP was formally adopted in September 2017, with the objective to stimulate investments in partner countries in Africa and in the EU Neighbourhood region. In practice, the EIP aims at addressing some of the root causes of migration from non-EU countries and, at the same time, contribute to the achievement of the 2030 Agenda. The European

Fig. 2.2 The three pillars of the EIP

Source: European Commission

Commission will be in charge of monitoring the progress of the EIP, reporting annually to the European Parliament on EIP financing and its operations. The EIP differs from its predecessors in three aspects: firstly, it provides a single-entry point for financing requests and a one-stop-shop for investors, promoters and other potential partners, thus strengthening efficiency and transparency; secondly, it provides a new guarantee mechanism to mitigate the risks associated with investments in unstable countries; and, thirdly, it employs a three-pillar approach to mobilise resources, offer technical assistance and promote a conducive investment climate.

2.2.1. Pillar 1: European Fund for Sustainable Development (EFSD)

Before the EIP, the European Commission had implemented eight regional investment facilities thanks to which, since 2007, € 3.4 billion of EU grants leveraged € 26 billion of loans, producing a total investment volume within the countries eligible for support from the regional investment facilities of around € 57 billion. Two of these regional blending[7] facilities, namely, the "Africa Investment Platform" and the "Neighbourhood Investment Platform" (with a budget of € 2.6 billion), were paired with the new EFSD guarantee instrument (€ 1.5 billion[8]), which provides partial guarantees within some thematic or geographic investment windows (or priority investment areas). Together, these tools form the European Fund for Sustainable Development (EFSD), the first pillar and the financial component of the EIP. Considering the EU experience with blending and regional facilities, the Investment facilities and the new guarantee tool are expected to leverage more than € 44 billion of investments until 2020. The expected outcome is that of leveraging an additional mobilisation of resources from the private sector, as the risks associated with private investment and the consequent potential losses that investors might face would be mitigated by the EFSD guarantee and contemporarily, EU grants will attract additional financing for investments in partner countries by reducing exposure to risk. Furthermore, the European Commission sought to increase this amount by calling on Member States to mobilise more resources directly, through contributions to the EFSD and, indirectly, through second-loss guarantees.

In November 2017, the European Commission identified the first five investment windows or priority investment areas, where the EIP could have a higher impact on sustainable development. These are:

1. Sustainable Energy and Connectivity
2. Micro, Small and Medium Sized Enterprise (MSMEs) Financing
3. Sustainable Agriculture, Rural Enterprises and Agribusiness
4. Sustainable Cities
5. Digital for Development

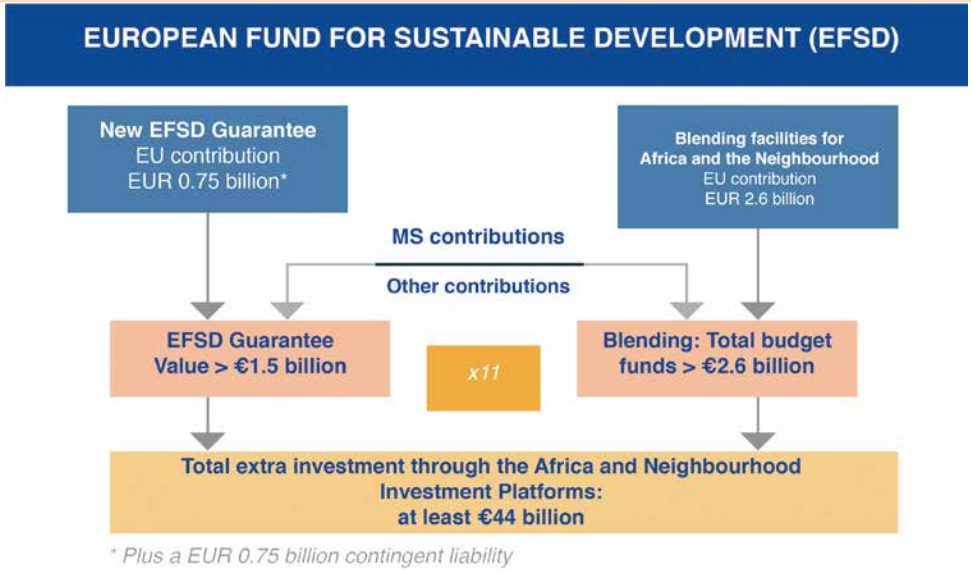
On 10 July 2018, the Strategic Board of the EFSD gave its

7 The principle of blending is matching EU grants with loans or equity from public and private financiers

8 The new EFSD guarantee too is protected by a fund of €750 million, mobilised when a guaranteed project defaults. If more than 50% of the projects default, the difference will be covered through EU budget reserves, in agreement with Member States

Fig. 2.3 The European Fund for Sustainable Development

Source: European Commission



green light for twelve EU guarantees, for a total value of approximately € 800 million, which will complement the € 1.6 billion previously mobilised for blending operations. Together, these are expected to mobilise € 22 billion in public and private investments. An interesting example of a new guarantee program is the DESCO financing program, led by the African Development Bank (AfDB) with an input of € 50 million from the EU, which will contribute to the distribution of solar power kits to thousands of families in Sub-Saharan Africa. As regards blending operations, the Boost Africa Initiative, a joint initiative with the AfDB, is worth mentioning. With a particular focus on young people and gender issues, the initiatives focus on sectors which include ICT, financial services and financial inclusion, health, education, renewable energy and others. The joint initiative uses a combination of investment tools, technical assistance and training to support micro-, small- and medium-sized enterprises in their earliest stages. As the next paragraphs will show, each of the investment programs presented are accompanied by substantial technical assistance.

2.2.2. Pillar 2: technical assistance

The second Pillar of the External Investment Plan is "Technical Assistance". In a nutshell, this pillar will help in the development of bankable projects which could be financed by the EFSD under Pillar 1, but also support

the activities aimed at creating an adequate business climate, complementarily to Pillar 3. The EC, for its part, had already allocated significant capital to achieve this twofold objective in the past. For example, between 2012 and 2017, an existing stock of investment-related technical assistance worth approximately € 5.1 billion was allocated to Sub-Saharan Africa, with approximately 80% was used to foster an investment climate, while the remaining 20% supported development of projects. Several activities are being carried out by the EC within the framework of Pillar 2. On the one hand, when technical assistance is provided to support Pillar 1, it can be categorised in three sets: activities taking place in the Investment pre-identification phase concerning feasibility; activities in the Investment preparation phase; and activities in the Investment phase. On the other hand, actions supporting the objectives of Pillar 3, "Promoting A Conducive Investment Climate", include promoting investment climate analysis; implementing structured dialogues; supporting national or regional government; and strengthening capacities of the private sector and public authorities by providing policy expertise and assistance to improve governance.

2.2.3. Pillar 3: promoting a conducive investment climate

Whereas Pillar 1 concerns the mobilisation of resources and Pillar 2 regards providing technical assistance, Pillar 3 of the EIP focuses directly on implementing a regulatory environment capable of maximising investments and, therefore, the effectiveness of the plan. In this regard, the third pillar provides a multilevel approach in which EU delegations will play a fundamental role with structured dialogues being implemented with businesses at different levels, and complemented by dialogues with the national governments of the partner countries. These are being set up to establish good governance, to support institutional reforms on the basis of market, sectoral and value-chain considerations and finally, to ensure coherence with EU policies, Member States initiatives and aid modalities. The goal of achieving a conducive investment climate will be reached thanks to two tools for structured dialogue with the private sector, both launched in autumn of last year. The first, as regards Africa, is the "Sustainable Business for Africa" (SB4A) platform, involving representatives of the EU and African private sector, including non-profits, and is facilitated by European Business groups, together with the EU delegations. The second is the "Structural Reform Facility for Eastern Neighbourhood", which has similar objectives to those of the SB4A, but differs from the latter in different aspects, including its management in the hands of the Directorate General for European Neighbourhood Policy and Enlargement Negotiations (DG NEAR), and, of course, in its geographical scope. Moreover, the involvement of civil society organisations and the private sector is fundamental in the context of this pillar, considering the fact that these actors, due to their local involvement, are better positioned in the market to identify barriers and obstacles for investments and businesses. A key element to be discussed among the key tools for policy dialogue is Budget Support. Budget

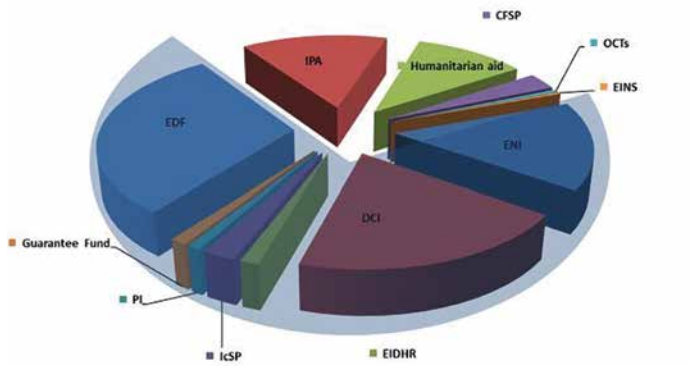
Support involves the transfer of financial resources to the partner country following the fulfilment of agreed conditions on policy reforms or development results. It focuses on various areas including economic and fiscal policy, market reforms, trade facilitation, education, health and social protection and others. In these areas, it aims at addressing barriers preventing the emergence of a conducive investment climate at different state levels, also considering sector-specificities.

2.2.4. The future of the External Investment Plan in the new Multiannual Financial Framework.

On 2 May 2018, the European Commission released its package including the proposal for the next Multiannual Financial Framework (MFF), which sets a cap on EU commitments and payments for the period 2021-2027. Needless to say, due to the prospect of Brexit and its consequent impact on the EU Budget, some feared that cuts may be made to development and cooperation policies and that the EU might lose its importance in this area compared to other countries such as China[9]. Yet, these fears were proved wrong. Cuts were made to cohesion policy and the EU's Common Agricultural Policy, however there have been increases in policy areas such as Research and Innovation, external border protection and security and defence. As well, the European Commission proposed an external action budget worth € 123 billion for 2021 to 2027, an increase of 30% compared to the current budgetary period (€ 94.5 billion). Together with this increase, there was the proposal to establish the single tool, "Neighbourhood, Development and International Cooperation" (NDIC), which would unify seven different tools. According to the European Commission, the necessity to renew the architecture of external action financial tools arises from the need to develop a more flexible and efficient framework to deal with the multi-dimensionality of global challenges. By having various tools, with their respective priorities and management structures, it is claimed that the artificial barriers between them are raised. Therefore, the NDIC would, in theory, allow for overcoming these administrative barriers and increase flexibility.

Fig. 2.4 New structure of the EU's external action funding under the Multiannual Financial Framework 2021-2027

Source: European Commission



9 See also Fox, Benjamin (2018). EU budget promises sweeping changes to development policy. Euractiv.com. 01/05/2018. Available at https://www.euractiv.com/section/development-policy/news/eu-budget-promises-sweeping-changes-to-development-policy/

Building on the experience of the External Investment Plan, the New Neighbourhood, Development and International Cooperation tool would include an investment framework for external action[10]. The financial arm of the NDIC would be made up of the European Fund for Sustainable Investment (EFSD+) and the External Action Guarantee (EAG), and together, the EFSD+ and the EAG could mobilise up to half a trillion euro in investments for the period 2021-2027. Africa would thus remain a priority for the EU, with the proposed allocation of funds for Sub-Saharan Africa corresponding to € 32 billion. At the same time, the EU remains committed to working towards achieving the target of investing 0.7% of its collective GNI in official development assistance, and devoting 0.2% of its collective GNI to least developed countries, many being in Africa.

However, it is important to stress that the negotiations among the institutions over the MFF are far from being finalised. As of the beginning of November 2018, the position of the Parliament was still to be confirmed by the Plenary of mid-November, while the Council was still negotiating to agree on a common position. It is also interesting that the approach adopted by the Commission on the use of Official Development Assistance (ODA) to support private investments in developing countries, which is one key element of the new "European Consensus for Development", has been criticised by many CSOs. For instance, a coalition of CSOs including Action Aid, Action Contre la Faim, Eurodad, Fair Trade Advocacy Office, Oxfam International, World Vision and the WWF, among others, put forward two arguments against the approach proposed by the EC on external action in the new MFF. Firstly, they claim that the fact that the EIP could bring about sustainable development is yet to be demonstrated, considering that it is still too early to assess the Plan's long-term results. Thus, it could be a mistake to integrate the EIP approach in the MFF. Secondly, they claim that using tools other than grants in social sectors, such as health and education, could lead to the progressive privatisation of these sectors and, according to these NGOs, this would erode universal access (Eurodad, 2018).

