

Overview of Africa's Natural Resources and its Investment Opportunities

Boahen Isaac

Department of Management, Global Institute of Management and Emerging Technology, Amritsar India,
Affiliated to Punjab Technical University, Jalandhar, India

ABSTRACT

This paper provides an overview of the numerous natural resources in Africa and how these natural resources contribute to the world's export ratio. Extensive literature review through published articles, and reports were used to gather the information. It gives investors across the globe, information on natural resources in Africa for their plans toward investment in Africa.

Key Words: Africa, Natural Resources, Investment, Africa Exports, Cash Crops, Minerals

INTRODUCTION

Africa has 54 countries with aggregate population of about 1,349,886,357 as of Sunday, October 18, 2020, representing 16.72% of the world's population according to the latest United Nations estimates. This means, Africa is the world's second-largest and second-most populous continent after Asia in both cases. It has about 30.3 million km² (11.7 million square miles) including adjacent islands; it covers 6% of Earth's total surface area and 20% of its land area. Africa has huge natural resources, large and youthful population and various episodes of community booms, but most of the continent remain poor (Kalu, 2018). It is not coincidence that, 2019 World Bank report indicated poverty in Africa (defined as income of less than \$1.90 per day) stood at over 41% affecting around 400 million people in 2015 representing a rising share of global poverty (<https://www.weforum.org/agenda/2020/02/africa-global-growth-economics-worldwide-gdp/>). It is justifiable because even in the midst of this technological age, Africa predominantly export raw materials which generate low export revenue as compared to developed countries that export finished goods which generate high revenue. Looking at the fact that, Africa mainly export raw materials, its contribution to the sustenance of the manufacturing industries in other part of the world cannot be underestimated as Africa is a haven for natural resources that serve as raw materials for industries. This paper therefore reviews and illuminates the various resources in Africa and how the resources contribute to the sustenance of the world growth thereby painting picture on investment avenues in Africa.

NATURAL RESOURCES THAT ARE EXPORTED FROM AFRICA

Africa is endowed with vast natural resources ranging from arable land, water, oil, natural gas, minerals, forests and wildlife. The continent is a haven for large ratio of the world's natural resources deposits, both renewable and non-renewable. It is believed that, Africa hold 30 per cent of the world's mineral reserves, 8 percent of the world's natural gas, 12 per cent of the world's oil reserves; the continent has 40 per cent of the world's gold and up to 90 per cent of its chromium and platinum. The largest reserves of cobalt, diamonds, platinum and uranium in the world are in Africa. Africa holds 65 per cent of the world's arable land, 10 per cent of internal renewable fresh water (<https://www.unenvironment.org/regions/africa/our-work-africa>).

Proven oil reserves have grown by almost 150 percent, increasing from 53.4 billion barrels since 1980, to 130.3 billion barrels by the end of 2012. The region is home to five of the top 30 oil-producing countries in the world, and nearly \$2tn of investments is expected by 2036. (https://www.researchgate.net/publication/341788084_Africa_in_Global_Economy)

OIL AND GAS

Africa is home to five of the world's top oil-producing countries, with an estimated 57 percent of Africa's export earnings from hydrocarbons. The countries in Africa that are rich in oil and gas are ; Algeria, Angola, Cameroon, Chad, Republic of Congo, Egypt, Eritrea, Gabon, Ghana, Kenya, Libya, Nigeria, South Sudan, Sudan, Tunisia, and Mozambique. In 2017 Africa's proven gas reserves stood at 487.8 trillion cubic feet representing 7.1% of the world's proven reserves. Pipeline exports from Africa stood at 1.6 trillion cubic feet, making up 6.1% of global exports (<https://www.pwc.co.za/en/assets/pdf/africa-oil-and-gas-review-2018.pdf>).

66The African continent is home to five of the top 30 oil-producing countries in the world. It accounted for more than 7.9 million barrels per day in 2019, which is about 9.6% of world output. With this, Nigeria produced more than 1.9 million barrels of oil per day in 2014 to rank as the 11th-largest oil producer in the world which subsequently improved to 2 million barrels per day between 2015 and 2019. In 2019, Angola also produced over 1.4 million barrels per day with Algeria and Libya producing approximately 1.3 million and 1.2 million barrels of oil per day respectively. Egypt also produced about 630,000 barrels of oil per day in 2019. (www.eia.gov/international/data/world/petroleum-and-other-liquids/annual-petroleum-and-other-liquids-production). Also, Ghana's overall crude oil production is expected to increase from 196,089 barrels per day in 2019 to 420,020 barrels per day in 2023 as announced by its finance minister Honourable Ken Ofori-Atta during his engagement with Norway oil investors on February 14th, 2020. It is therefore not surprising that, many large and renowned multinational oil companies such as Chevron, Exxon Mobil, Shell, Total, Aker, Tullow oil and Eni are operating in Africa creating jobs and prosperity.

