



AFREC

African Energy
Commission

Africa Energy Balances 2024

AFRICAN ENERGY COMMISSION





AFREC
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Commission

**Securing Africa's
Energy Future**

Africa Energy Balance 2024

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Title: Africa Energy Balances
Available languages: English and French
Language: English

ISBN: 978 9931 9593-9-7

 **African Energy Commission-AFREC**
 **@AU_AFREC**
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Department of Infrastructure and Energy
African Union
Algiers, Algeria
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First printing 2020

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FOREWORD

We are pleased to present the 2022 energy balance for African countries, providing an in-depth analysis of energy production, transformation, and consumption across our continent. This publication marks a significant step forward, shedding light on the opportunities and challenges within the African energy sector and demonstrating our commitment to transparent, inclusive, and sustainable energy governance.

Energy, as a driving force of development, is essential for economic progress, improving living conditions, and social transformation in Africa. With abundant natural resources, the continent has immense potential to become a leading player in the global energy sector. However, substantial challenges remain: limited access to infrastructure, supply disparities, and the complexity of a necessary energy transition in the era of climate change.

In this context, the African Union's Agenda 2063 serves as a crucial roadmap for the continent's energy development. By promoting inclusive and sustainable economic growth, this Agenda places energy sector transformation at its core, thereby supporting the United Nations Sustainable Development Goals (SDGs), especially SDG 7, which aims to ensure universal access to affordable, reliable, sustainable, and modern energy.

This report is the result of rigorous work in collecting, analyzing, and interpreting reliable and up-to-date data on the production, consumption, and energy trends of our member states. It provides a valuable foundation for understanding the current African energy landscape and guiding strategic, informed decision-making.

Our goal is to make this publication a tool for dialogue, learning, and ongoing improvement for all stakeholders—governments, businesses, regulatory bodies, international partners, and citizens. By harnessing the expertise of the African Energy Commission and collaborating closely with member states, we aim to make energy accessible to more Africans while fostering green and resilient economic growth.

I am confident that this publication will serve as a solid foundation for the development of innovative energy policies and initiatives that are tailored to African realities. May this shared vision inspire us to build a future where each African nation has the energy resources needed to thrive and contribute fully to the global economy.

Together, let us work toward an energy-autonomous, sustainable, and prosperous Africa.

RASHID Ali Abdallah
Executive Director, African Energy Commission

TABLE OF CONTENTS

FOREWORD	3	Libya	73
ABBREVIATIONS AND ACRONYMS	5	Madagascar	75
UNIT ABBREVIATIONS	6	Malawi	77
LA COMMISSION AFRICAINE DE L'ENERGIE (AFREC)	7	Mali	79
INTRODUCTION	10	Mauritania	81
AFRICAN INDICATORS AND ENERGY BALANCES	14	Mauritius	83
Africa	15	Morocco	85
Algeria	17	Mozambique	87
Angola	19	Namibia	89
Benin	21	Niger	91
Botswana	23	Nigeria	93
Burkina Faso	25	Rwanda	95
Burundi	27	Sao Tome and Principe	97
Cape Verde	29	Senegal	99
Cameroon	31	Seychelles	101
Central African Republic	33	Sierra Leone	103
Chad	35	Somalia	105
Comoros	37	South Africa	107
Congo Republic	39	South Sudan	109
Cote d'Ivoire	41	Sudan	111
Democratic Republic of the Congo	43	Tanzania	113
Djibouti	45	Togo	115
Egypt	47	Tunisia	117
Equatorial Guinea	49	Uganda	119
Eritrea	51	Western Sahara	121
Eswatini	53	Zambia	123
Ethiopia	55	Zimbabwe	125
Gabon	57	GLOSSARY	128
Gambia	59	CONVERSION FACTORS	132
Ghana	61	NOTES	133
Guinea	63		
Guinea-Bissau	65		
Kenya	67		
Lesotho	69		
Liberia	71		

ABBREVIATIONS AND ACRONYMS

-	Not Applicable
AEIS	Africa Energy Information System
AfDB	African Development Bank
AFREC	African Energy Commission
AU	African Union
AUC	African Union Commission
BKB	Brown Coal Briquettes
CHP	Combined Heat and Power
CTL	Coal-to-Liquid
DDP	Deep De-carbonization Pathways
FAO	Food and Agriculture Organization of the United nations
GCV	Gross Calorific Value
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GTL	Gas-to-Liquid
HHV	High Heating Value
IDDRI	Institute for Sustainable Development and International Relations
IEA	International Energy Agency
ISIC	International Standard Industrial Classification
LPG	Liquefied Petroleum Gas
LHV	Low Heating Value
NGL	Natural Gas Liquids
NCV	Net Calorific Value
OAU	Organisation of African Unity
PPP	Purchasing Power Parity
SIEC	Standard International Energy Product Classification
STC	Specialized Technical Committee
TTIIET	Transcontinental and Interregional Infrastructure, Energy and Tourism
TFC	Total Final Consumption
TPES	Total Primary Energy Supply
UN	United Nations

UNIT ABBREVIATIONS

bcm	Billion cubic metres
Gcal	Gigacalorie
GCV	Gross calorific value
GW	Gigawatt
GWh	Gigawatt hour
kb/cd	Thousand barrels per calendar day
kcal	Kilocalorie
kg	Kilogram
kJ	Kilojoule
kWh	Kilowatt hour
MBtu	Million British thermal units
Mt	Million tons
Mtoe	Million tons of oil equivalent
t	Metric ton=tonne=1000kg
kt	Kilotonnes
TJ	Tera joule
toe	Ton of oil equivalent=10⁷ kcal
TWh	Terrawatt hour

THE AFRICAN ENERGY COMMISSION (AFREC)

The African Energy Commission (AFREC) is a specialized agency of the African Union (AU), under the Department of Infrastructure and Energy of the African Union Commission (AUC) that is in charge of coordinating, harmonizing, protecting, conserving, developing, rational exploitation, commercializing and integrating energy resources in Africa. AFREC was created by a Decision of the 37th Summit of the Organisation of African Unity (OAU) Heads of States and Governments which was held in Lusaka, Zambia, on 11th July 2001 and was launched officially by the AU Ministers in charge of energy in 2008 in Algiers, Algeria.

AFREC's mandate include developing policies, strategies, research, and plans based on Member States (MS), subregional, regional, and continental development priorities and recommend their implementation. AFREC is also responsible for designing, creating, and updating an energy continental database and facilitates rapid dissemination of information among MS, sub-regional, regional, and continental institutions.

The agency also provides technical support, mobilize financial, provides capacity building to the MS, regional and continental institutions and addresses other energy related issues in African as stated in AFREC Convention.

STRATEGIC PILLARS

The energy sector in Africa still faces huge challenges that include low generation capacity and efficiency, high costs, unstable and unreliable

energy supplies, and low access rates, amongst others.

These challenges have adversely affected socio-economic development on the continent. With the demand for modern energy consistently on the rise, there is a need to develop huge energy infrastructure at the continental, regional and national levels to meet current and future demands. The development of the energy infrastructure and electricity market at each of the three levels is recognized as one of the key strategies to address the energy challenges.

In the 2nd Ordinary Session of the African Union (AU) Specialized Technical Committee on Transport, Transcontinental and Interregional Infrastructure and Energy (STC TTIE, 18 April 2019), the Ministers requested the African Energy Commission (AFREC) to implement following strategic pillars:

- Bioenergy Monitoring and Reporting in Africa
- African Energy Transition
- African Energy Information System
- African Energy Efficiency
- Oil and Natural Gas

During the 3rd Ordinary Session of the African Union (AU) Specialized Technical Committee on Transport, Transcontinental and Interregional Infrastructure and Energy (STC TTIE, 30 June 2021), AFREC reported on the status of implementation of the approved and presented an additional strategic pillar on Energy Sector Capacity Building which was approved by the STC.