Whilst discussing the future of EU external actions, it is worth noting the fact that during the State of the Union Speech of September 2018, President Juncker proposed a new "Africa – Europe Alliance for Sustainable Investment and Jobs", to strengthen the EU's economic and trade relations with Africa. The proposal outlines key actions including to boost strategic investment and strengthen the role of the private sector via grants and loans blending and guarantees; to invest in education and skills to improve employability and match skills and jobs; to improve dialogues with African partners, supporting their economic reforms; and to identify new value chains via the Jobs and Growth Compacts. As well, the proposal also suggested supporting the African Continental Free Trade Area negotiations and transforming the various EU-African economic agreements with the long-term objective of creating a comprehensive continent-to-

10 See also European Commission (2018). Questions and answers: the EU budget for external action. Available at: http://europa.eu/rapid/press-release_MEMO-18-4124_en.htm

continent free trade agreement between the EU and Africa[11]. The approach proposed by the European Commission in September on the 'Africa – Europe Alliance for Sustainable Investment and Jobs', clearly demonstrates coherence with the negotiating mandate adopted by the EU Council in June on the future agreement between the EU and the African, Caribbean and Pacific countries (to be discussed later).

2.3. ACP – THE COTONOU AGREEMENT

Parallel to the negotiations over the next Multiannual Financial Networks are the negotiations on the future of the "Cotonou Agreement", which will expire on 29 February 2020. The Cotonou Partnership Agreement (CPA) is a treaty signed in 2000 by the fifteen EU Member States of that time and 78 African, Caribbean and Pacific states (ACP countries).

The treaty replaced the Lomé Convention (signed in 1975), entering into force in 2003 and further revised to enhance its effectiveness in 2005 (entering into force on 1 July 2008) and in 2010 (entering into force in 2011). The agreement is based on three pillars – the political dimension, economic and trade cooperation and development cooperation. It also includes three explicit objectives – "reducing and eventually eradicating poverty", establishing sustainable peace and security, and promoting "the gradual integration of the ACP countries into the world economy" (European Commission, 2014. Pp17). In 2016, the European Commission published an extensive assessment on CPA, evaluating its effectiveness, sustainability, impact, efficiency, relevance, coherence and the EU added value (European Commission, 2016). The report concluded that the CPA resulted in progress in achieving its three objectives:

I) action taken by the EU in the CPA framework "has been effective in supporting the eradication of poverty, improving food security and social protection" (P.124);
II) under the CPA, the EU strengthened the capacity of regional institutions to operate in the area of conflict management and peace building, thanks to the design and deployment of new tools such as the African Peace Facility (APF) in 2003 (P.125);
III) "actions undertaken under the CPA have supported the increase in trade, the conclusion and implementation of Economic Partnership Agreements (EPAs), as well as the ACP countries' increasing WTO membership and the group's increasing role in international trade negotiations", hence, strengthening the role played by ACP states in the international economic arena (P.124).

Additionally, as Commissioner Neven Mimica stressed in a recent interview, by strengthening institutional capacity, the Cotonou Agreement also allowed the EU and ACP countries to cooperate more effectively on an international level. The best example of this was

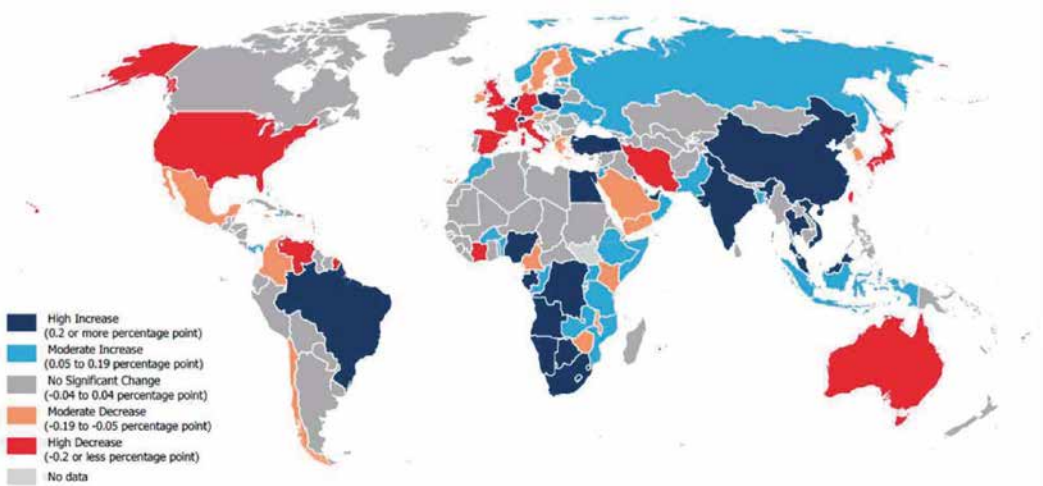
11 For more information: European Commission (2018b) State of the Union 2018: Questions and Answers – Towards a new 'Africa – Europe Alliance for Sustainable Investment and Jobs'. Available at http://europa.eu/rapid/press-release_MEMO-18-5705_en.htm

Fig. 2.5 ACP Countries

Source: Wikipedia

Fig. 2.6 Changes in the share of ACP trade from 2000 to 2016, in percentage point

Source: UNCTAD (2018)



the alignment of positions between the two groups of countries in the 'High Ambition Coalition' that led to the Paris Agreement on climate change in December 2015 (Rios, 2018). It is important to emphasise that despite the many positive results of the CPA, several criticisms have been raise against the current agreement. Perhaps, the most important concerns the fact that regardless of the CPA, the ACP countries' trade share with the EU continues to decrease As Fig.5[12] shows, while the ACP countries' trade share with China, India and other countries in the developing world has been growing, their trade share with the most developed countries, especially with Europe, significantly decreased between 2000 and 2016 (UNCTAD, 2018. P.13). Concerning exclusively Africa, "(t)he shares of imports and exports between Africa and the EU keeps decreasing. Between 2012 and 2016, importation have fallen to 11.1% and exportation to 1%" (Barbière, 2018).

Interestingly, some also criticised the direct and indirect effects of the Economic Partnerships Agreements (EPAs) could have on development in the ACP regions. Currently, 29 ACP countries have implemented EPAs with the EU and other 21 members of the ACP group concluded negotiations over EPAs. Nonetheless, CONCORD (the European Confederation of Development NGOs), on the 28 September, the day when the European Commission launched negotiations with ACP countries on the future of the CPA, emphasised that recent EPAs with ACP countries, in which EU interests shaped the negotiations, could not only fail to deliver development objectives but also negatively affect some economies and promote a fragmentation of the ACP regional markets (CONCORD, 2018; see also African Trade Network, 2018 & CONCORD, 2015). Finally, it is interesting to conclude the list of criticisms against the CPA by mentioning that whilst Art.96, which establishes a procedure that could culminate in different forms of aid-suspension in cases of violations of human rights, democratic principles or the rule of law, has been applied 15 times since 2000, Art.97 "Consultation procedure and appropriate measures as regards corruption" has never been applied. Thus, the issue of corruption, which is extremely problematic in many ACP states and which inevitably has spill-over effects on a variety of economic parameters, remains fundamentally unchallenged.

2.3.1. EU-ACP relations post-2020

With the Cotonou agreement about to expire, the principle of the negotiating mandate adopted by the Council for the future of EU-ACP relations in the post-Cotonou period, is that of promoting the establishment of an umbrella agreement combined with three regional partnerships – with Africa, the Caribbean and the Pacific regions. The three pillars would be complemented by a Foundation**,** applicable to all members, which will list general objectives and priorities to allow for increased cooperation at international level. Importantly, the intention of the EU is also to build the future agreement taking into consideration the principles and the

12 The Figure comes from UNCTAD (2018) KEY STATISTICS AND TRENDS in Economic Integration – ACP Region. Available at https://unctad.org/en/PublicationsLibrary/ditctab2017d4_en.pdf

objectives of the CPA, in particular, Art. 8-13 and the aforementioned Art 96 and 97. The post-2020 EU-ACP countries' agreement would, however, differ from CPA due to the necessity to develop effective models of sustainable development in line with the 2030 Agenda and because of the political importance of addressing current challenges such as irregular migration. The latter element is one of the four main issues on which the negotiating mandates of the EU and of the ACP countries diverge.

2.3.2. Migration management, the framework of the agreement, financing and the growing importance of Africa – four key issues that will affect the negotiations on the post-2020 EU-ACP agreement

It is important to provide an overview on the key issues that will decisively shape the negotiations, by spilling some ink on the matter of migration management, because this represents a key challenge for Europe. In fact, it is interesting to notice that mirroring the emergence of the challenge of irregular migration in Europe, the negotiating mandate adopted by the Council in June states that "(t)he Agreement will, (…), seek to reap the dividends of safe, orderly and regular migration and mobility, and create and apply the necessary leverage, by using all relevant policies, instruments and tools, including development, trade and visa, to achieve measurable results in terms of stemming illegal migration and returning irregular migrants." (Council of the European Union, 2018, P.22). This is in clear conflict with the ACP negotiating mandate adopted on 30 May 2018, which states in its Art. 158 and 159, that "it is proposed that the 'Return and Readmission processes to the country of origin' should be on a voluntary basis" and "(t)he new Agreement should include Political Dialogue that addresses migration (…), and preclude the use of development aid for negotiating of restrictive border control" (ACP Group, 2018. Pp.38-39). Actually, the CPA had already contained requirements for African governments to take back migrants, but the only functioning return agreement in place, at the moment, is with Cape Verde. To change this, however, the EU will need the support of the countries of origin and some fear that the EU might use is political-economic leverage to this end.

Secondly, the two negotiating mandates adopted contrast sharply as regards the framework of agreement. The principle of an umbrella agreement combined with three regional partnerships is not mentioned in the ACP negotiating mandate, which, instead, proposes three pillars: "Trade, Investment, Industrialisation and Services"; "Development Cooperation, Technology, Science, Innovation and Research"; and "Political Dialogue And Advocacy" (ACP Group, 2018).

Another issue that will shape the future agreement is the question of how it will be financed. Indeed, the text of the future MFF proposes the integration of the European Development Fund (EDF) in the EU budget, regardless of the fact that the CPA is currently mainly financed by the EDF, which presently falls outside the general budget of the EU. This is an important concern for ACP countries.

On the one hand, they are worried about the prospect of competing with other priorities for the yearly allocation of funds. On the other, they are concerned by the prospect of an allocation of funds to the ACP countries under the proposed new EU financial architecture, as decisions on how to spend money should be agreed on by the group and not be imposed by Brussels; "That needs a lot of thinking through and that will be an area for negotiations when we come to that," ACP Secretary-General Patrick Gomes warned, Vince Chadwick reports (2018). These are the reasons why the ACP group of states emphasised on 30 May its strong support for "maintaining the European Development Fund (EDF) as the main financial instrument in support of ACP-EU development cooperation", stressing that "one of its unique features is the fact that it is managed outside of the general EU budget" (ACP group, 2018. P.25).

A third, much more geopolitical factor, which could potentially complicate the negotiations is the growing importance of the African Union in the political-economic arena. As briefly mentioned, the AU is currently seeking to develop an African Continental Free Trade Area (ACFTA), and this has further raised questions on the necessity for African countries to negotiate in the context of the ACP. Represented by a single voice would give much more leverage to African leaders in the negotiations and some have even speculated that this could make the Cotonou Agreement framework obsolete, and leave the Pacific and Caribbean states "out in the cold" (Barbière, 2018b). The matter is further complicated by the fact that the most advanced economies of Africa, especially the Mediterranean ones, are not part of the ACP group. Not surprisingly, therefore, the African common position on the post-Cotonou period stresses that "(t)his geographical fragmentation of Africa in its cooperation with the EU weakens and slows down the ongoing integration process on the continent and undermines Africa's political and socio-economic interests. (Barbière, 2018b).

The chief negotiator for the EU is the Commissioner for International Cooperation and Development, Neven Mimica, and his counterpart is Robert Dussey, Minister for Foreign Affairs and Cooperation of Togo. Negotiations began in New York on 28 September and the first technical meeting of the first round of the ACP-EU negotiations took place on 5 November. According to I-Com's intelligence, during the meeting the parties agreed on the negotiation calendar and the key elements of the text will be discussed during the second round of negotiations which will take place between November and January. It appeared the negotiation environment was mainly positive, and that the main divergences in the two negotiating mandates were accounted for as different interpretations or lack of detailed information. The second technical meeting will take place on 14 November.

2.4. OTHER EUROPEAN COOPERATION AND DEVELOPMENT TOOLS

The efforts of the EU institutions are complemented by initiatives carried out by various actors at different levels. For instance, many EU Member States have adopted

different cooperation and development tools, and the following section reports on some interesting French, German and British investment facilities in Africa. On the other hand, it is also important to mention some of the investment facilities adopted by other international organisations, such as the World Bank Group (WBG) and the African Development Bank (AFdB), to provide a general, yet comprehensive overview. The section will conclude with a short paragraph on China's rise as a key investor in Africa.