MINERALS IN AFRICA

Africa is a major producer of important metals and minerals. Metals exported by African countries include uranium, used to produce nuclear energy; platinum, used in jewelry and industrial applications; nickel, used in stainless steel, magnets, coins, and rechargeable batteries; bauxite, a main aluminum ore; and cobalt, used in color pigments. Africa's two most profitable mineral resources are gold and diamonds. In 2008, Africa produced about 483 tons of gold, or 22 percent of the world's total production. South Africa accounts for almost half of Africa's gold production. Ghana, Guinea, Mali, Tanzania, Benin, Burkina Faso, and Djibouti, are other major producers of gold. Africa dominates the global diamond market. In 2008, the continent produced 55 percent of the world's diamonds. Botswana, Angola, South Africa, the Democratic Republic of Congo, Central African Republic, and Namibia are Africa's largest producers of diamonds. (<https://www.nationalgeographic.org/encyclopedia/africa-resources/>).

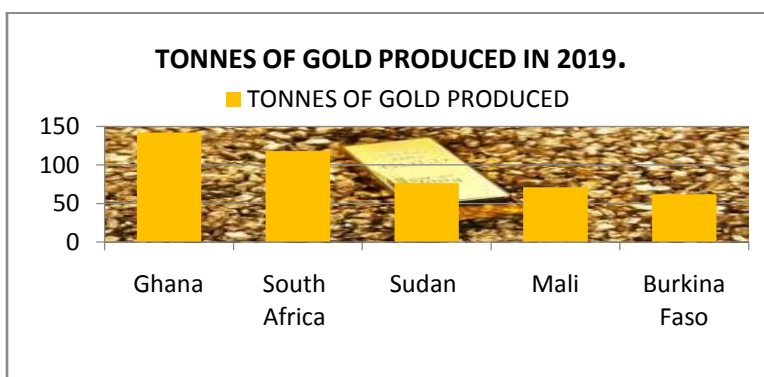
BAUXITE

African countries provide feedstock to some the world's most significant aluminum manufacturers as 32% of the global bauxite resources; the raw material for aluminum production is in Africa. Guinea is the most significant Bauxite supplier to the world with 7.4 billion bauxite reserve which is about 25% of the world's total bauxite reserves. While Ghana has proven reserves of about 160 million tonnes of bauxite, Sierra Leone also has an estimate of 31 million tonnes of bauxite reserve. This means that Guinea alone accounts for 95% of African bauxite production and 15% of world bauxite production according to the latest data from US Geological Survey. Global trade data suggests in 2016 that, Guinea traded 24.5 million tonnes of bauxite globally and the volume increased to 42 million in 2017 which accounted revenue of US\$ 1149 million and 485 million respectively. In 2018, Guinea estimated 50 million tonnes of bauxite export with revenue target of US\$ 425 million. In 2016, Ghana exported 1 million tonnes of bauxite globally and the volume increased to 1.1 million in 2017 which generated US\$ 82 million and 15 million revenues respectively. In 2018, the country targeted an export of 1.8 million tonnes of bauxite with estimated revenue of US\$ 36 million. Also, in 2016, Sierra Leone exported 1.4 million tonnes of bauxite globally and the volume increased to 1.6 million tonnes in 2017 which generated total revenue of US\$ 60 million and 61 million respectively. In 2018, the country estimated to export around 1.3 million tonnes of bauxite and the revenue from export is estimated to be about US\$ 53.6 million. (https://www.alcircle.com/news/top-bauxite-exporters-from-africa-guinea-remains-the-leading-bauxite-supplier-while-china-drives-the-export-764#:~:text=The%20African%20nation%20stands%20to,million%20and%20485%20million%20respectively.)). Africa produced some 66.2 million metric tonnes of bauxite in 2019.