AFREC'S PILLARS

African Energy Information System (AEIS) Programme
Bioenergy Programme
Energy Efficiency Programme
Oil and Gas Programme
Energy Transition Programme
Capacity Building programme

1- The bioenergy program provides sustainability indicators for bioenergy and related Food and Agriculture Organization (FAO) best practices by providing technical support and capacity building to relevant institutions of the beneficiary countries to measure/collect, analyze and monitor bioenergy data. This enables them to track the environmental, social, and economic impacts of their bioenergy production and consumption, particularly the actual contribution to GHG emission reductions by replacing fossil fuel and traditional biomass use while harnessing socio-economic co-benefits.

2- African energy efficiency program was developed with the aim of significantly reducing the final energy demand and pollution emissions across the continent and to provide increased electricity access, competitiveness, energy security and economic development by supporting the unlocking of some \$175 Billion in available savings by 2030.

3- AFREC's programme on Oil and Natural Gas focuses on promoting the Africa domestic oil and Gas market in collaboration with institutions and key African crude oil producers, net oil products consumers, current owners of unused and underused refineries, and regional and national authorities. The programme concentrates on the following:

- Create African Domestic Market to enable cross-border trade opportunity for crude oil, oil products and natural gas.
- Revisit the existing oil and gas policies and laws with a view to strengthen policies targeted at oil and gas market.

- Develop policies, strategies and action plans for expansion of refinery production capacity in Africa.

4- In 2019, AFREC evaluated the African Energy Information System (AEIS) and came up with a holistic improvement plan to address the challenges including the information technology infrastructure requirements, procedural mechanisms & information flow processing and finally enhancement and expansion of the energy data and indicators collection including monitoring of the UN Sustainable Development Goals (SDG7). The enhancement entailed the following :

- Improving the existing questionnaires and developing new ones (focus on energy efficiency for all sectors (transport, Industry, residential and commercial services), energy prices and taxes, CO2 emission, SDG7 tracking, Power Plants capacity installed, etc.), new flows, in multiple AU languages and in alignment with International Recommendation for Energy Statistics (IRES), definitions and best practices.
- Improving data collection and submission mechanism by adopting online data collection system.
- Developing a data visualization tool, data dissemination & reporting system.
- Capacity building for Member States through regional and national workshops.

5- The African Energy Sector Transition program (AFRETRAP) intends to accelerate the African Energy Transition and transformation required in the continent to foster jointly inclusive economic growth, wealth creation, poverty eradication, and

inequality reduction in a sustainable climate compatible development manner. AFRETRAP is designed to catalyze the African energy transition, informed by a clear and common understanding of the transformations in the energy sector needed in the short, medium, and long-term to achieve the intertwined visions of Agenda 2063, the SDGs, and the Paris Agreement. The program will identify frameworks and show how they can support the development of sectorally and technologically detailed, policy-relevant, and country-driven strategies consistent with national development agendas.

6- The African Energy Sector capacity building aims in identifying skills gap in energy sector, and design accordingly a training module that will improve the capacity of policymakers, energy planners, regulators and experts from AU Member States, RECs, regional power pools, centers for renewable energy and energy efficiency, and other relevant stakeholders in the African energy sector. This programme shall enhance and bridge the skills gap in the energy sector in the Member States. The programme will focus on the following topics:

- Policy and regulatory frameworks for energy sector
- Solar Photovoltaics and Hybrid systems
- Financing of small and large – scale photovoltaic and wind power plants
- Entrepreneurship in Renewable Energy and Energy investments
- Integration of renewables into the national grid
- Mini-grid models
- Etc.

INTRODUCTION

OVERVIEW

In 2022, Africa recorded a primary energy supply of 746,283 ktoe, with an energy dependency rate of 133%. Biomass was the main source, accounting for 47.9% of the total, while oil, petroleum products, coal, and natural gas contributed almost equally to the rest of the energy needs. Electricity, on the other hand, accounted for a relatively modest share of 3%.

Refineries demonstrated a high efficiency of 91.07% in converting crude oil into petroleum products, while thermal power plants achieved an average efficiency of 39% in converting fuels into electricity. In terms of energy consumption, biomass was the primary energy source for households (54.41%), followed by petroleum products, which met transportation needs (26.27%). Electricity accounted

for 9.37% of consumption, natural gas 7.38%, and coal 2.57%.

Africa faces significant challenges in diversifying its energy sources and improving access to electricity. Promoting renewable energy and enhancing energy efficiency will be essential to ensure sustainable development.

1. Primary energy production

In 2022, primary energy production was largely dominated by crude oil, which accounted for 32.29% of the total production. However, renewable energy, particularly biomass, played a crucial role, representing 31.48% of production. These figures highlight the growing importance of renewable energy in Africa's energy landscape. Primary energy production is illustrated in Figure1

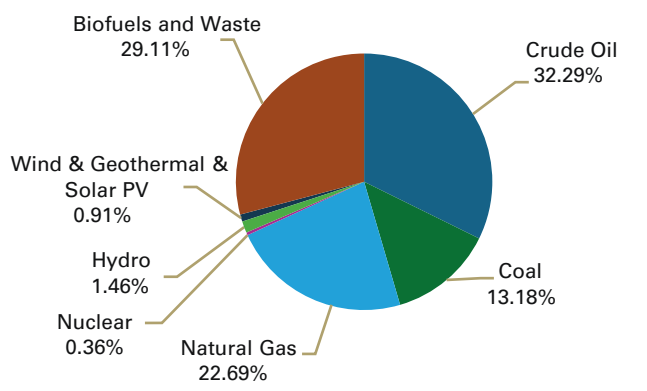


Figure 1. - Primary energy Production

2. Energy supply

In 2022, total primary energy supply amounted to 746,283 kilotons of oil equivalent (ktoe), corresponding to an energy independence rate of 133%. Biomass was the main source of supply, accounting for 47.9% of the total. Crude oil, petroleum products, coal, and natural gas shared the remaining supply almost equally. Electricity accounted for a relatively small share, at only 3%. It is important to note that this analysis does not consider secondary electricity, focusing solely on primary electricity exchanges in accordance with the methodology for accounting energy flow.

These figures highlight Africa's continued reliance on biomass and underscore the need to diversify the energy mix by promoting renewable sources. The Total Energy Supply is illustrated in Figure 2.

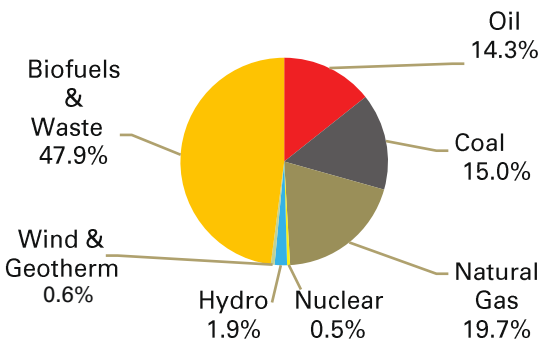


Figure 2. - Total Primary Energy Supply

3. Transformation

The efficiency of converting crude oil into petroleum products in refineries is 91.07%. In contrast, the average efficiency of converting fuels into electricity in thermal power plants is 39%.

Of the 952.9 TWh of electricity produced in 2022, thermal sources accounted for a predominant share, representing 75.34% of total production. Coal and natural gas are the primary fuels used for thermal electricity generation.

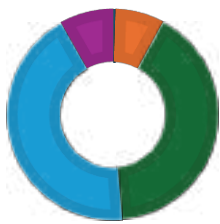
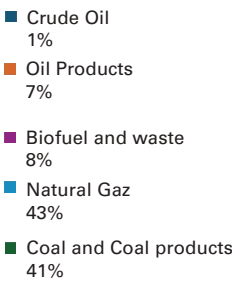


Figure 3.1 - Fuel used in thermal power plants to generate electricity

In terms of primary electricity production, hydropower is dominant, accounting for 17.72% of total production. Wind, geothermal, and solar collectively represent 5.31% of production, while nuclear energy accounts for the smallest share at 1.43%.

These figures highlight the importance of thermal energy in Africa's electricity production, primarily based on coal and natural gas. However, hydropower, along with wind, geothermal, and solar energy, demonstrates growing potential in the primary electricity production landscape.

Nuclear energy remains a relatively limited source in the region.