2.4.1. France

The French Development Agency (AFD) is the main French institutional body in charge of promoting international development. Currently, half of the activities of the AFD concern Africa, where the Agency operates in 54 countries, implementing projects in 44 of them. Among the different activities and projects that the AFD has undertaken, two are particularly interesting in the context of this paper. First, in 2016, AFD and France's main public-investment institution, the Deposits and Consignments Fund (CDC), signed the Strategic Alliance Charter[13] and announced the launch of a € 600 million investment facility for West Africa. Of this € 600 million, € 500 million came from the CDC. The facility was created to leverage nearly € 6 billion for renewable energies, water and sanitation, telecommunications and digital infrastructure, waste treatment, transport, territorial development and health and education. Second, earlier this year the French President Emmanuel Macron revealed a € 65 million African start-up fund, which will be administered by the AFD. AFD claimed that the criteria that to be taken into consideration for the funding will be mainly related to the capacity of start-ups "to solve problems in terms of job creation, access to financial services, energy, health, education and affordable goods and services…" (Bright, 2018). Of the € 65 million available, € 10 million will be for technical assistance, € 5 million will be accessible as interest-free loans and € 50 million will be for equity-based investments in series A to C start-ups.

2.4.2. Germany

The German Federal Ministry for Economic Cooperation and Development (BMZ)[14], supports private-sector activities in order to contribute to the development of partner countries. An example of this is the develoPPP.de program, where the BMZ provides companies investing in developing countries with financial and, when necessary, professional support. The conditions of the develoPPP.de program are that the company must contribute to at least 50% of the overall costs, with BMZ covering up to € 200,000, within a maximum time-frame of three years. Since 1999, the three public partners appointed by the BMZ to implement the program (DEG, GIZ and sequa) have established more than 1,700 development partnerships with German and European businesses. The BMZ has also set up two specific programs for Africa. Within the

13 More information on Donor Tracker: https://donortracker.org/node/412

14 All the information on the activities of BMZ can be accessed here: https://www.bmz.de/en/issues/wirtschaft/privatwirtschaft/index.html

"Employment for Sustainable Development in Africa (E4D)", the GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) is responsible for the establishment of public-private partnerships in the eight target countries (Cameroon, Ghana, Kenya, Mozambique, South Africa, Tanzania, Uganda and Zambia), with the objective of encouraging successful and decent employment opportunities. The program focuses on extractive industries and sectors such as water, energy, waste management, tourism, agriculture and forestry. The second program set up exclusively for some countries in Africa is the " PPP Fund for Fragile States of West Africa", which concerns the Ivory Coast, Guinea, Liberia and Sierra Leone. The Fund is also managed by the GIZ, and those companies involved are expected to respect a core range of fundamental values, as well as maintaining good relations with the communities they work with. Last, but perhaps most importantly, the BMZ has also initiated very recently an extremely ambitious "Marshall Plan with Africa", which focuses on free trade, job creation and economic development, whilst seeking to provide incentives for private and institutional investors to invest in infrastructures.

2.4.3. United Kingdom

The Department for International Development (DFID) is the British institutional body responsible for working towards poverty eradication and achieving the Sustainable Development Goals. Among its projects, the "Invest Africa Initiative"[15], launched in May 2017 with a budget of £ 21,797,262, is expected to leverage £ 1 billion in new Foreign Direct Investment (FDI) in manufacturing in Africa. The project will end in 2024, and 40% of its budget is being allocated to industrial policy and administrative management, 30% to SME development, 20% to industrial development and 10% to business support services and institutions. As well, the initiative is also meant to address sector-specific barriers to investments. Secondly, the second phase of DFID's Support to the Private Infrastructure Development Group (PIDG)[16] was also launched in May and, with a budget of £ 415,425,638, it aims at mobilising investments in infrastructures to boost economic growth and support job-creation and trade, whilst alleviating poverty. To this end, the PIDG created various facilities and investment tools to provide several types of financial, technical and strategic support. It is also important to note that with the Brexit date approaching, British Prime Minister Theresa May has voiced, however, Britain's willingness to strengthen its ties with extra-EU regions, including Africa. During her last trip to South Africa, PM May pledged that the British government would invest £ 4 billion in Africa, with objective of making the UK the biggest investor in the continent of the G7 countries (Meldrum, 2018).

2.4.4. The World Bank Group (WBG)

The World Bank Group recognises the vital role that the private sector must play in achieving the Sustainable Development Goals, and supports private investments

15 For more information: https://devtracker.dfid.gov.uk/projects/GB-1-205226

16 For more information: https://devtracker.dfid.gov.uk/projects/GB-GOV-1-300351

in capital through a variety of tools, which include loans and blended finance, among others. An interesting example of this is the "IDA18 IFC-MIGA Private Sector Window (PSW)" (IDA PSW) which, as the name suggests, is an allocation of US$ 2.5 billion for the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA) to catalyse private investments in IDA-only countries, and in IDA-eligible fragile and conflict-affected states (FCSs). The IDA PSW[17], considered the flagship initiative of the WBG, has four main objectives: to support the engagement of IFC/MIGA in IDA-only and FCSs; to overcome risks and other forms of barriers to investments; to channel private investments to support the creation of markets; and to support IDA18 objectives and special themes[18]. The WBG seeks to achieve these objectives through four facilities. First, the Risk Mitigation Facility (US$1 billion), to be used only when the supply of existing WBG tools is not able to meet demand, which aims at supporting private investments in large-scale infrastructure projects and Public-Private Partnerships (PPPs), by providing project-based guarantees. Second, the MIGA Guarantee Facility (US$ 500 million), which expands the coverage of MIGA guarantees in PSW-eligible countries, will support private investments by providing guarantees with products covering non-market-related risks such as expropriation, war or breach of agreements covering government obligations, to name a few. Third, the Blended Finance Facility (US$ 600 million), aiming at mitigating financial risks that could be faced by investments in SMEs and agribusiness, which blends PSW funds with IFC investments across sectors believed to have a strong impact on development. Fourth, the Local Currency Facility ($400 million) which will finance high-impact projects in local currency, in cases where currency solutions are underdeveloped. Notably, the IDA PSW will also be supported by IFC's "Creating Markets Advisory Window" which will support private sector organisations in improving their standards and, consequently, facilitate the implementation of the IDA PSW. In general, the IDA PSW will cover issues such as jobs and economic transformation, gender, climate change, fragility and violence, and governance and institution building.

2.4.5. African Development Bank

The African Development Bank (AfDB) is the biggest financial development institution in the continent. The approach adopted by the AfDB for the development of the private sector could be defined as holistic, as it encompasses a number of different actions to improve the business environment, support private actors, strengthen financial systems and promote African trade and, more generally, the integration of the regional market. Within the AfDB, the actor responsible for ensuring the development of the private sector in Africa is the Private Sector Department. The department carries out activities on several private-sector related issues through lending and equity participation, by

17 For more information: https://www.ifc.org/wps/wcm/connect/a6ce320c-70a0-4d36-83dd-2d566f2bc4ba/IDA18_IFC-MIGA-PSW.pdf?MOD=AJPERES

18 For more information: http://ida.worldbank.org/financing/replenishments/ida18-overview

providing guarantees and technical assistance related to the financing of projects, and by conducting operations with the objective of facilitating the creation of a well-functioning investment climate. Two important figures demonstrate the high impact that the AfDB has had, over the years, in supporting the private sectors. First of all, "Each dollar of Bank investment in private sector development leveraged six dollars of third-party co-financing". This impressive figure, should be considered along with the fact that "during 2016, total Bank approvals for private sector operations amounted to US$ 2.71 billion, 24 percent higher than in 2015". As regards energy, the AfDB approved four projects in 2016, for a value of US$ 239 million. These were, a solar photovoltaic project in Mali, hydropower projects in Uganda and Nigeria and a Pan-African Facility for Energy Inclusion.

2.4.6. China

In the 2000s, developed countries were among the top economic partners for their former colonies in Africa. Now, twenty years later, things look rather different, especially due to the rise of China. China has always sought to keep information about its aid spending secret. Nonetheless, AidData[19], a research lab based at the College of William and Mary, was very recently able to reveal Chinese data on aid and loans. The researchers of AidData found that China spent $354.3 billion on aid between 2000 and 2014 and that, despite the fact that China's resources were distributed across several countries, many African countries benefitted from these aid and loans[20]. It is also remarkable how the volume of Chinese FDIs changed between the year 2000, when it was $16 billion, to the year 2016, in which China's FDI stock in the continent reached $40 billion (UNCTAD, 2018b. P.42). However, the most impressive data regards how this trend could further increase in the future. Chinese President Xi Jinping, at the beginning of September, pledged a new financing of $60 billion for projects in Africa. This will translate into different forms, including assistance, but also investment and loans. The pledge is a part of China's plan to embed Africa's future into its own, as these forms of financing come with no sort of political requirements regarding issues such as transparency and environmental protection: Mr Xi stated "China does not interfere in Africa's internal affairs and does not impose its own will on Africa" (The Telegraph, 2018). Therefore, if Europe is serious about its intention to be the main supporter of Africa development, it might need to further step up its efforts.

19 For more information: https://www.aiddata.org/china

20 see also Hatton, 2017

PART 3

ENERGY: A STRATEGIC DRIVER FOR PARTNERSHIPS

3. ENERGY: A STRATEGIC DRIVER FOR PARTNERSHIPS

3.1. AFRICAN NATURAL RESOURCES AND THE INTERNATIONAL ECONOMY

Africa is endowed with important natural resources. The continent has the largest global arable land mass and has some of the longest rivers in the world - the Nile and the Congo. Africa's 63 river basins cover approximately 64% of the continent's land area and contain 93% of total surface water resources[21]. Moreover, Africa hosts the world's second largest tropical forest and the total value added of the fisheries and aquaculture sector is estimated at US$ 24 billion[22]. The continent holds about 10% of global freshwater resources, 17% of global forest cover, as well as 25% of mammal species and 20% of bird and plant species[23].

Africa plays a global role in the extractive sector. The region accounts for about 30% of all the mineral reserves in the world. In addition, oil reserves represent 8% of the global reserves and those of natural gas make up for around 7%[24]. Minerals account for 28% of African GDP and it is estimated that Africa's extractive resources will contribute to over US$ 30 billion per year in government revenue for the next 20 years[25]. Therefore, it follows that the share of extractives in public financial availability is fundamental. Several countries are entirely dependent on mineral extractions. Moreover, the AfDB estimates that revenues from the last oil, gas and mineral discoveries may contribute to additional government revenues of between 9% and 31% over the first ten years of production for many countries, such as Ghana, Liberia, Mozambique, Sierra Leone, Tanzania and Uganda.

Therefore, natural resources and primary commodities are fundamental as sources of public revenues, however, their weight in fostering economic growth has gradually been decreasing[26]. For instance, in Nigeria, oil represents more than 90% of foreign exchange earnings, but only about 10% of GDP (down from 25.6% in 2000). This is emblematic of the decline in the importance of the oil industry compared to other productive sectors, especially services. As well, the decline in extractive resources as a vehicle for growth emerges across most of the African countries. AfBD points out that in 2015 the five fastest-growing African economies were non-resource rich, with Ethiopia, the Ivory Coast and Rwanda leading with 10.2%, 8.8% and 7.1 respectively.

FDI inflows are increasingly preferring non-resource-rich sectors and countries. In 2013, the FDI-to-GDP ratio for non-resource-rich countries was 4.5%, twice the value of 2000. At the same time, the quota of total FDI to resource-rich countries is diminishing. It stood at 65% in 2013, compared to 78% in 2008. Thus, a gradual and long-term economic diversification is taking place,

21 AfDB, African Natural Resources Center (ANRC) Strategy (2015-2020), 2015
22 Ibide
23 UN
24 AfDB, African Natural Resources Center (ANRC) Strategy (2015-2020), 2015
25 Ibidem
26 AfDB, African Economy Outlook 2017

Tab 3.1 Africa's natural resource production (2000, 2010)

Source: AfDB, African Economic Outlook 2013

	2000			2010		
	Africa's share of global production (%)	Value of Africa's production (2010 US$ M)	Number of countries	Africa's share of global production (%)	Value of Africa's production (2010 US$ M)	Number of countries
PGMs	55	10588	1	74	14191	4
Cobalt	43	490	6	62	1775	8
Diamonds	45	4265	16	54	4967	17
Chromite	51	1578	4	42	2442	4
Manganese	32	493	4	30	3131	8
Phosphates	28	4607	10	26	5662	10
Gold	24	25568	36	19	19947	39
Uranium	17	111	3	19	1013	4
Copper	3	2871	11	8	7806	12
Nickel	5	1225	5	5	1535	5
Iron ore	5	4637	10	4	6404	9
Mining total	14	59592	44	12	73286	44
Oil	10	216001	18	11	284875	19
Gas	5	39036	14	7	68423	18
Coal	6	21266	15	4	23759	13
Energy total	10	276303	11		377056	36
Food	8	195082	54	9	260910	54
Non food	8	5618	54	6	5729	54
Agriculture total	8	200675	54	9	266605	54
Timber	12	77267	46	13	87229	54

particularly among commodity-exporting countries, which should lead to a more balanced mix of economic drivers and productive activities. This shift has become increasingly important for several countries that are very vulnerable to commodity price trends, especially oil price shocks, but also minerals and food price changes. For

these reasons, some African states are diversifying their economy away from mineral resources and primary commodities to manufacturing and services. In doing so, for instance Ethiopia, Ghana, Kenya and Tanzania are attracting profitable greenfield FDI[27].