GOLD

According to 2018 data from Miningglobal.com, Ghana's gold reserves is estimated to be 1,000 metric, and South Africa having 6,000 metric tonnes gold reserves. (second-largest in the world). Also, according to Norwegian website, www.eiti.org, Mali and Burkina Faso are estimated to have 800 and 154 metric tonnes of gold reserves respectively. Africa's gold mining industry was traditionally dominated by South Africa but has shifted focus with countries such as Ghana, Mali and Burkina Faso entering the fray in 2019. Ghana grabbed the top spot from South Africa after mining more than 142 metric tonnes of the precious metal while South Africa mined, 118.2 tonnes of gold. The minerals mined in Ghana account for 37% of the country's total exports, with gold comprising 90% of total mineral exports. The north-east African country of Sudan comes third in this list with gold production of 76.6 metric tonnes, followed by Mali with production of 71.1 metric tonnes with Burkina Faso placing 5th position on the list of Africa gold exporting country with production of 62 metric tonnes of gold mined in 2019. The following Multi National companies therefore operate in Africa; Kinross Gold, Newmont Goldcorp, AngloGold Ashanti, Gold Fields Ltd, Harmony Gold, Sibanye-Stillwater, Sudan's Ariab Mining Company, Canada's La Mancha Resources, Canada's Orca Gold, Barrick Gold, LamGold, Banlaw Africa Limited, Etruscan Resource, Endeavour Mining, Roxgold, Société des Mines de Taparko SA, and IAMGOLD. (<https://www.nsenergybusiness.com/news/top-gold-mining-countries-africa/>)



DIAMOND

Diamond is one of the valuable minerals that contribute substantially to Africa economy and the world at large. The African continent alone provides about 65 per cent of the global diamond (https://unctad.org/system/files/non-official-document/suc2017d9_en.pdf). In 2017, diamond exports from African countries were valued at \$9.65bn in the global market. The **Cullinan Diamond** discovered at Premier No. 2 mines in South Africa on 26th January, 1905 was the largest gem-quality rough diamond ever found in the world weighing 3,106.75 carats 621.35 g (Scarratt and Shor, p. 120.) and it was named after Thomas Cullinan, the mines Chairman. It is believed that, diamond mining in Africa gained its root as far back 1870. Currently, diamond mining in Africa produces around half of the world's diamonds and the largest diamond mines in Africa is in Botswana diamond which is the world largest diamond mines; they are Jwaneng and Orapa. (<https://www.miningafrica.net/natural-resources-africa/diamond-mining-in-africa/>).

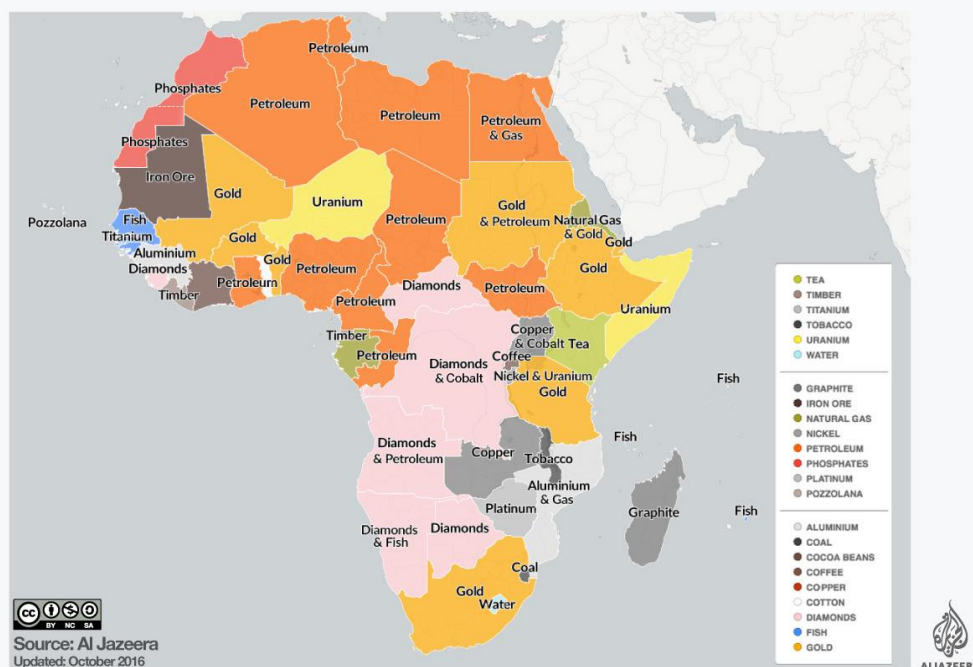
Africa countries such as Botswana, Namibia, South Africa, Sierra Leone, Ivory Coast, Ghana etc are among the world's gem-quality diamonds mined producing nations.