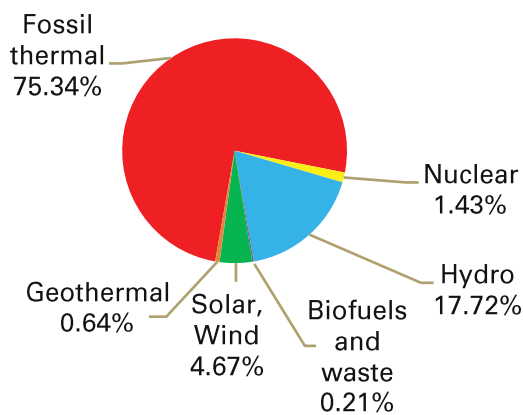


Figure 3.2 - Electricity generation by energy source

4. Final Consumption

4.1. Consumption by fuel

In 2022, total energy consumption in Africa reached 504 955 kilotons of oil equivalent (ktoe) to meet the energy needs of various activities. Biomass, mainly in the form of firewood and charcoal, was the predominant energy source, accounting for 54.41% of total consumption, primarily serving household energy needs. Petroleum products ranked second, representing 26.27% of consumption, primarily used in the transport sector. Electricity accounted for 9.37% of consumption, followed by natural gas at 8% and coal at 3%.

These figures highlight Africa's heavy reliance on biomass for domestic energy needs and the significant role of petroleum products in the transport sector.

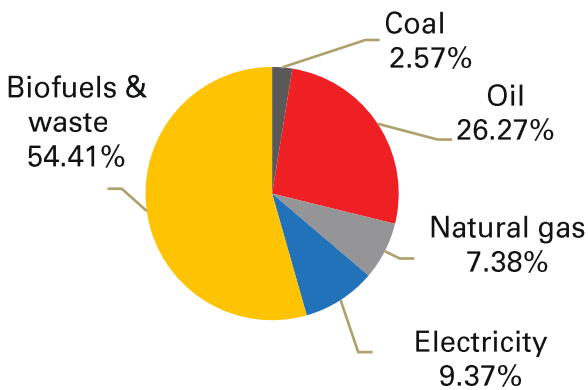


Figure 4.1 - Final consumption by fuel

4.2. Oil products consumption

Petroleum product consumption in Africa is largely dominated by the transport sector, which accounts for a significant 71.14% of total consumption. Next, industry and households consume 11.19% and 6.85% of petroleum products, respectively. Other sectors, such as commercial services, public services, and unspecified sectors, make up about 10.82%.

This distribution highlights the critical importance of the transport sector in the demand for petroleum products in Africa, followed by industry, households, and agriculture, all of which also contribute significantly to the consumption of these products.

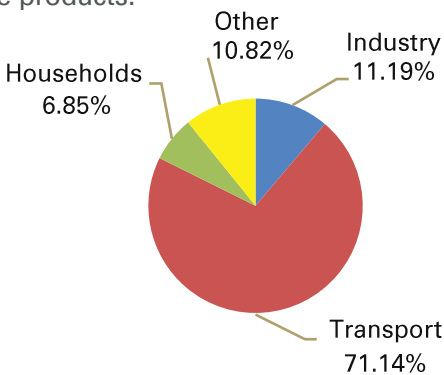


Figure 4.2 - Oil product final consumption

4.3. Electricity consumption

In 2022, electricity consumption was primarily distributed across three major sectors. Industry accounted for the largest share with 36.98%, followed by households at 35.51%, and services at around 20.75%. These sectors cover a wide range of activities, from industrial production to domestic consumption and professional services.

Other sectors such as agriculture, transport, and various unspecified sectors together contributed 6.76% of final electricity consumption in Africa.

While this share may seem relatively small compared to the three main sectors, it remains important for the overall development of the economy and society in Africa.

It is crucial to monitor and optimize electricity consumption across these various sectors to ensure efficient energy use and promote sustainable and balanced development across the continent.

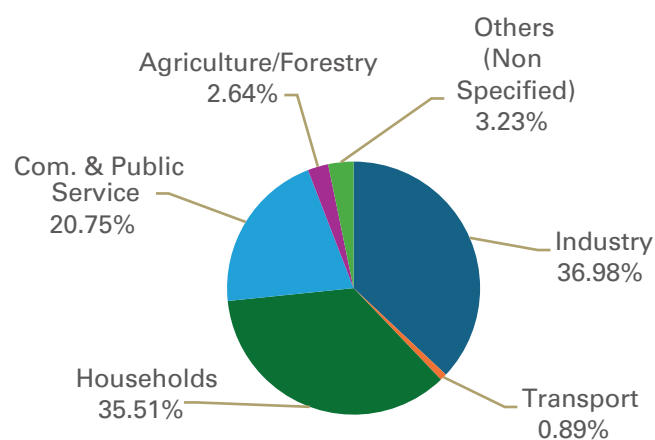


Figure 4.3 - Electricity consumption by sector

4.4. Total final consumption by sector

In 2022, energy consumption in Africa was primarily distributed across four sectors. Households accounted for the largest share at 43% of total final consumption, followed by transport at 24%, industry at 17%, and services at 10%. Other sectors, such as agriculture, various unspecified sectors, and non-energy uses, together contributed 6% to the final energy consumption in Africa.

This sectoral distribution highlights the importance of household consumption and underscores the need for developing balanced energy policies to support sustainable development and energy efficiency across all economic sectors on the continent.

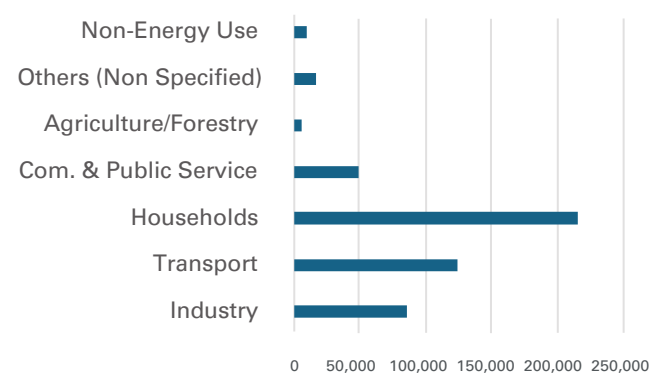


Figure 4.4 - Total final consumption by sector

4.5. Consumption in Households

The analysis of household energy consumption reveals that biomass constitutes the bulk of the supply, accounting for 77.09% of total consumption. Biomass includes renewable energy sources such as wood, charcoal, crop and wood residues, which are primarily used for cooking and heating in African households.

Regarding clean energy with limited access, electricity represents 9.82% of household consumption. This indicates that household electrification remains a challenge in some regions of Africa, where access to reliable and affordable electricity is still limited. Additionally, petroleum products account for 6.86% of household energy consumption, while natural gas represents 6.16%. These figures suggest that despite the growth of cleaner energy sources, fossil fuels continue to play a significant role in domestic energy consumption in Africa.

Moreover, coal is also used in households, but with a relatively small share of 0.07%. Coal is generally less widespread in African households due to its negative environmental impacts and the limited availability of this resource on the continent.

This distribution of household energy consumption highlights the importance of developing inclusive and sustainable energy policies to ensure equitable access to clean and affordable energy, as well as to promote energy efficiency in African households. Such efforts will contribute to improving the quality of life for populations and supporting the economic and social development of Africa as a whole.