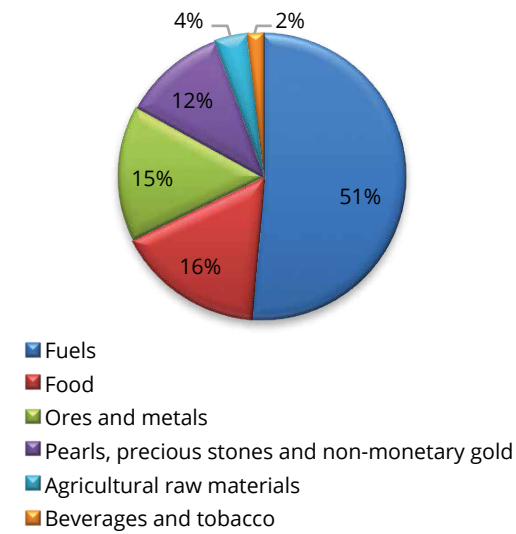
Nevertheless, as we already mentioned, African natural resource wealth is a key factor. In 2010, African countries held 12% of the global mining production, hitting peaks for many minerals. In fact, the region can boast 74% of platinum group metal global production, 62% of cobalt production, 54% of diamonds, 42% of chromite and 30% of manganese (Tab.3.1). In addition, from 2000 and 2010, the number of countries involved in the production of natural resources increased or at least remained the same for all the considered natural resources or primary commodities, excluding iron ore and coal. Even the real output growth rates are notable in this time period. Uranium and manganese presented the highest growth percentage at 813% and 535%, respectively, followed by cobalt (+262%) and copper (+162%). On average, the other natural resources showed a real output growth rate of around 30% between 2000 and 2010, with the exception of gold, that decreased its real output (-22%).

The role of natural resources in the African economy is evident from export performance. According to UNCTAD data, in 2017, Africa as a whole exported products worth US$ 411 billion (see Chapt.1.2) with primary products accounting for the main part. Primary commodities, precious stones and non-monetary gold made up more than 75% (US$ 310.5 billion) of total product exports, while manufactured good represented almost 24% (US$ 99.6 billion). Looking at the African export of primary commodities, precious stones and non-monetary gold in 2017, we can see that fuels alone made up more than 50% of exports (Fig.3.1). They also account for 38.8% of total African exports (US$ 159 billion). Fuels are followed by food and ores and metals at 16% and 15%, respectively, and then pearls, precious stones and non-monetary golds at 12%. Agricultural raw materials and beverages and tobacco account for 4% and 2%.

Here, we can also look at African regional performance. For fuel exports, Central Africa, Northern Africa and Western Africa show similar shares, approximately 30%

Fig. 3.1 African primary commodities, precious stones and non-monetary gold product exports, by product groups (%, 2017)

Source: I-Com elaboration on UNCTAD data



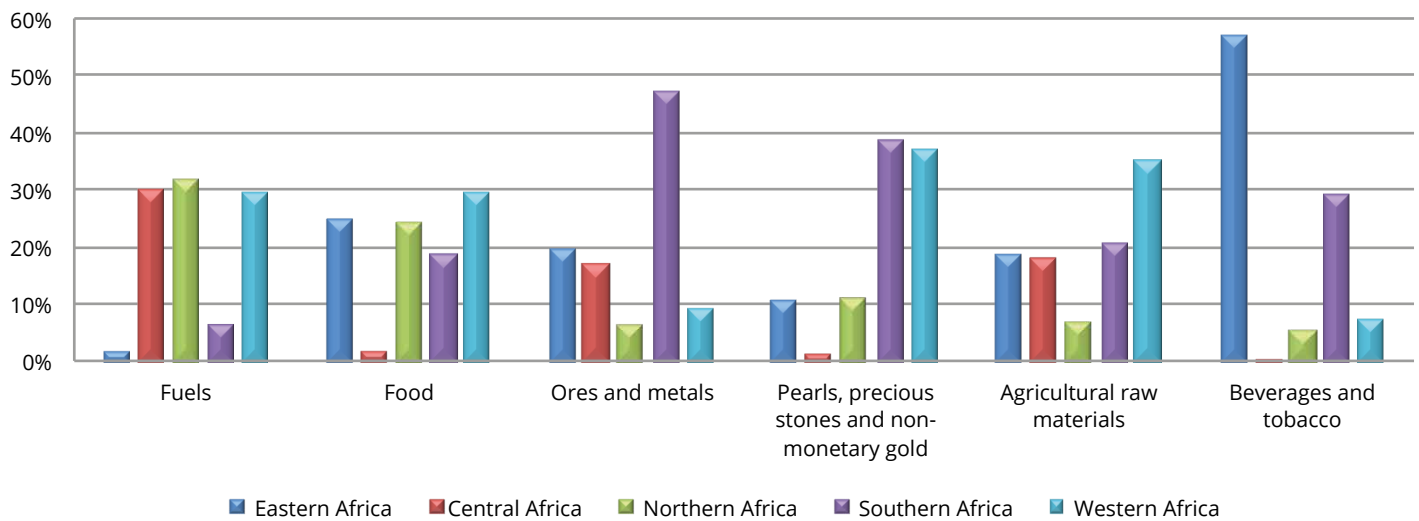
27 Ibidem

each (Fig.3.2). Western Africa has the main quota in food exports (29.6%), followed by Central Africa (24.9%) and Northern Africa (24.3%). As far as ores and metals are concerned, Southern Africa has no competitors, making up around 47% of ore and metal exports. Eastern Africa ranks second with 19.7%. Southern Africa is the first region also for pearls, precious stones and non-monetary golds (38.7%), followed by Western Africa (37.3%). In conclusion, Eastern Africa alone accounts for 56.7% of beverage and tobacco exports, followed by Southern Africa with 29.2%.

Not surprisingly, commodities play a fundamental role in EU-Africa trade relations (see Chapt. 1.2). According to Eurostat, since 2013, the value of EU imports from Africa has declined each year. The main reason for this was the decrease in value of crude oil and natural gas imports, due to falling global market prices. However, when looking at energy products, and especially crude oil, Africa was second only to Russia as an EU import area in 2016. In addition, the three leading African countries for EU imports of goods were South Africa (20% of total import value), Algeria (14 %) and Morocco (12 %). It is also worth underlining that South Africa mainly owed this role to its trade in mining products (e.g. gold and diamonds), apart from motor vehicles. Furthermore, because of the fall in oil prices, countries such as Libya (further affected by the prolonged period of instability caused by the civil war), Algeria and Nigeria have decreased their share in

Fig. 3.2 African primary commodities, precious stones and non-monetary gold product exports, by region (%, 2017)

Source: I-Com elaboration on UNCTAD data



EU imports in the last years. Nevertheless, Algeria is still trading oil products, above all crude oil and natural gas.
As a last consideration, it is worth mentioning that, unfortunately, the rich and unique African ecosystem is under threat, mainly due to deforestation, bad management of natural resources and illegal activities. Between 1990 and 2000, deforestation showed an annual rate of 0.8% in Africa, against 0.2% of the global average, and illegal timber harvesting and trade has a cost of many billion dollars for African countries (US$ 10.1 million in Gabon and US$ 5.3 million in Cameroon), while West Africa has lost US$ 1.3 billion per year because of illegal fishing [28]. This clearly shows that many sustainable development and governance challenges must be tackled when looking at African development paths.

3.2. AFRICAN ENERGY SYSTEM: MAIN TRENDS BY FUEL

For several decades, Africa has been consistently increasing its Total Primary Energy Supply (TPES). In a time period based on five-year intervals, between 1900 and 2015, its TPES has more than doubled in its value, increasing by 103%. Natural gas is the fuel that contributed most to this growth (Fig.3.3), increasing from 29.5 thousand of ktoe in 1990 to 106.6 thousand of ktoe in 2015, a growth percentage of 261%. It is followed by hydro, geothermal, solar and wind energy, incrementing by 202% in this time period. They registered 5.1 thousand of ktoe in 1990 and 15.4 thousand of ktoe in 2015. However, this aggregated data hides two different trends - hydro presented a much lower rate of growth if compared to geothermal and solar. Hydro increased from 4.8 thousand of ktoe in 1990 to 10.4 thousand of ktoe in 2015, a growth percentage of 115%. On the contrary, geothermal solar registered only 2.81 thousand of ktoe in 1990, reaching 5 thousand of ktoe in 2015, increasing by 1.689%. Below, we can find oil (+116%), biofuel and waste (+95%). In the end, nuclear (for South Africa) and coal increased by 45% and 42%, respectively. TPES increased from 392 thousand of ktoe in 1990 to 795 thousand of ktoe in 2015.

It is also possible to monitor how fuel shares in the primary energy supply mix have changed over recent years (Fig.3.4). As can be seen, they remained quite stable, with biofuels and waste being the main energy sources, despite reducing their share from 50.2% in 2000 to 47.7% in 2016. Oil follows with 22.6% (14.5% is crude oil and 8.1% oil products) and natural gas, that increased its share from 9.5% in 2000 to 14.1% in 2016. Instead, coal reduced its contribution to TPES from 18.1% in 2000 to 13.2% in 2016. Renewable energy made up the residual shares. Hydro accounts for 1.2% and geothermal and solar, together, 0.6%.

The factors that most affect the primary energy trend are production, exports and imports. Therefore, it is worth looking at how these factors have changed over the past years (Fig.3.5). In 1990-2015, production increased by 62% from 689 thousand of ktoe in 1990 to 1.119 thousand of ktoe in 2015. Exports showed a growth rate

28 AfDB, African Natural Resources Center (ANRC) Strategy (2015-2020), 2015

Fig. 3.3 Trends in Total Primary Energy Supply in Africa (1990=100, 1990-2015)

Source: I-Com elaboration on IEA data

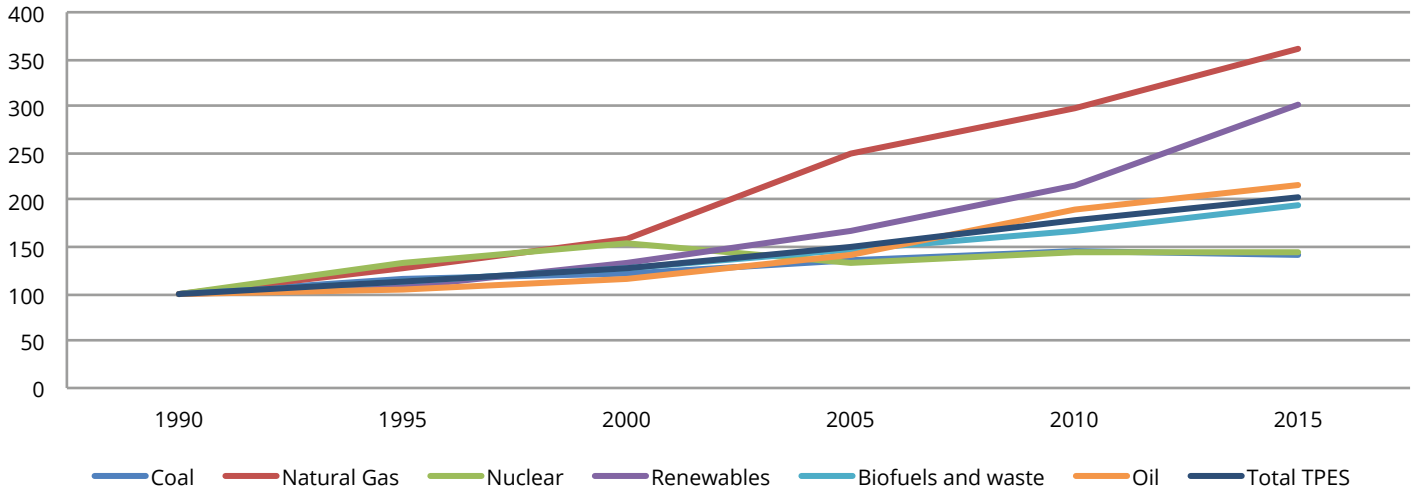
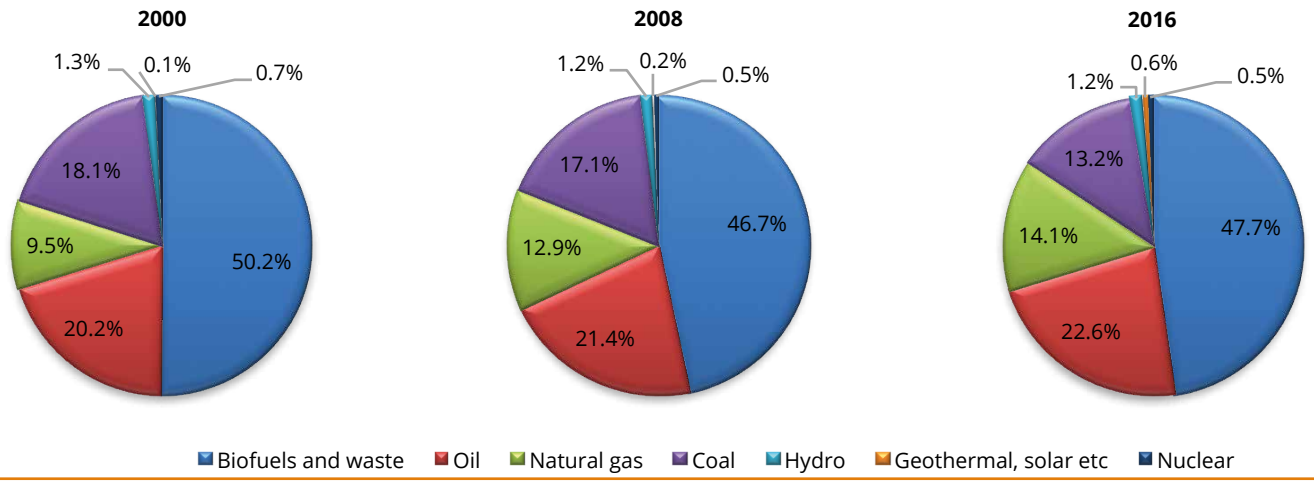


Fig. 3.4 Total Primary Energy Supply, by fuel (2000, 2008, 2016)

Source: I-Com elaboration on IEA data



of 46% in this time period, from 335 thousand of ktoe in 1990 to 489 thousand of ktoe in 2015. Imports exhibit the main growth rate with Africa importing 47.2 thousand of ktoe in 1990 and 177 thousand of ktoe (+274%). It follows that net exports have a positive value, that had been increasing until 2010, and then began decreasing. They were at 288 thousand of ktoe in 1990, while in 2015 they presented a value equal to 312 thousand of ktoe, with a grow rate of 8%. Both production, exports and net exports show their highest value in 2010, while imports grew constantly and had their highest record in 2015.