(<https://www.nsenergybusiness.com/news/top-five-diamond-mining-africa/>). In 2018, about 24 million carats-weight of diamonds were reported to be produced in Botswana while Angola produced 8.4 million carats with a value of \$1.2bn according to Kimberley Process statistics but in 2019, the country's diamond production (industrial and semi-industrial) increased to 9.149 million carats, with sale value of \$1.3bn. In 2016, DR. Congo alone exported 23.2 million carats of diamond with the sales value cost at \$229m while South Africa diamond exports were valued at more than \$1.5bn with production exceeding 8.3 million carats. In the same year 2016, Namibia produced a total volume of nearly 1.7 million carats of diamonds worth more than \$915m. (<https://www.nsenergybusiness.com/news/top-five-diamond-mining-africa/>). Ghana, a West Africa country also has an estimate of more than 11 million carats of proven and probable diamond reserves (<http://countrystudies.us/ghana/85.htm>).

OTHER MINERALS

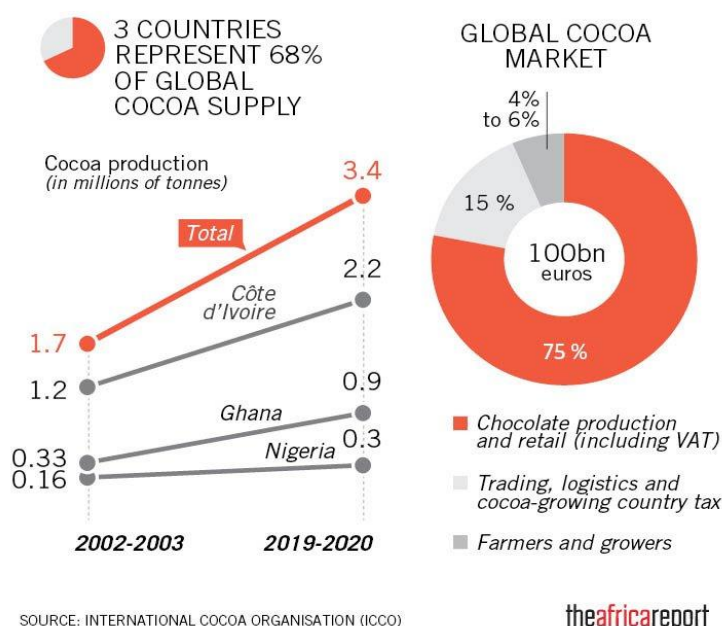
Nickel and uranium, titanium, graphite, iron ore and phosphate are also mined in Burundi, Gambia, Madagascar, Mauritania and Morocco respectively. While aluminium is mined in commercial quantity in Guinea and Mozambique, copper is also mined in large quantity in Uganda and Zambia. The figure below shows Africa map which indicate where various minerals are mined in Africa. Timber, manganese.

Mapping Africa's natural resources



COCOA

Ghana, Cote d'Ivoire and Nigeria alone account for 68% of global cocoa supply in 2019-2020 cocoa seasons meaning that, 3.4 million tonnes of cocoa out of a worldwide total of 5 million tonnes were harvested from Africa. Africa therefore holds the chocolate industry and any hindrances that impede the export of cocoa from Africa will undoubtedly collapse the chocolate industry.