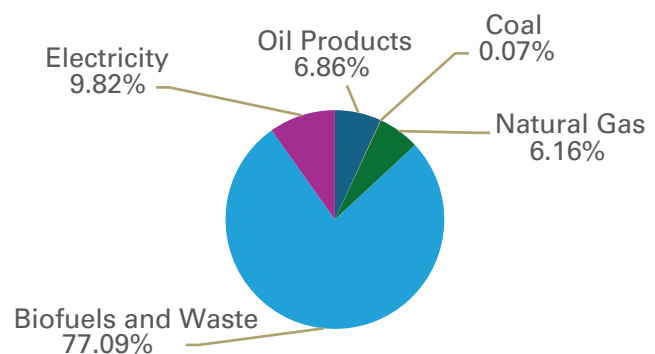


Figure 4.5 - Consumption in Households



AFRICAN INDICATORS AND ENERGY BALANCES

AFRICAN INDICATORS AND ENERGY BALANCES



Africa
Indicators

Figure 1. - Total Primary Energy Supply (ktoe)

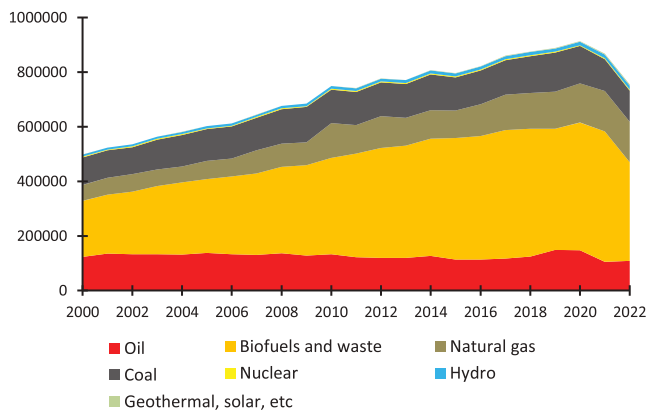


Figure 2. - Total Final Consumption (ktoe)

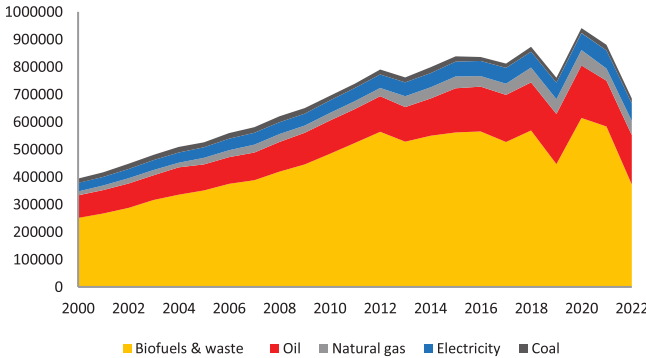


Figure 3. - Electricity Generation by Source (GWh)

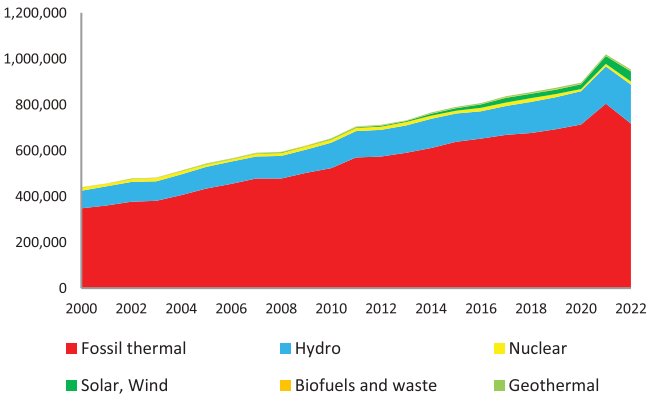


Figure 4. - Refinery Production by product (kt)

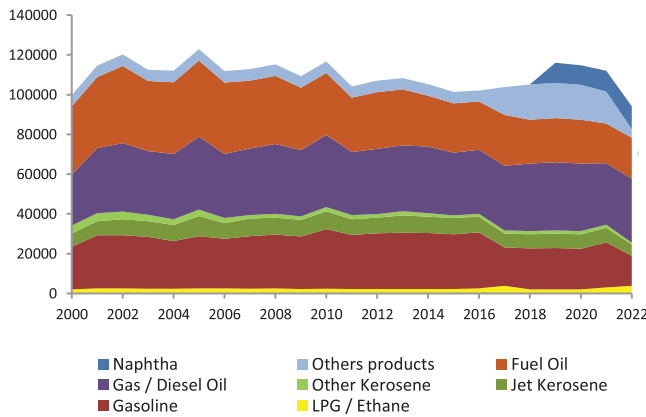


Figure 5. – Consumption of firewood

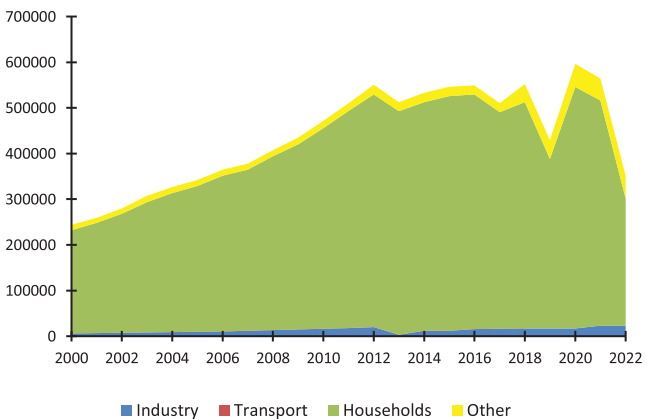
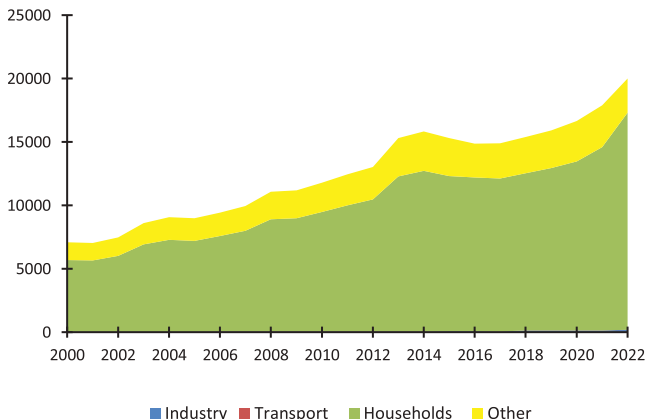


Figure 6. – Consumption of charcoal





Thousand Tonnes of Oil Equivalent (ktoe)		Crude Oil ¹	Oil Products	Coal / peat ²	Natural Gas	Nuclear	Hydro	Wind & Geothermal & Solar PV	Biofuels & Waste	Electricity	Total of all energy sources
PRIMARY SUPPLY	Production	321 615	-	13 1257	226 041	3 541	14 521	9042	289980	-	995 998
	Imports (+)	16 611	127 364	9 302	8 349	-	-	-	-	1821	16 3447
	Exports (-)	-238 328	-38 974	-46 339	-85 675	-	-	-	-	-1838	-411 154
	Intl. Marine Bunkers (-)	-	-8 147	-	-	-	-	-	-	-	-8 147
	Intl. Aviation Bunkers (-)	-	-6 775	-	-	-	-	-	-	-	-6 775
	Stock Changes	-	5 777	-	46	-	-	-	-	-	12 914
	TPES ³	106 988	79245	1203.07	148 762	3 541	14 521	9 042	289 980	-17	746 283
Transfers		-10 215	4 153	-	-	-	-	-	-	-	-6 063
Statistical difference		-2 770	19 151	17 709	-6 605	-	-	-	-617	-5 746	21 121
TRANSFORMATION	Transformation	-94 003	72 240	-82 161	-75 348	-3 541	-14 521	-9 042	-163 360	81 9324	-287 805
	Electricity Producers	-857	-12 590	-69 320	-73 399	-3 541	-14 521	-9 042	-13 884	81 932	-115 223
	Petroleum Refineries	-93 145	84 830	-	-	-	-	-	-	18128.34	-8 315
	Charcoal Plants	-	-	-	-	-	-	-	-149 476	-	-149 476
	Gas-To-Liquids	-	-	-	-	-	-	-	-	-	-
	Coal-To-Liquids	-	-	-	-	-	-	-	-	-	-
	Blast Furnaces	-	-	-	-	-	-	-	-	-	-
	Other Transformation	-	-	-	-	-	-	-	-	-	-14 791
	Energy Industry Own Use	-	-553	-15 199	-15 1941	-	-	-	-	-5 554	-36 500
Losses		-	-66	0.00	-1 107	-	-	-	-	-11115	-12 288
FINAL CONSUMPTION	TFC ⁴	-	174 170	14 569	50 506	-	-	-	206 210	59 500	504 955
	Industry	-	19 066	12 415	20 564	-	-	-	11 356	22 002	85 404
	Transport	-	12 1617	7	1 704	-	-	-	-	528	123 856
	Households	-	14 768	149	13 245	-	-	-	165 882	21 129	215 172
	Com. & Public Service	-	4 631	722	2 249	-	-	-	28 972	12 346	48 920
	Agriculture/Forestry	-	3 323	0.00	750	-	-	-	-	1 573	5 646
	Others (Non Specified)	-	1 288	1 277	11 995	-	-	-	-	1 922	16 482
	Non-Energy Use	-	9 477	0.00	0.00	-	-	-	-	-	9 477