At this point, we focus on African energy production (Fig.3.6). In 2000, the main fuel produced was crude oil, which represented 44% of the energy production mix. In 2016, it was the second most important fuel with a share of 34.1%. It was surpassed by biofuels and waste that increased from about 28% of the energy production mix in 2000 to more than 35% in 2016. Natural gas was next increasing from 11.8% in 2000 to 15.3% in 2016. Instead, coal has been constantly reducing its quota, from 14.8% in 2000 to 13.6% in 2016. Other energy resources, that include hydro, nuclear, geothermal and solar energy are lower than 1 p.p. Nonetheless, the sources of energy that increased the most are geothermal and solar, which, despite their very low absolute values, increased from 394 ktoe in 2000 to 5,083 ktoe in 2018, skyrocketing in the production mix by 1,190%. They are followed by natural gas with a growth rate of 62.4%. Africa produced natural gas for 104 thousand of ktoe in 2000 and for 169 ktoe in 2016. Biofuels and waste and hydro also consistently increased their production output from 56.6% and 55.2%, respectively, accounting for 390 thousand of ktoe and 9,994 thousand ktoe in 2016. Coal and nuclear present the same growth rate in production - 15.5% -, however, coal makes up around 151 thousand ktoe, while nuclear only 3,915 ktoe. Crude oil is the only fuel that reduced its production, registering 389 thousand ktoe in 2000, and dropping to 377 thousand ktoe in 2016 (-3.1%). In general, between 2000 and 2016, African energy production rose by 25.3%, from 884 thousand ktoe to 1.107 thousand ktoe at the end of this time period.

To complete the picture, it is appropriate to also focus on energy consumption. In a time period based on five-year intervals, between 1900 and 2015, Total Final Consumption (TFC) increased by 98%, therefore almost doubling its value. As for primary energy supply, the fastest growing energy source is natural gas (Fig.3.7),

Fig. 3.5 Trends in Total Primary Energy components (ktoe, 1990-2015)

Source: I-Com elaboration on IEA data

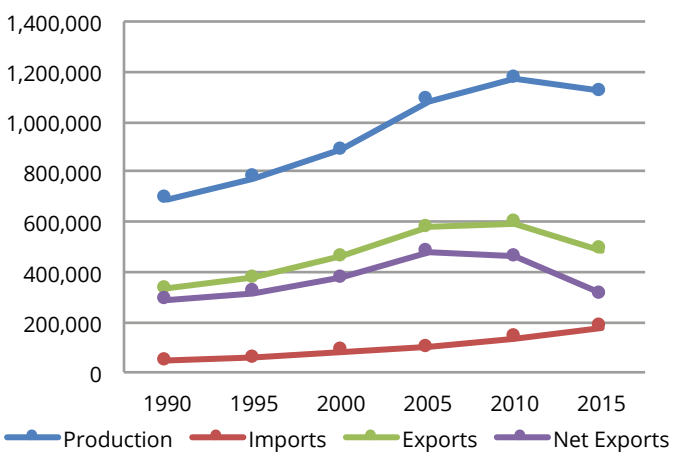
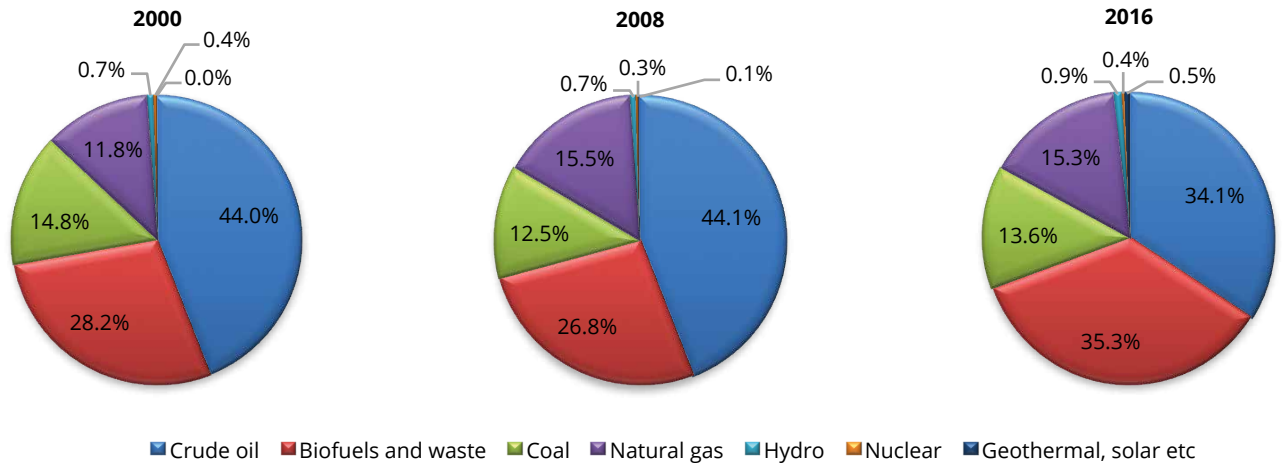


Fig. 3.6 Energy production mix (2000, 2008, 2016)

Source: I-Com elaboration on IEA data



increasing from 8.6 thousand ktoe in 1990 to 33.7 thousand ktoe in 2015, a growth percentage of 293%. Following, we find the consumption of electricity that incremented by 143% in this time period, recording 22.1 thousand ktoe in 1990 and 53.6 thousand ktoe in 2015. It is followed by oil products (+127%, from 70.7 thousand ktoe to 160.4 thousand ktoe) and biofuel and waste (+83%, from 170.7 thousand ktoe to 321.3 thousand ktoe). Coal is the only fuel that decreased its consumption value, decreasing from 19.6 thousand ktoe to 17.9 thousand ktoe (-4%) from 1990 to 2016. In general, in 2015, TFC stood at 579 thousand ktoe, while it had a value equal to 292 thousand ktoe.

If we focus on the energy consumption mix, we can highlight that it has not varied significantly in the last sixteen years. In 2000, the main consumption fuels were biofuels and waste, which represented 59% of the energy consumption mix (Fig.3.8). In 2016, they had lost 5 p.p., but continued to hold the largest share by far. In absolute values, in 2016, African countries consumed biofuels and waste for almost 320 thousand ktoe compared to 215 in 2000 (+48%). Oil products were next, increasing by 4 p.p. in the sixteen years, from 24% to 28%, reaching 165 thousand ktoe in 2016. Electricity, natural gas and coal account for smaller shares. Nevertheless, natural gas rose by 2 p.p. , reaching 35.5 thousand ktoe in 2016 13.9 in 2000, with a growth rate of 154%), while electricity made up for around 9% of the energy mix in 2016 (54.5 thousand ktoe). Instead, coal remained rather stable over this time period at 18.6 thousand ktoe. As a result of energy consumption growth in the period, coal decreased its quota.

Fig. 3.7 Trends in Total Final Consumption in Africa (1990=100, 1990-2015)

Source: I-Com elaboration on IEA data

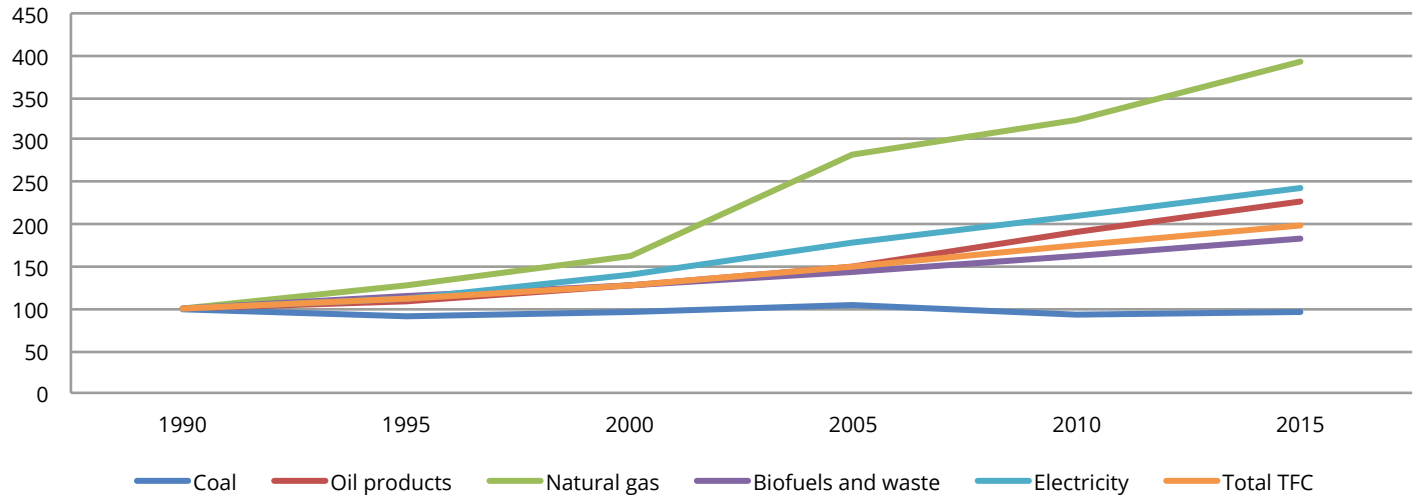


Fig. 3.8 Energy consumption mix (2000, 2008, 2016)

Source: I-Com elaboration on IEA data

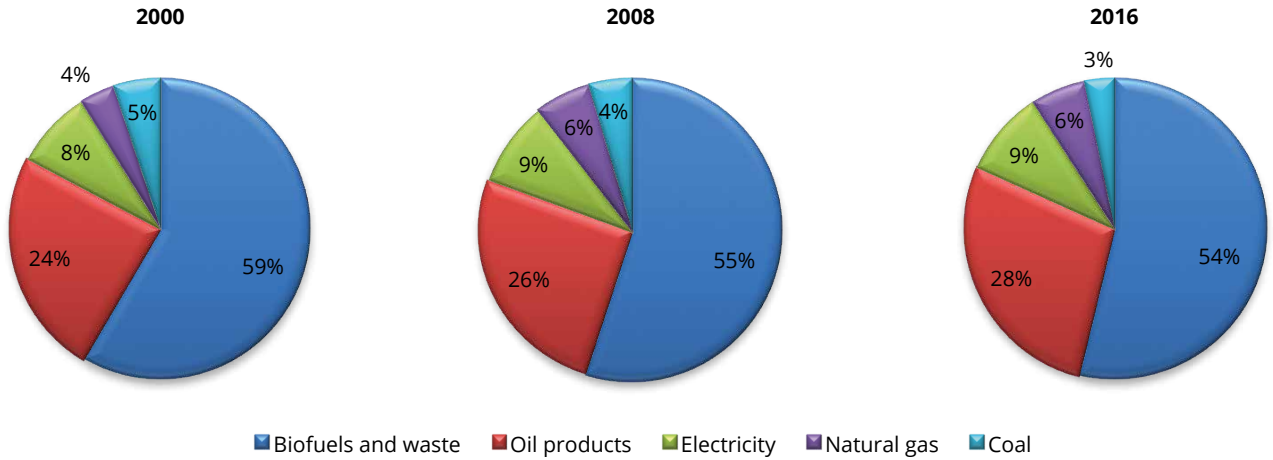
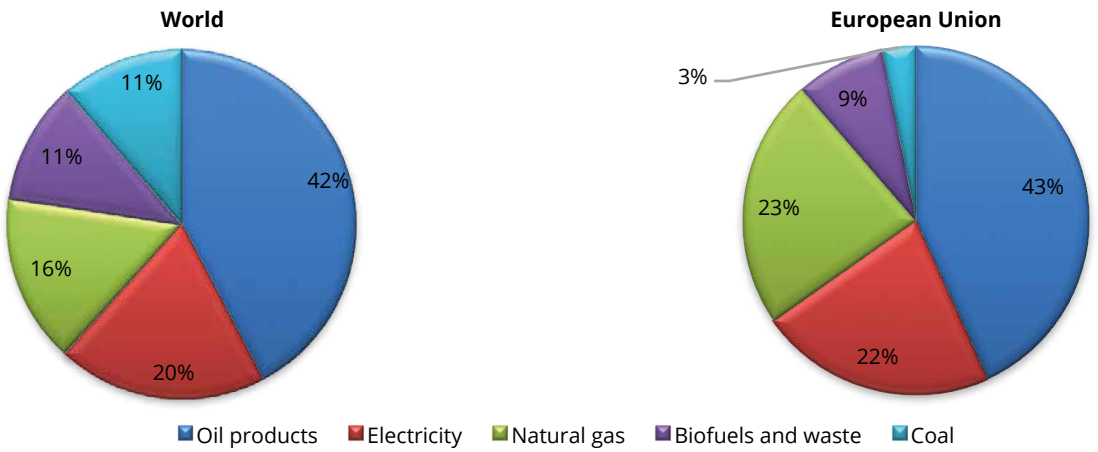