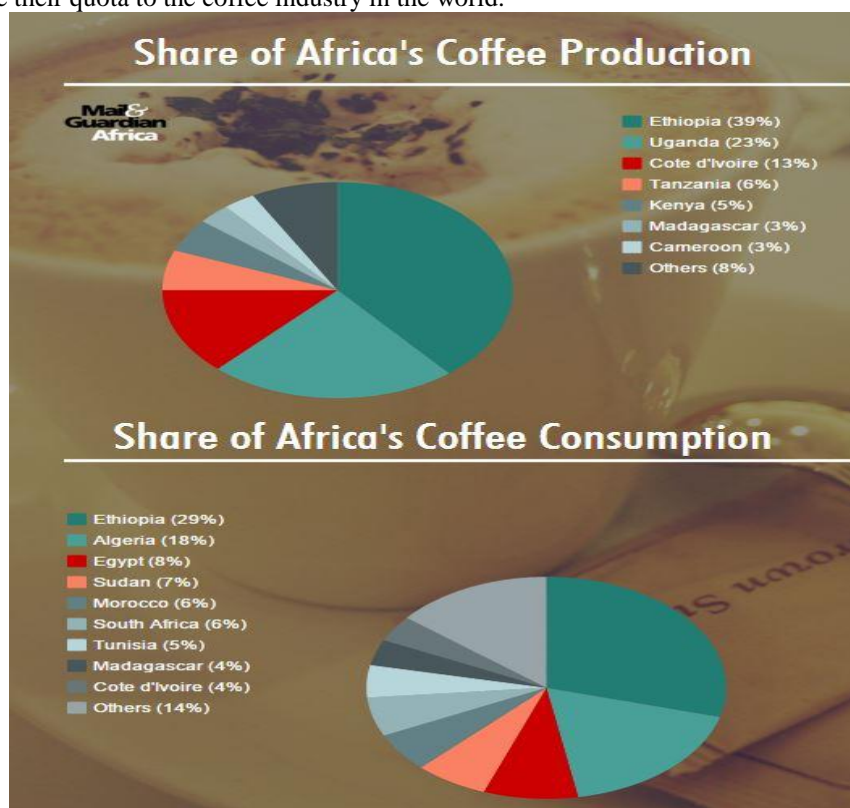
According to Euromonitor International, global organic chocolate sales were estimated to have increased from a value of US\$ 171 million in 2002 to US\$ 304 million in 2005. The global cocoa and chocolate market size was valued at USD 44.35 billion in 2019 and is projected to reach USD 61.34 billion by 2027, exhibiting a CAGR of 4.4% during the forecast period.

(<https://www.fortunebusinessinsights.com/industry-reports/cocoa-and-chocolate-market-100075>). It is therefore not a surprise to the chocolate and cocoa industry as Ghana and Ivory Coast currently dictate and determine the price of cocoa which in effect suggest the cost of chocolate in the world market. (<https://www.africanews.com/2019/06/13/ghana-ivory-coast-demand-fair-price-suspend-sale-of-cocoa-beans/>).

COFFEE

One of the commodities that generate export revenue for many Africa countries is coffee. It is estimated that, coffee from the African continent accounts for around 12% of the world's production of coffee beans and within this Ethiopia and Uganda combined account for approximately 62% of the total output from Africa. Ethiopia is therefore regarded as the birthplace of coffee in Africa as it is credited as the haven where Arabica coffee variety originated. (Source: World Economic Forum - Which African Countries Produce the Most Coffee). While Ethiopia is currently ranked as the world's sixth largest coffee producer, Uganda was also ranked as the eighth on the list of global coffee production. In 2017/18, coffee production in Ethiopia reached 416,580 tonnes and the USDA anticipated that Ethiopia will produce 426,000 tonnes of coffee in 2018/19 and export 239,000 tonnes. Also in 2017, Uganda produced 216,000 and 45,000 tonnes of robusta and arabica coffee, respectively, and exported 270,000 tonnes in total. In 2017, the USDA forecasted the Uganda's 2018/19 total coffee production to reach over 287,000 tonnes, a 10 percent increase from 2017 (<https://gro-intelligence.com/insights/articles/african-coffee-production-opportunities-and-challenges>).

Countries including Burundi, Kenya, Rwanda, Malawi, Tanzania, Zambia and more recently the Democratic Republic of Congo also contribute their quota to the coffee industry in the world.



Source: <https://assets.weforum.org/wp-content/uploads/2015/10/151021-Africa-coffee-production-consumption-MG.jpg>

CASHEW

Cashew is also one of the cash crops that are widely produced and exported from Africa to other part of the world. Over 2.5 million African farmers currently grow about 57% of the world's cashews with the cumulative yield of more than 1.6 million tonnes of raw cashew nut (RCN) in 2015. Africa is now the world's largest producer of Raw Cashew Nut and it is estimated that a 25% increase in raw cashew nut processing within Africa would generate more than US\$100 million in household income, improving the lives of many families in rural areas. Cote d'Ivoire Raw Cashew Nut (RCN) production increases by around 10% per year which translate to an annual production volume of more than 750,000 metric tons (MT) in 2018. Côte d'Ivoire is by far the largest African cashew producer and the largest worldwide (<https://www.comcashew.org/countries>). Other Africa countries that produce cashew are; Benin, Burkina Faso, Ghana and Mozambique.