1. Includes crude oil, NGL, refinery feedstock, additives and other hydrocarbons
2. Includes steam coal, coking coal, lignite and recovered coal
3. Total Primary Energy Supply
4. Total Final Consumption

INDICATORS AND ENERGY BALANCES



People’s Democratic Republic of Algeria Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

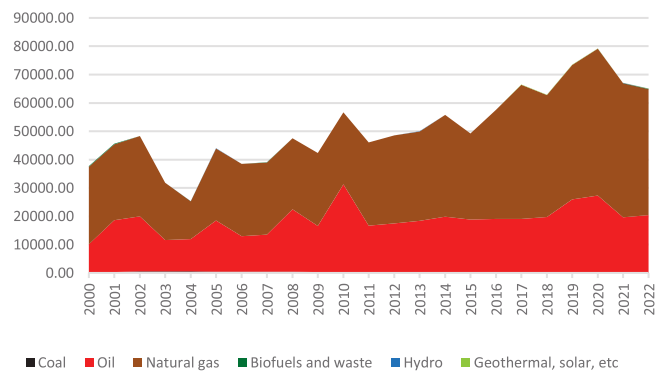


Figure 3.2. - Total Final Consumption (ktoe)

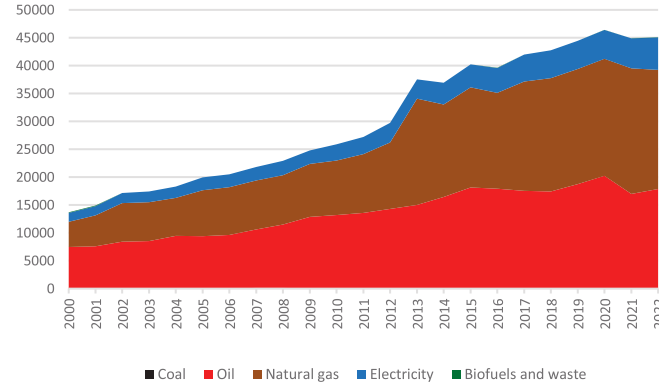


Figure 3.3. - Electricity Generation by Source (GWh)

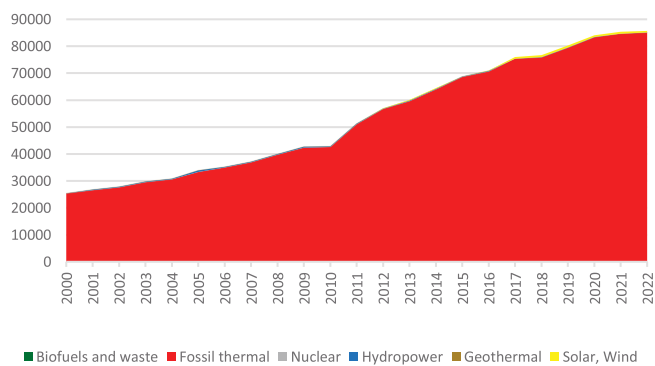


Figure 3.4. - Fuel Shares of Total Final Consumption

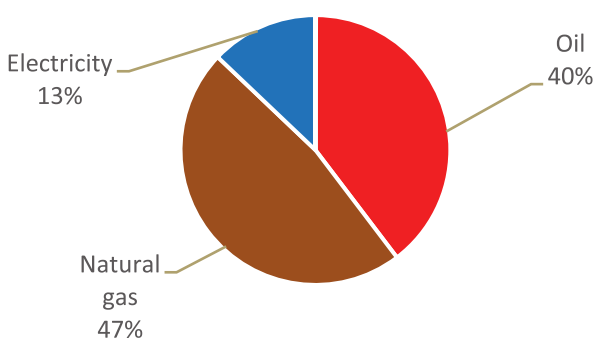


Figure 3.5. - Electricity Consumption by Sector

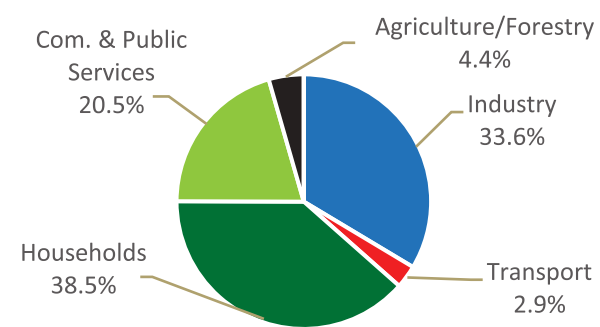
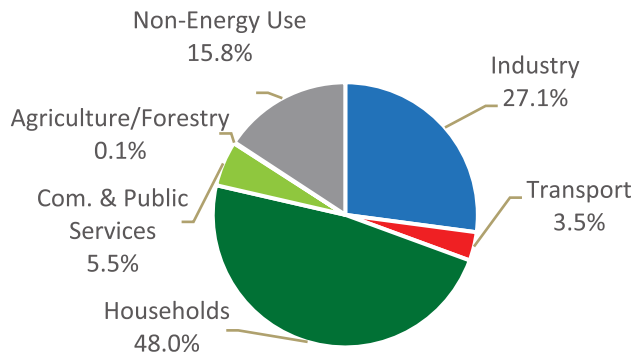


Figure 3.6. - Natural Gas Consumption by Sector





People's Democratic Republic of Algeria

Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Coal / peat	Crude oil	Oil Products	Natural Gas	Biofuels & Waste	Hydro	Solar	Wind	Electricity	Total of all energy sources
Production	-	63447,90	-	86216,01	3 541	1,41	55,78	1,37	-	149722,46
Imports (+)	3,95	-	638,74	-	-	-	-	-	15,58	658,27
Exports (-)	-	-22112,24	-21227,01	-41762,80	-	-	-	-	-236,75	-85338,80
Intl. Marine Bunkers (-)	-	-	-190,23	-	-	-	-	-	-	-190,23
Intl. Aviation Bunkers (-)	-	-	-227,15	-	-	-	-	-	-	-227,15
Stock Changes (+ draw, - build)	-0,11	-141,74	280,93	-	-	-	-	-	-	139,09
TOTAL PRIMARY ENERGY SUPPLY	3,85	41193,92	-20724,71	44453,21	3 541	1,41	55,78	1,37	-221,17	64763,65
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-	-	-
Statistical difference	0,29	9036,59	-8455,94	550,33	-	-	-	-	25,55	1156,81
TRANSFORMATION Inputs (-) and Outputs (+)	-3,56	-31531,99	-30330,84	-19452,98	-3 541	-1,41	-55,78	-1,37	7844,47	-12871,76
Electricity plants	-	-	-222,06	-19452,98	-3 541	-1,41	-55,78	-1,37	7844,47	-11889,12
CHP Plants	-	-	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-	-
Blast furnaces	0,39	-	-	-	-	-	-	-	-	0,39
Oil Refineries	-	-31531,99	29990,19	-	-	-	-	-	-	-1541,80
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-	-	-	-	-
Transformation not elsewhere specified	-3,95	-	562,72	-	-	-	-	-	-	558,76
Energy Sector Own Use	-	625,35	225,56	2816,39	-	-	-	-	1038,86	4706,16
Losses	-	-	3,55	267,59	-	-	-	-	754,44	1025,57
FINAL CONSUMPTION	-	-	17832,96	21365,93	-	-	-	-	5804,46	45003,35
Industry	-	-	636,40	5790,99	-	-	-	-	1949,62	8377,00
Transport	-	-	14458,44	745,85	-	-	-	-	170,29	15374,58
Households	-	-	1472,84	10254,55	-	-	-	-	2236,61	13964,00
Com. & Public Service	-	-	540,27	1175,19	-	-	-	-	1189,73	2905,19
Agriculture/Forestry	-	-	39,61	30,49	-	-	-	-	258,21	328,32
Others (Non Specified)	-	-	-	-	-	-	-	-	-	-
Non-Energy Use	-	-	39,61	3368,86	-	-	-	-	-	4054,26