Fig. 3.9 Energy consumption mix (World and EU, 2016)

Source: I-Com elaboration on IEA data

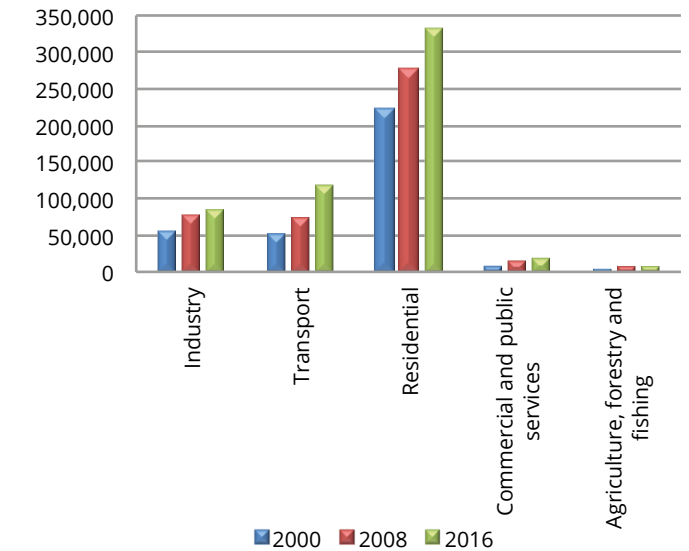


The African consumption mix differs strikingly from the World and EU mix (Fig. 3.9). They both show oil products as the main energy consumption fuel - 42% and 43%, respectively, (compared to Africa's 28%). They are followed by electricity, more than 20%, accounting for 9% in Africa. Following, we find natural gas, with 16% of the global average and 23% of the European mix. Biofuels and waste, that in Africa represent 54%, make up for around 11% globally and 9% in the EU.

Moreover, we can investigate which sectors show the highest energy consumption. The residential sector accounts for 58% of energy consumption in 2016, reaching 330 thousand ktoe in 2016 from 221 thousand ktoe in 2000 (50% growth rate – see Fig. 3.10).The second sector for consumption is transport with around 21% of total energy consumption, presenting 117 thousand

Fig. 3.10 Total Energy Consumption, by sector (ktoe)

Source: I-Com elaboration on IEA data



ktoe in 2016. It was 54.1 in 2000, so more than doubled in sixteen years (+117%). Next, we find the industrial sector which, in 2016, held a share of 15%, consuming 87.2 thousand of ktoe, compared to 57.7 thousand ktoe (+51%) in 2000. Commercial and public services and agriculture, forestry and fishing consumed 22 thousand ktoe and 10.1 ktoe, accounting for only 4% and 2%, respectively, despite having doubled their quotas in the time period considered.

We have already pointed out that African primary energy supply and final energy consumption have increased significantly over the past decades. As mentioned, for primary energy supply, TPES increased by 103% between 1990 and 2015, from 392 thousand ktoe to 795 thousand ktoe. Nevertheless, if we consider the growth of population and economy, it is evident that TPES per capita and GDP is quite constant (Fig. 3.11). TPES per capita stood at 0.67 in 2015, while in 1990 it was equal to 0.62. Instead, the TPES-to-GDP ratio decreased slightly. This ratio gave a value of 0.15 in 2015 and of 0.19 in 1990. TPES per capita shows by far higher values in developed countries, i.e. it is equal to 4 toe/capita in OECD countries and 3 toe/capita in the EU. On the contrary, developed countries present lower TPES-to-GDP ratios compared to Africa (0.11 toe/thousand US$ for OECD countries and 0.09 toe/thousand US$ for the EU).

The same considerations can be made, more or less, for energy consumption, remaining quite stable over the

Fig. 3.11 Primary energy supply per capita and GDP in Africa (toe/capita, toe/thousand US$, 1990-2015)

Source: I-Com elaboration on IEA data

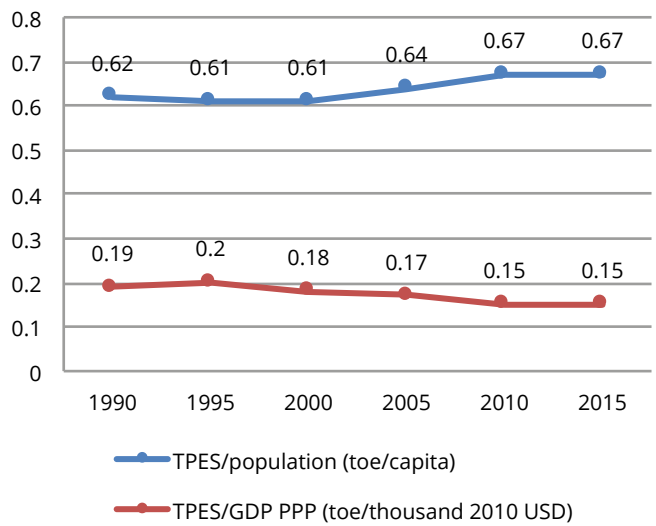
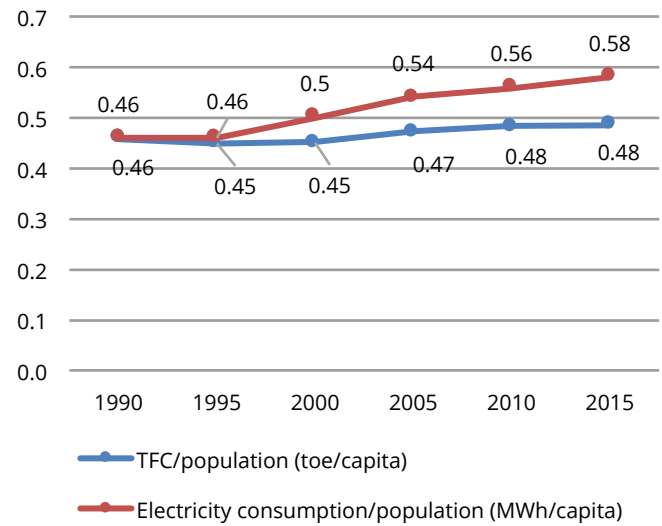


Fig. 3.12 Energy consumption per capita and GDP in Africa (toe/capita, MWh/capita, 1990-2015)

Source: I-Com elaboration on IEA data



period under study. Total Final Consumption per capita showed a value of 0.46 toe/capita in 1990, rising slightly to 0.48 toe/capita in 2015 (Fig.3.12). A higher increase is seen in electricity consumption, rising from 0.46 MWh/capita in 1990 to 0.58 MWh/capita in 2015. On the contrary, the OECD and EU show electricity consumption per capita ratios of 8 MWh and 6 MWh, respectively.

3.3. TOWARDS A LOW-CARBON ECONOMY: GHG EMISSIONS AND THE ENERGY SUBSIDY REFORM

Driven by urbanisation, industrial development and transport, Africa has witnessed a progressive growth in CO_2 emissions for several decades (Fig.3.13). In 1990, emissions amounted to 529 Mt CO_2, while in 2015 they had more than doubled, accounting for 1,141 Mt CO_2 (+116%).

However, if we compare the CO_2 emission increase to the growth of primary energy supply and of final energy consumption, we can highlight that CO_2 emissions did not increase disproportionately (Fig.3.14), with the CO_2 emission/TPES ratio at 1.35 in 1990 compared to 1.43 in 2015. Instead, OECD countries exhibit a higher value, but are reducing their CO_2 emission/TPES ratio, though only slightly, with 2.43 in 1990 and 2.21 in 2015.

We can also compare the rise in CO_2 emissions with population growth. In this case, we have a ratio of 0.84 in 1990 and of 0.96 in 2015 (Fig. 3.15). OECD countries show higher values of more than ten times. In fact, CO_2

Fig. 3.13 CO2 emissions (Mt CO2, 1990-2015)

Source: I-Com elaboration on IEA data

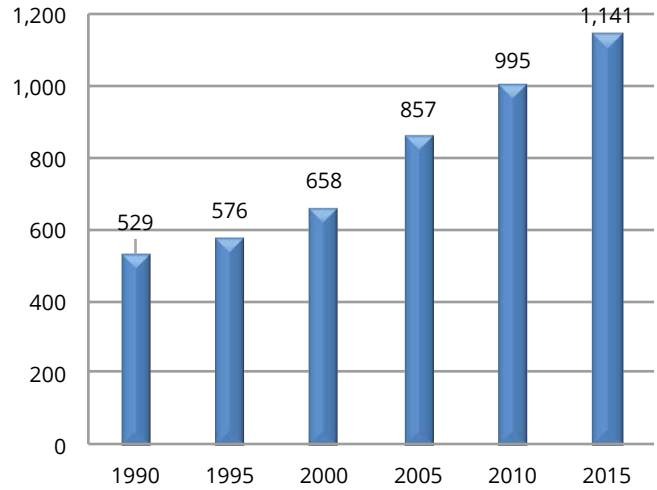


Fig. 3.14 CO2 emissions per Total Primary Energy Supply in Africa and OECD countries (t CO2 / ktoe, 1990-2015)

Source: I-Com elaboration on IEA data

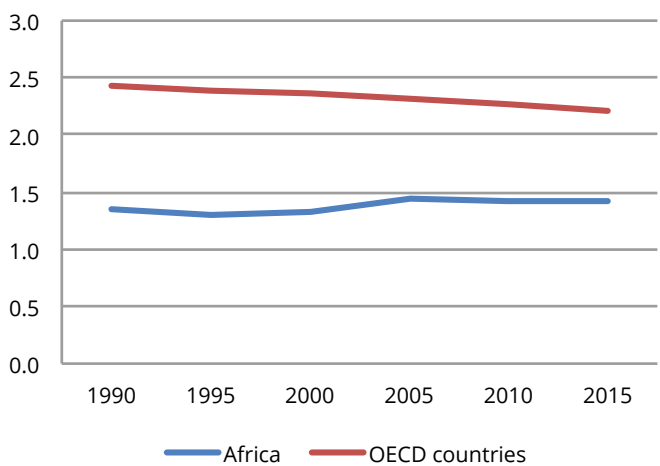


Fig. 3.15 CO2 emissions per population and GDP in Africa and OECD countries (t CO2 per capita, kg CO2/ US $, 1990-2015)

Source: I-Com elaboration on IEA data

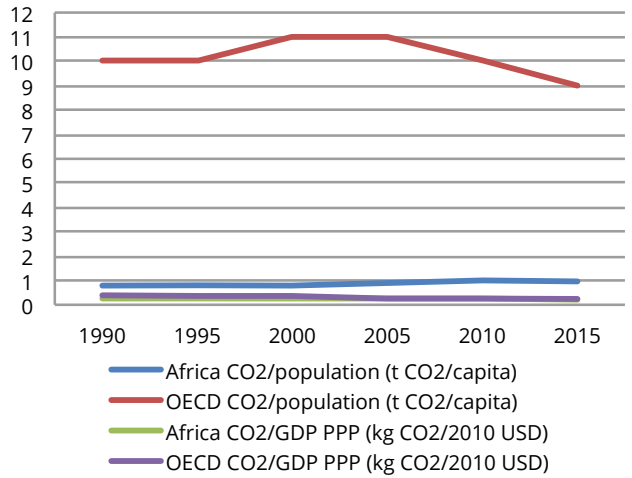
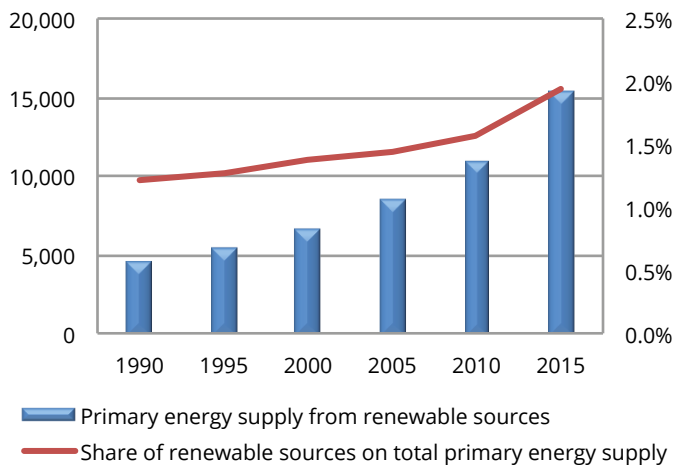


Fig. 3.16 Role of renewable sources in primary energy supply in Africa (ktoe, 1990-2015)

Source: I-Com elaboration on IEA data



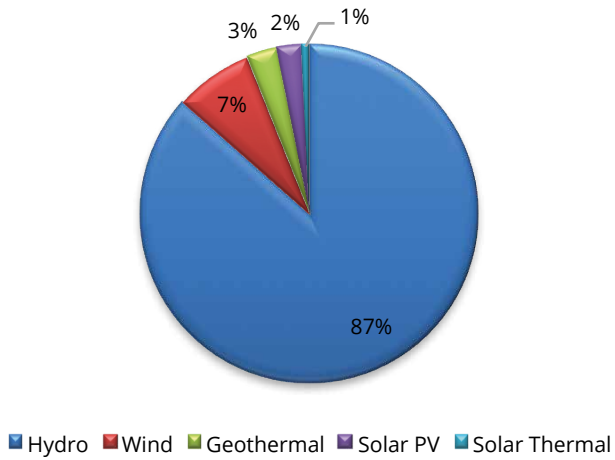
emissions were around 10 t per capita between 1990 and 2015. Moreover, if we take into account GDP growth, the ratio even decreases, with CO_2 emission/ GDP at 0.21 in 2015 compared to 0.25 in 1990. In OECD countries, it is slightly higher at 0.24 in 2015.