Aside cashew being used as food, it is also used for medicinal purpose, its nut shell is a source of biofuels and produces oil for making paints.(<https://www.selinawamucii.com/cashew-nuts-industry-overview-in-africa/>).



Sources; <https://www.giz.de/en/workingwithgiz/8410.html>

CONTRIBUTION OF THE RESEARCH

It clarifies the various spotlighting investment opportunities in Africa as the research help provides information on the numerous rich natural resources in Africa and the exact countries these resources are found in abundance for viable investment. It therefore give clear picture on Africa's contribution to the various industries in the world as export of these unprocessed natural resources serve as feedstock for numerous industries around the world. The paper also serves as a basis for future research on topics related to this study.

CONCLUSION

It must be emphasized that, Africa continent is endowed with abundant natural resources such as gold, diamond, oil and gas, bauxite, cocoa, coffee, cashew etc and chunk of these resources are exported in its raw state as there are few manufacturing industries in Africa. This therefore reveal to Africa leaders to implement good policies that will ensure industrialization with the aim of processing it's natural resources into finish goods that will generate high revenue for development. Africa is therefore a haven of natural resource and investors across the globe must start exploiting the opportunities in Africa.

BIBLIOGRAPHY

- [1]. <https://www.aljazeera.com/news/2018/2/20/mapping-africas-natural-resources>
- [2]. https://www.researchgate.net/publication/341788084_Africa_in_Global_Economy
- [3]. <https://www.nationalgeographic.org/encyclopedia/africa-resources/>
- [4]. <https://www.africanews.com/2019/06/13/ghana-ivory-coast-demand-fair-price-suspend-sale-of-cocoa-beans/>
- [5]. <https://pebbleandpine.co.uk/pages/guide-african-coffee>
- [6]. <https://www.weforum.org/agenda/2020/02/africa-global-growth-economics-worldwide-gdp/>
- [7]. <https://www.mofep.gov.gh/press-release/2019-02-14/ghana%27s-oil-production-estimated-to-go-up-to-500%2C000-Barrels-per-day-by-2024>
- [8]. <https://www.nsenergybusiness.com/news/top-five-diamond-mining-africa/>
- [9]. [https://www.alcircle.com/news/top-bauxite-exporters-from-africa-guinea-remains-the-leading-bauxite-supplier-while-china-drives-the-export-31764#:~:text=The%20African%20nation%20stands%20to,million%20and%20485%20million%20respectively\).](https://www.alcircle.com/news/top-bauxite-exporters-from-africa-guinea-remains-the-leading-bauxite-supplier-while-china-drives-the-export-31764#:~:text=The%20African%20nation%20stands%20to,million%20and%20485%20million%20respectively).)
- [10]. <https://www.investopedia.com/articles/investing/101515/biggest-oil-producers-africa.asp#:~:text=The%20African%20continent%20is%20home,about%209.6%25%20of%20world%20output.>
- [11]. <https://www.eia.gov/international/data/world/petroleum-and-other-liquids/annual-petroleum-and-other-liquids-production>
- [12]. <https://www.pwc.co.za/en/assets/pdf/africa-oil-and-gas-review-2018.pdf>
- [13]. <https://gro-intelligence.com/insights/articles/african-coffee-production-opportunities-and-challenges>
- [14]. <https://assets.weforum.org/wp-content/uploads/2015/10/151021-Africa-coffee-production-consumption-MG.jpg>
- [15]. <https://www.africancashewalliance.com/en/aboutus#:~:text=Over%202.5%20million%20African%20farmers,57%25%20of%20the%20world's%20cashews.&text=With%20a%20yield%20of%20more,2006%20to%20105%2C700%20in%202015.>

- [16]. <https://www.selinawamucii.com/cashew-nuts-industry-overview-in-africa/>
- [17]. <https://www.giz.de/en/workingwithgiz/8410.html>
- [18]. <http://countrystudies.us/ghana/85.htm>
- [19]. Kalu K. (2018) Explaining Africa's Underdevelopment. In: Foreign Aid and the Future of Africa. African Histories and Modernities. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-78987-3_9
- [20]. U.S. Energy Information Administration. "Petroleum and Other Liquids," Accessed June 6, 2020.