INDICATORS AND ENERGY BALANCES

Angola
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

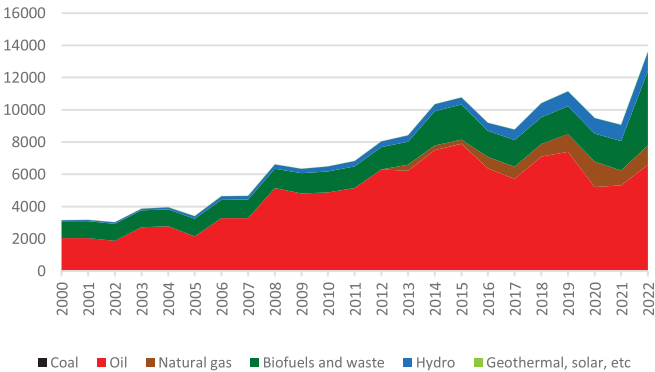


Figure 3.2. - Total Final Consumption (ktoe)

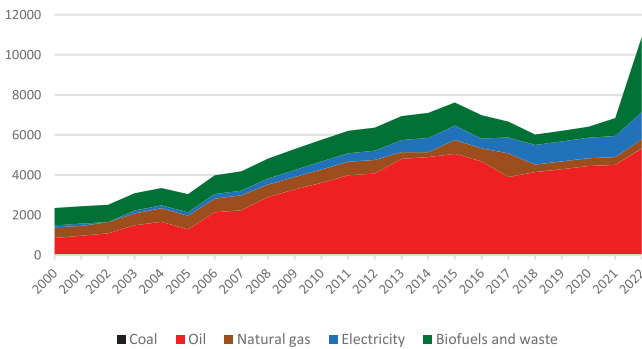


Figure 3.1. - Total Primary Energy Supply (ktoe)

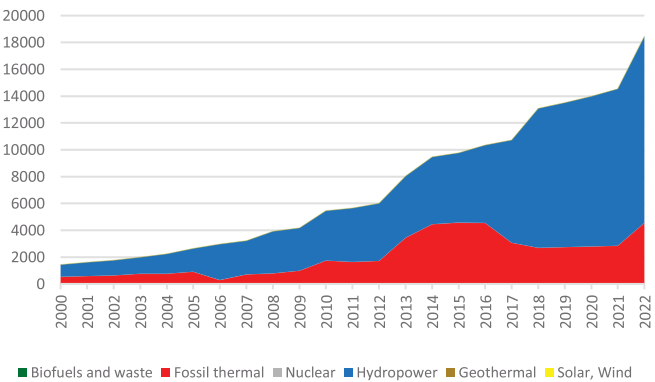


Figure 3.4. - Fuel Shares of Total Final Consumption

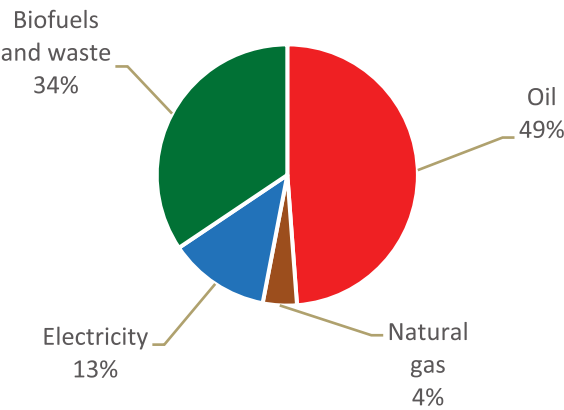


Figure 3.5. - Electricity Consumption by Sector

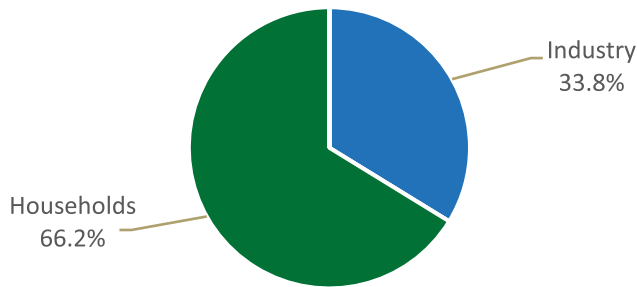
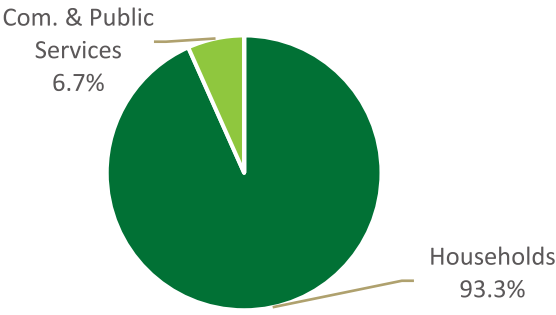


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Natural Gas	Biofuels and waste	Hydro	Electricity	Total of all energy sources
Production	60376,46	-	5463,11	4624,15	1195,34	-	71659,06
Imports (+)	-	3265,29	-	-	-	-	3265,29
Exports (-)	56369,07	-750,17	-4277,04	-	-	-	-61396,29
International Marine Bunkers (-)	-	-351,32	-	-	-	-	-351,32
International Aviation Bunkers (-)	-	-112,53	-	-	-	-	-112,53
Stock Changes (+ draw, - build)	-52,54	591,58	-	-	-	-	539,04
TOTAL PRIMARY ENERGY SUPPLY	3954,85	2642,84	1186,07	4624,15	1195,34	-	13603,26
Transfers : Origin (-) and Destination (+)	-1665,51	1782,32	-	-	-	-	-
Statistical Difference	-0,80	10,98	0,05	94,67	-	0,09	243,46
TRANSFORMATION Inputs (-) and Outputs (+)	-2290,14	970,20	-354,31	-777,95	-1195,34	1587,20	-2060,35
Electricity plants	-	-1149,95	-354,31	-	-1195,34	1587,20	-1112,40
CHP Plants	-	-	-	-111,02	-	14,35	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-2290,14	2120,15	-	-	-	-	-170,00
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-777,95	-	-	-777,95
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	62,63	371,90	-	-	39,06	473,59
Losses	-	-	-	-	-	178,76	178,76
FINAL CONSUMPTION	-	5321,77	459,82	3751,53	-	1369,28	10902,39
Industry	-	206,77	459,82	-	-	462,32	1128,91
Transport	-	2464,88	32,90	-	-	-	2464,88
Households	-	1858,27	-	3501,24	-	906,96	6266,46
Commercial and public services	-	579,98	-	250,29	-	-	830,27
Agriculture, Forestry and Fishing	-	4,78	-	-	-	-	4,78
Non-specified (HH, Com. & PS., Agri.)	-	7,65	-	-	-	-	7,65
Non-Energy Use	-	199,44	-	-	-	-	199,44

INDICATORS AND ENERGY BALANCES

Benin
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

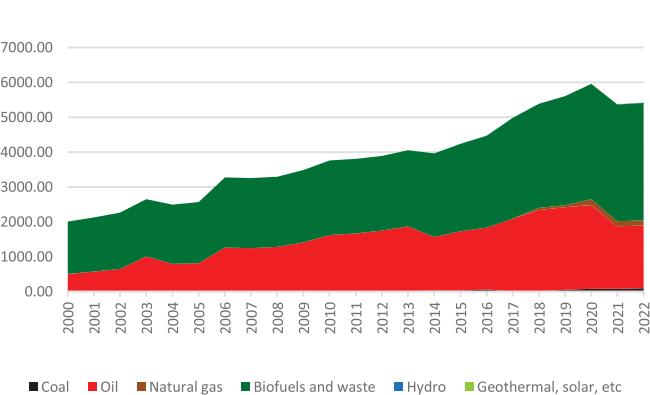


Figure 3.2. - Total Final Consumption (ktoe)