Despite the above, African countries could benefit more from a transition to a low-carbon economy, considering the growing level of competitiveness of renewable sources compared to fossil fuels. As already pointed out (see Chapt.3.2), renewables register very low shares in the African energy system. If we look at the weight of renewable sources in total primary energy supply, we can highlight that renewables had a share equal to 1.9% in 2015 (Fig.3.16) compared to 1.2% in 1990. However, in absolute values, they rose from 4,764 ktoe in 1990 to 15,454 ktoe in 2015, a growth rate of 224%. It is higher than the growth percentages presented by the Total Primary Energy Supply and Total Final Consumption, that, as we know, were of 103% and 98% in the same time period.

Furthermore, the role of renewables is very unequal. For example, if we consider electricity generation from renewables, we can notice that hydro alone accounted for 87% of electricity generation in Africa in 2016 (Fig.3.17). It was followed by wind energy with 7%, and geothermal, solar PV and solar thermal making up around 3%, 2% and 1%, respectively, of the electricity generation from renewables. The hydro quota remained the same as decades ago, i.e. in 2000 it accounted for 99% of the electricity generation from renewables.

Fig. 3.17 Electricity generation from renewables in Africa by source (2016)

Source: I-Com elaboration on IEA data



Despite this, Africa has a great untapped potential for renewable sources. AfDB estimates that not even a tenth of the hydropower potential is utilised[29]. As already pointed out (see Chapt.1.3), the African infrastructure system is quite inadequate, especially in the power sector. More than 640 million Africans do not have access to energy, being the lowest electricity access rate in the world at just over 40%. We must also consider that per capita energy consumption in Sub-Saharan Africa (excluding South Africa) is 180 kWh. In the United States, it is 13,000 kWh and in Europe 6,500 kWh. Moreover, the IEA estimates that 89% of the world's energy poor will reside in Sub-Saharan Africa in 2030[30]. It should be recalled that energy access is fundamental for several reasons. It reduces the cost of doing business, fosters economic growth and job creation and guarantees people health and wellbeing.

From the previous analysis, it is evident how much more African countries rely on fossil fuels (oil, gas and coal) compared to renewable sources. It is reasonable to forecast an increase in the fossil fuel share in the energy mix, due to the recent oil and gas reserve discoveries. Furthermore, the improvement of transport networks should lead to a greater use of fossil fuels, since the transport sector is heavily reliant on oil. On the other hand, it would be proper to sustain fossil fuel phasing-out in order to achieve Paris Agreement goals and to promote sustainable development. Here, it is unanimous that energy subsidy reform is one of the most important actions to be pursued. Energy subsidies represent a burden on government budgets, reducing resources that could be spent more efficiently and obstructing economic growth and sustainability. Compared to sustaining renewable sources, they disadvantage the competitiveness of low-carbon industries, distort carbon price signals, decrease investments in renewable sources and energy efficiency and weaken energy security. As well, subsidising fossil fuels threatens public health, increasing air pollution. As an example, the IMF estimated that phasing out subsidies to fossil fuels would lead to a 23% reduction in emissions and a 63% decrease in worldwide deaths because of outdoor fossil fuel air pollution[31]. Instead, the IEA estimated that 13%

29 AfDB, African Economic Outlook, 2018
30 IEA, Energy Access Outlook, 2017
31 Parry, I., Heine, D., Lis, E., Li, S., Getting Energy Prices Right: From Principle to Practice, International Monetary Fund, 2014

of energy-related emissions received an incentive of US$ 115 per tonne thanks to several subsidies and that, as only 11% of energy-related emissions are subject to a carbon price (average US$ 7 per tonne), carbon price signals are consistently misrepresented[32]. Fixing energy prices to an efficient level could generate 3.5% of global GDP, creating fiscal space to reduce taxes or sustain public spending[33].

Thus, fossil fuel subsidies often present economic, social and environmental costs and impacts, that, if removed, could spur a productive reallocation of resources and the activation of virtuous processes. We refer to subsidy here in its broader definition. According to the WTO, a subsidy is any financial contribution by a government or agent of a government that is recipient-specific and confers a benefit on its recipient in comparison to other market participants[34]. Fossil fuel subsidies take several forms: direct financial transfer (i.e. fuel vouchers or grants to producers or consumers), trade tools (i.e. tariffs on imports of crude oil and petroleum products, quotas and technical restrictions, in order to make domestic fuel production more profitable), regulations (i.e. gasoline prices regulated at below international market levels, regulations that prioritise use of domestic coal for power generation, market-access restrictions), tax breaks (i.e. tax deductions, excise exemptions), credit (i.e. loan guarantees, preferential rates on loans), risk transfers (i.e. insurance or indemnification, limitation of financial liability)[35]. These typologies of subsidies interfere along the whole fossil fuel value chain from production to fuel power generation to transport to consumption.

Despite data on the amount and the extent of subsidies being quite incomplete, it is estimated that fossil fuel subsidies, including subsidies related to electricity, in 30 Sub-Saharan African countries were US$ 32 billion for 2013, decreasing to US$ 26 billion in 2015, because of the reform efforts and the falling price of oil, gas and coal[36]. Angola, the Ivory Coast, Mozambique, Nigeria, South Africa, Tanzania, Zambia and Zimbabwe provided fossil fuel subsidies for more than US$ 1 billion in 2015. We note that the level of fossil fuel use for energy and of economic activity in these countries is in general higher compared to other Sub-Saharan countries, and they often are oil-producing and oil-exporting countries. As well, in 2007-2014, South Africa alone received US$ 4.5 billion for supporting coal-fired electric power generation and coal mining from export credit agencies in OECD member states[37]. Between 2008 and 2014, multilateral development banks provided around US$ 13 billion to Sub-Saharan countries to develop coal, gas and oil industries[38]. Moreover, in 2014, despite a G20

32 IEA, Energy and Climate Change: Special Report, 2015
33 Coady, D., Parry, I., Sears, L., Shang, B., "How large are global fossil fuel subsidies?", World Development, 91, 2017
34 WTO, 1994
35 Whitley, S., and van der Burg, L., Fossil fuel subsidy reform in Sub-Saharan Africa: from rhetoric to reality, 2016
36 Coady, D., Parry, I., Sears, L., and Shang, B., How Large Are Global Energy Subsidies? IMF Working Paper, 2015
37 Natural Resources Defense Council (NRDC), Oil Change International (OCI) and World Wide Fund for Nature (WWF), Under the Rug: How Governments and International Institutions areHiding Billions in Support to the Coal Industry, 2015
38 Oil Change International, Shift the subsidies database, 2015

commitment to foster fossil fuel phasing out, nine[39] of the G20 countries were supporting the exploration of fossil fuels in Sub-Saharan Africa, through public spending or state-owned companies[40].

We must consider that the cost of fossil fuel production and consumption in several countries is not able in itself to fully incorporate negative externalities such as local pollution, impacts on climate change, road accidents and congestion[41]. The IMF estimated total fossil fuel mispricing in Sub-Saharan countries at US$ 49 billion in 2015[42], an important part of which is due to the GHG emissions in South Africa[43]. If we include the cost of externalities in the impact of fossil fuel subsidies, the negative impacts of fossil fuels in Sub-Saharan Africa reaches US$ 75 billion in 2015 - US$ 28 billion for petroleum, US$ 25 billion for coal, US$ 3 billion for natural gas and US$ 19 billion for electricity[44]. Furthermore, the IMF valued fossil fuel subsidies in Sub-Saharan Africa to average 5% of GDP[45], with some worrying peaks such as in Zimbabwe, where subsidies for fossil fuels made up around 44% of public spending. This share is very relevant for fuel-importing countries, as in these states, when energy demand rises speedily, the financing of fossil fuel subsidies risks becoming unsustainable. In conclusion, from different studies it emerges that many countries provided fossil fuel subsidies for an amount that far exceeds health or education spending or official development assistance[46]. In particular, in the Sub-Saharan region a negative relation between fossil fuel subsidies and public financing of health and education[47] can be observed. Therefore, financing energy subsidies drains public resources from social development.

3.4. GHG EMISSIONS AND HUMAN DEVELOPMENT: AN INTERWOVEN DILEMMA

As a final remark, we would like to point out the interwoven relation between human progress and GHG emissions. As mentioned, African countries present difficult problems when considering different indexes related to people's health and wellbeing. At the same time, African countries have, on average, low per-capita GHG emissions.

Fig. 3.18 shows the per capita GHG emission and HDI correlation. The general situation improved from 1990 to 2014. Indeed, the data refers to the global situation

39 Brazil, Canada, China, India, Italy, Japan, South Africa, United Kingdom and United States

40 Bast, E., Makhijani, S., Pickard, S. and Whitley, S., The Fossil Fuel Bailout: G20 subsidies for oil, gas, and coal explorations, Overseas Development Institute, 2014