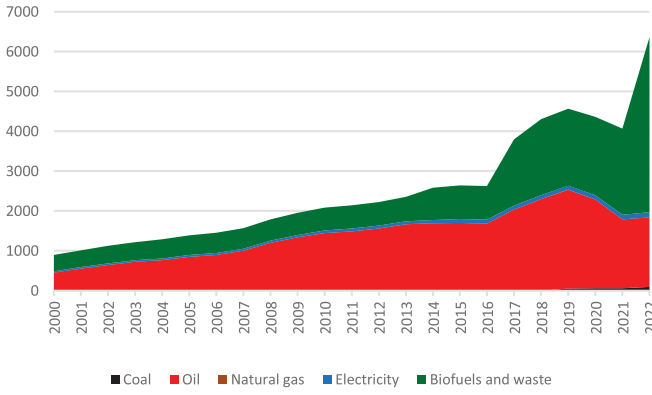


Figure 3.1. - Total Primary Energy Supply (ktoe)

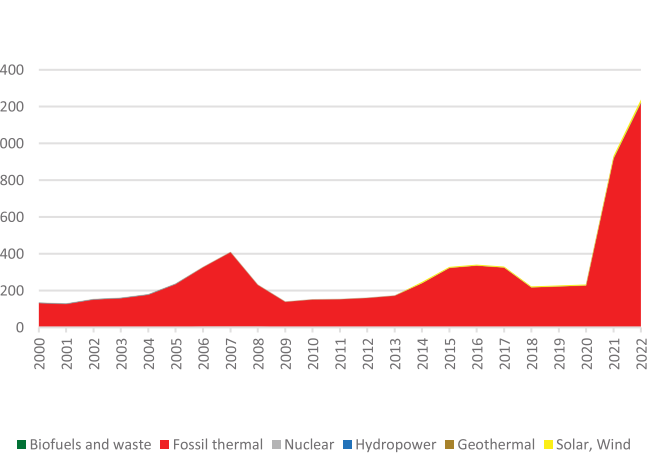


Figure 3.4. - Fuel Shares of Total Final Consumption

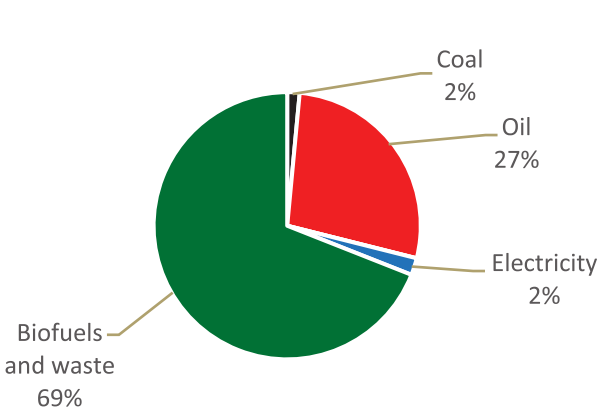


Figure 3.5. - Electricity Consumption by Sector

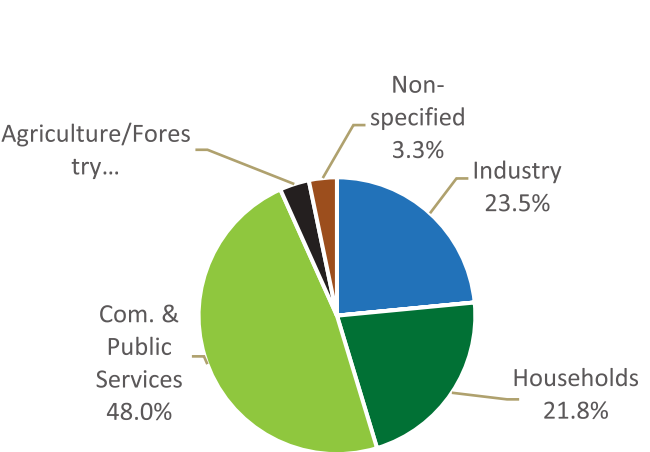
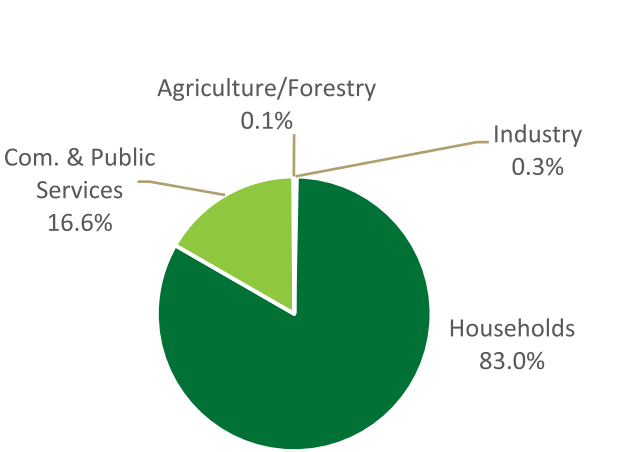


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Natural Gas	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	-	-	-	3363,00	1,51	-	3364,51
Imports (+)	114,39	1843,33	148,38	-	-	71,75	2177,85
Exports (-)	-	-	-	-	-	-0,16	-0,16
International Marine Bunkers (-)	-	-4,70	-	-	-	-	-4,70
International Aviation Bunkers (-)	-	-32,40	-	-	-	-	-32,40
Stock Changes (+ draw, - build)	-19,15	-5,96	-	-	-	-	-25,11
TOTAL PRIMARY ENERGY SUPPLY	95,23	1800,28	148,38	3363,00	1,51	71,59	5479,99
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	-	-7,88	-	-2088,50	-	4,67	-2091,70
TRANSFORMATION Inputs (-) and Outputs (+)	-	-62,22	-148,38	-1060,19	-1,51	106,50	-1165,80
Electricity plants	-	-62,22	-148,38	-	-1,51	106,50	-105,61
CHP Plants	-	-	-	-111,02	-	-	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-1060,19	-	-	-1060,19
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	8,75	8,75
Losses	-	1,29	-	-	-	33,12	34,41
FINAL CONSUMPTION	95,23	1744,65	-	4391,30	-	131,55	6362,74
Industry	95,23	60,40	-	13,52	-	30,88	200,03
Transport	-	1484,76	-	-	-	-	1484,77
Households	-	56,80	-	3645,22	-	28,74	3730,76
Commercial and public services	-	13,86	-	729,04	-	63,10	806,00
Agriculture, Forestry and Fishing	-	11,55	-	3,52	-	4,53	19,60
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	4,30	4,30
Non-Energy Use	-	117,28	-	-	-	-	117,28

INDICATORS AND ENERGY BALANCES



Botswana Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

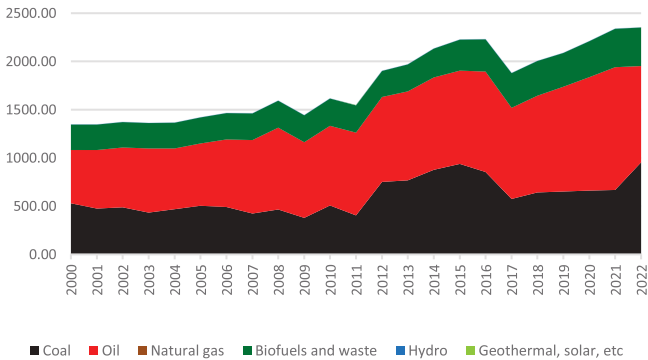


Figure 3.2. - Total Final Consumption (ktoe)

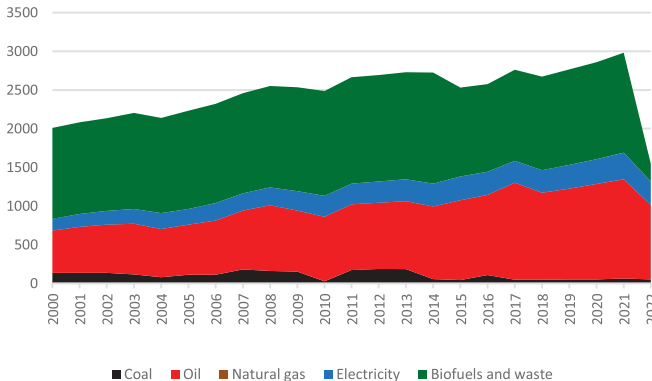


Figure 3.1. - Total Primary Energy Supply (ktoe)