41 Rode, P. and Floater, G., Accessibility in cities: transport and urban form, The New Climate Economy, 2014

42 Coady, D., Parry, I., Sears, L., and Shang, B., How Large Are Global Energy Subsidies? IMF Working Paper, 2015

43 Whitley, S., and van der Burg, L., Fossil fuel subsidy reform in sub-Saharan Africa: from rhetoric to reality, 2016

44 Whitley, S., and van der Burg, L., Fossil fuel subsidy reform in sub-Saharan Africa: from rhetoric to reality, 2016

45 Coady, D., Parry, I., Sears, L., and Shang, B., How Large Are Global Energy Subsidies? IMF Working Paper, 2015

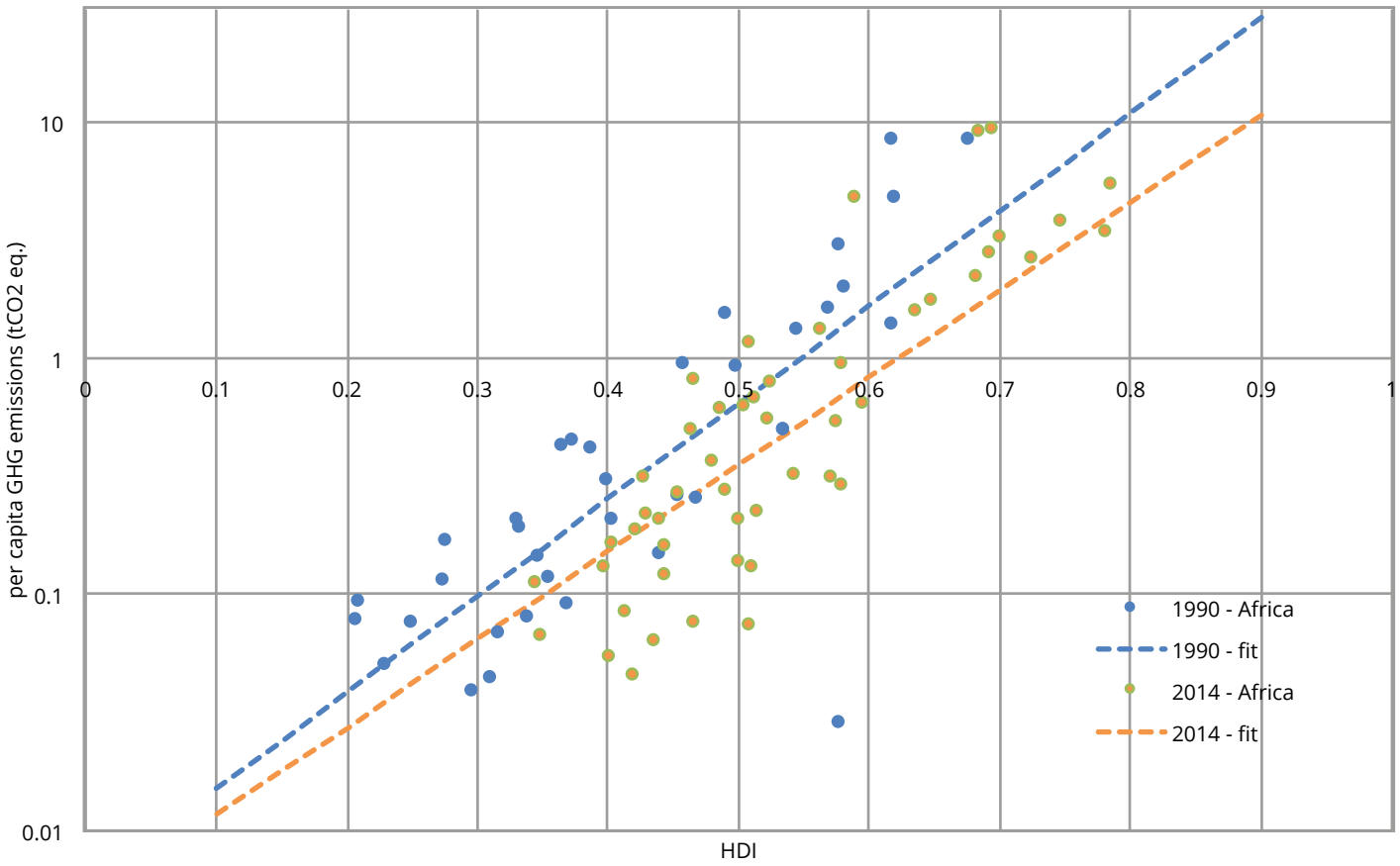
46 Whitley, S., and van der Burg, L., Fossil fuel subsidy reform in sub-Saharan Africa: from rhetoric to reality, 2016

47 International Energy Agency, World Energy Outlook 2014

improving since the 2014 exponential fit of data from all countries is lower than 1990. At the same time, many African countries improved their HDI index, increasing the percentage of countries below the average. Data clearly shows that what could be called the carbon content of human development must be drastically reduced if we want to balance human progress, equality and environmental sustainability (e.g. meeting SDGs goals).

Fig. 3.18 Correlation between per capita GHG emissions and HDI

Source: I-Com elaboration on WB and UNDP data



CONCLUSIONS AND PERSPECTIVES

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The general picture emerging from a cross-analysis of the facts and data presented in the report confirms once more the marked contradictions characterising the development paths of the African continent and its endeavouring to meet the challenges to ensure a balanced wellbeing for its people and for the whole planet.

1. Rising population: challenges and opportunities

Population growth is one of the main challenges for the African continent's future. Thanks to an increase in life expectancy and the high fertility rates, Africa will more than double its population in the next 35 years, increasing from 1.2 billion people in 2015 to 2.5 billion in 2050. This is the highest population growth among the different world regions. Three out of the top ten populated countries in the world will be from Sub-Saharan Africa (Nigeria, Democratic Republic of Congo and Ethiopia). Today, only Nigeria is in the top end of this list. It is striking to notice that Nigeria alone is expected to reach almost 400 million inhabitants by 2050, the same number as the United States and slightly less than the pre-Brexit EU28.

This huge population rise will put further pressure on the fulfilment of the SDGs but, at the same time, is a valuable opportunity when population by age is considered. The world median population in 2015 was slightly less than 30 years, compared to less than almost 20 years for Africa and more than 40 years for Europe.

2. Bridging the development and wellbeing gap

Most of the wellbeing and economic indicators clearly show that Africa is lagging behind in the development paths set by the SDGs. Furthermore, a strong polarisation exists between Mediterranean African countries and South African countries on the one side and Central, Western and Eastern African countries on the other. The latter include some of the lowest ranking countries according to the Human Development Index. Africa as a whole is well behind even in GDP per capita. In 2017, African GDP per capita was about US$ 1,800, while European and Northern American GDP was at US$ 27,430 and US$ 45,760, respectively, and Asia close to US$ 6,690. Differences in GDP per capita among African regions are striking and range from around 400 US$ for Central and Eastern Africa to almost US$ 2,200 in Northern Africa.

The historical growth pace of such indicators is insufficient to fill the gap in a reasonable amount of time. As an example, it is interesting to note that, in 1990, the average Human Development Index of South Asian countries was very close to the African one (0.439 against 0.398, respectively). In 2017, South Asian HDI reached 0.638 (+45% compared to 1990) while African HDI remained at 0.537 (+35% compared to 1990).

3. Boosting African infrastructure

One of the factors hindering the sustainable progress of Africa in the global economy is the inadequate level of infrastructure development in key sectors such as energy, water, ICT and transport. Furthermore, it is widely recognised that infrastructure development is a key enabling factor to meet SDGs targets. The African Development Bank estimates Africa's infrastructure needs to be in the range of $130–170 billion a year, with a financing gap from US$ 68 to US$ 108 billion. In 2016, Africa spent US$ 62.5 billion on infrastructures, transport being the main recipient, with around 39% of infrastructure spending, followed by energy (31.9%), water and sanitation (16.9%) and ICT accounting for only 2.6%. The already mentioned polarisation between the different African Regions can be observed also in infrastructure development and has direct and indirect impacts on productivity and economic growth, as highlighted by the Africa Development Infrastructure Index (AIDI, normalised between 0 and 100). In fact, there is a range of more than 90% between the top-performing country and the worst-performing one. The countries in the top levels of the ranking are mainly from North Africa and a few from Southern Africa with the rest of Africa registering low performance. In 2018, the Seychelles was the best performer with a score of 94.3, followed by Egypt (85.8) and Libya (81.4). South Africa (78.5) and Mauritius (76.8), completing the top five. At the bottom of the ranking, we find Eritrea (8.2), Chad (7.2), South Sudan (4.6), Niger (5.5) and Somalia (3.4).

4. Africa as a key commercial partner for the EU

On the one hand, Africa exported goods and services for more than US$ 490 billion (79% relating to goods) in 2017 while, in 2000, it had been US$ 190 billion. On the other hand, Africa imported goods and services for almost US$ 630 billion, while, in 2000, imports had amounted to US$ 170 billion. In general, exports of goods and services exceeded imports until 2008. Then a turnaround occurred with imports registering a higher value than exports. The trade balance varies from region to region (Fig. 1.17). Traditionally, Eastern Africa has a substantial deficit with foreign countries (-9.3% of GDP in 2017). Since 2008, Northern Africa has also shown a trade balance deficit (-11% of GDP in 2017). Instead, especially Central Africa has exhibited a significant trade balance surplus (20.7% in 2008 and 5.7% in 2017).

Africa is currently the 4th most important EU trading partner after the United States, China and Switzerland. In fact, Africa as a whole accounted for 7.5% of total extra-EU trade in goods. Six African countries made up around 70% of total EU trade in goods with Africa. South Africa was the EU's leading partner, accounting for 17% (€ 44.9 billion) of total EU trade in goods with Africa. Algeria (€ 36.7 billion, 14%) and Morocco (€ 34.4 billion, 13%) followed, then Egypt (€ 25.9 billion, 10%), Tunisia and Nigeria (both € 19.8 billion, 8% each). Energy product imports (mainly crude oil) from Africa amounted to € 41.6 billion in 2016, making up for around 35 % of total EU imports from Africa in the same year. Nevertheless, this is a significant drop compared to 2015 when the EU imported energy products from Africa for € 61.6 billion,

47 % of total EU imports.

Moreover, the EU is Africa's most important trading partner. In 2015, Africa's trade volumes with Europe amounted to US$ 341 billion, while Africa's trade with China and US was at US$ 188 billion and US$ 53 billion, respectively. If we consider only Sub-Saharan Africa, we can underline that, in 2006-2016, the EU made up for around 25.5% of African imports and 23.2% of Sub-Saharan African exports. However, many emerging economies grew significantly during this period with India, Indonesia, Russia, China and Turkey more than doubling their trade with the Sub-Saharan African countries. It is worth noting China's performance, where Sub-Saharan African imports from China increased by 233% and exports by 53%, overtaking the USA as the second Sub-Saharan African trading partner.

5. Lightening-up Africa: the inescapable path to green energy

Access to modern, reliable, clean and competitive energy sources is one of the key drivers to meet the SDGs (apart from being one of the goals in itself). Energy access is still a difficult problem for a considerable part of the African population, especially in the poorest countries. Africa is relying on biomass as a main source of energy, representing slightly less than half of the primary energy mix. Fossil fuel energy mainly represents the other half of the primary energy mix. African renewable energy potential is almost completely untapped. Average total final energy consumption per capita in Africa showed a value of 0.46 toe/capita in 1990, rising slightly to 0.48 toe/capita in 2015. A higher increase is seen in electricity consumption, rising from 0.46 MWh/capita in 1990 to 0.58 MWh/capita in 2015. On the contrary, the OECD and EU show electricity consumption per capita ratios of 8 MWh and 6 MWh, respectively.

The same consideration holds for greenhouse gas emissions. Driven by urbanisation, industrial development and transport, Africa has witnessed a progressive growth in CO_2 emissions for several decades, more than doubling the absolute value from 1990 (529 Mt CO2) to 2015 (1,141 Mt CO2). That said, if we look at the normalised CO_2 emission indicators, we clearly see a disproportionate situation with Africa having less than 1 ton per capita emissions and OECD countries with around 10 t per capita.

6. EU-Africa dialogue

The EU has markedly improved its efforts to contribute to the sustainable development of Africa. This is also demonstrated by the fact that under the new Multiannual Financial Framework up to half a trillion euro in investments for the period 2021-2027 could be mobilised by the European Fund for Sustainable Investment (EFSD+) and the External Action Guarantee (EAG), together with the private sector. Secondly, the EU is not the only actor that is seeking to align its future to Africa's - post-Brexit UK and China are two clear examples of this. Nonetheless, it is also important to stress that International Development is not (always) a zero-sum game. African countries could indeed well benefit from this process of geographic diversification even if every

actor, arguably, is motivated by its very own interests. Yet, in this context, the true challenge is to ensure coherence among the various initiatives. Whilst dialogues between the EU and its MSs and between the EU and other international organisations are well advanced in this regard, state and non-state actors should also work to guarantee that coherence is established between the approaches and the forms of financing provided by growing economies in the developing world, especially China.

The complexity of such interwoven issues calls for a boost in the quality and quantity of EU-Africa relations. SDGs require an integrated and innovative approach where public institutions, firms and civil society must play a synergic and active role.

Bridging the wide SDGs' gap for Africa should be considered a strategic priority for Europe, both to fight against potential threats and to seize on future opportunities. In the highly interconnected modern word, sooner or later, imbalances in a region result in negative consequences on others. This is clearly the case of migration, environmental degradation and climate change. On the other hand, supporting a balanced progress in the economy, society and the environment of African countries could open up opportunities in institutional dialogue, mutual social progress and the market.

Infrastructures are one of the weakest links in the chain. Amongst them, energy plays a pivotal role. EU-Africa exchange in this sector could result in high mutual benefits. On the one hand, Europe could contribute to climate change mitigation, while EU energy enterprises could find new market opportunities. On the other hand, Africa could benefit from well-established institutional and technological system integration experiences, thus reducing the learning curve and the time to market renewable and energy efficiency technologies. Both could benefit from exploring new community-based business models relying on the sustainable deployment of local renewable natural resources and ecosystem services.

It is urgent to act in this direction, creating a coherent framework between Europe, other international institutions and single Member State initiatives. Steering the African development trajectory towards more sustainable paths is essential both for the direct beneficiaries and for the role Europe intends to play in this process. Indeed, new and very active players are now imposing their development agenda in Africa.

Annex A List of African countries by region

Eastern Africa	Central Africa	Northern Africa	Southern Africa	Western Africa
Burundi	Angola	Algeria	Botswana	Benin
Comoros	Cameroon	Egypt	Lesotho	Burkina Faso
Djibouti	Central African Republic	Libya	Namibia	Cabo Verde
Eritrea	Chad	Morocco	South Africa	Ivory Coast
Ethiopia	Congo	Sudan	Swaziland	Gambia
Kenya	Democratic Republic of the Congo	Tunisia		Ghana
Madagascar	Equatorial Guinea	Western Sahara		Guinea
Malawi	Gabon			Guinea-Bissau
Mauritius	Sao Tome and Principe			Liberia
Mayotte				Mali
Mozambique				Mauritania
Réunion				Niger
Rwanda				Nigeria
Seychelles				Saint Helena
Somalia				Senegal
South Sudan				Sierra Leone
Uganda				Togo
United Republic of Tanzania				
Zambia				
Zimbabwe				

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