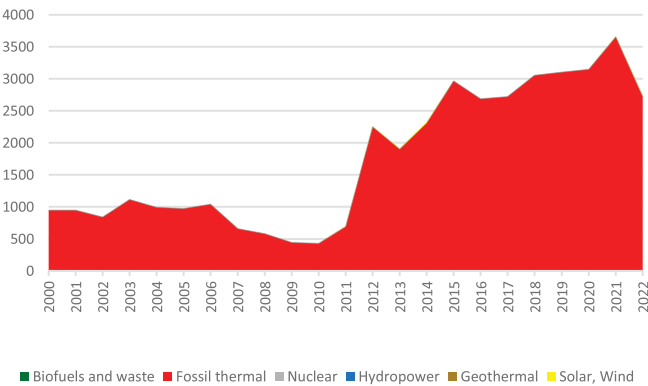


Figure 3.4. - Fuel Shares of Total Final Consumption

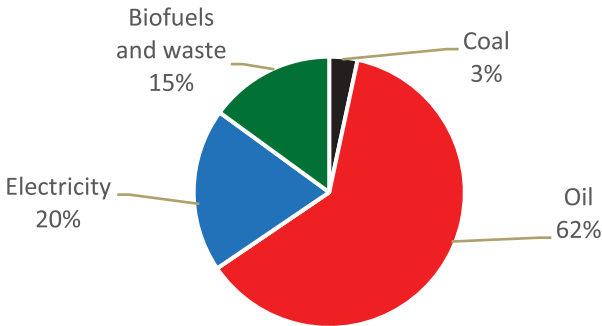


Figure 3.5. - Electricity Consumption by Sector

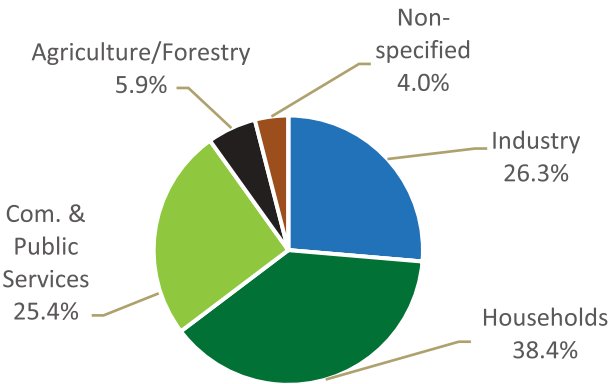
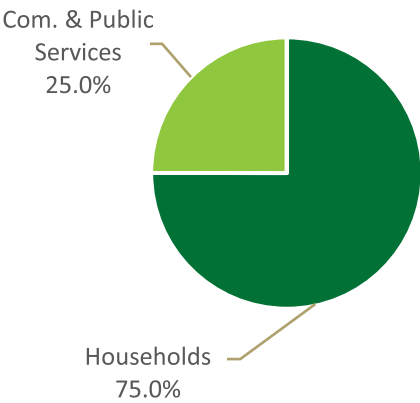


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	1315,04	-	399,57	0,57	-	1715,18
Imports (+)	-	1004,29	-	-	157,20	1161,48
Exports (-)	-360,18	-	-	-	-0,19	-360,37
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-6,07	-	-	-	-6,07
Stock Changes (+ draw, - build)	-	-0,79	-	-	-	-0,79
TOTAL PRIMARY ENERGY SUPPLY	954,87	997,43	399,57	0,57	157,01	2509,44
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	-	0,23	1,43	-	0,76	2,42
TRANSFORMATION Inputs (-) and Outputs (+)	-902,69	-34,37	-166,03	-0,57	235,13	-868,52
Electricity plants	-902,69	-34,37	-	-0,57	235,13	-702,49
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-	-166,03	-	-	-166,03
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	34,90	34,90
Losses	-	-	-	-	54,20	54,20
FINAL CONSUMPTION	52,18	962,83	232,11	-	302,29	1549,41
Industry	47,45	145,68	-	-	79,64	272,77
Transport	-	754,25	-	-	-	754,25
Households	-	15,26	174,12	-	115,96	305,34
Commercial and public services	1,34	14,71	57,99	-	76,80	150,85
Agriculture, Forestry and Fishing	1,34	7,70	-	-	17,78	28,87
Non-specified (HH, Com. & PS., Agri.)	-	0,97	-	-	12,11	13,08
Non-Energy Use	-	24,25	-	-	-	24,25

INDICATORS AND ENERGY BALANCES



Burkina Faso Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

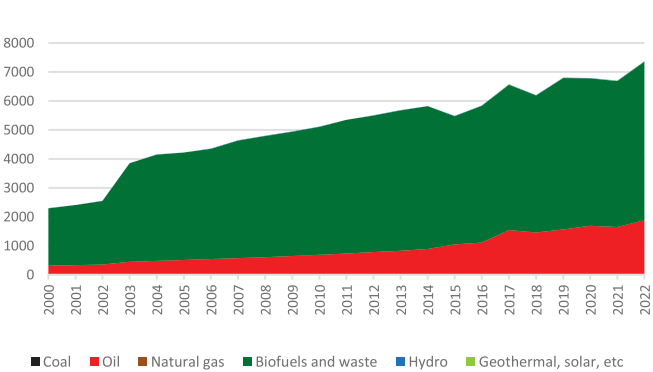


Figure 3.2. - Total Final Consumption (ktoe)

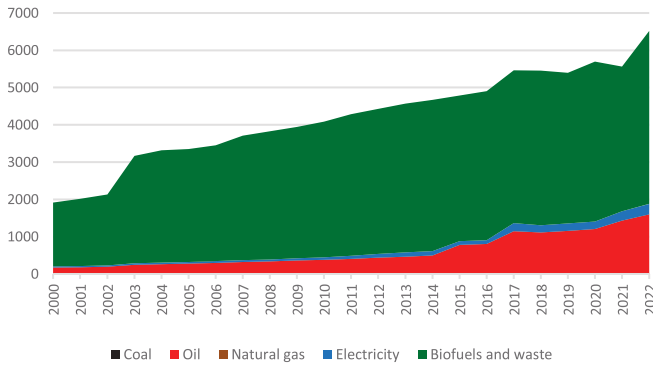


Figure 3.3. - Electricity Generation by Source (GWh)

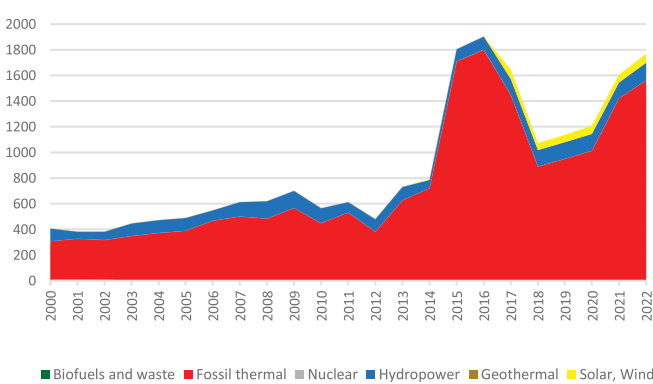


Figure 3.4. - Fuel Shares of Total Final Consumption

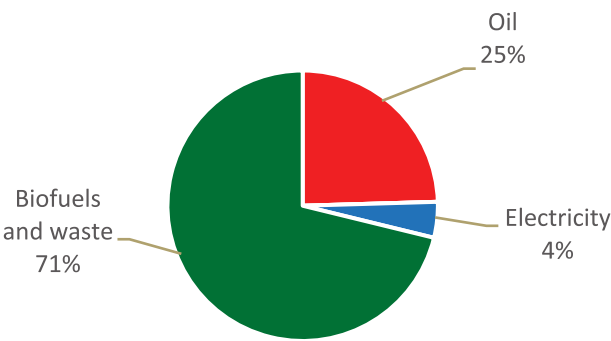


Figure 3.5. - Electricity Consumption by Sector

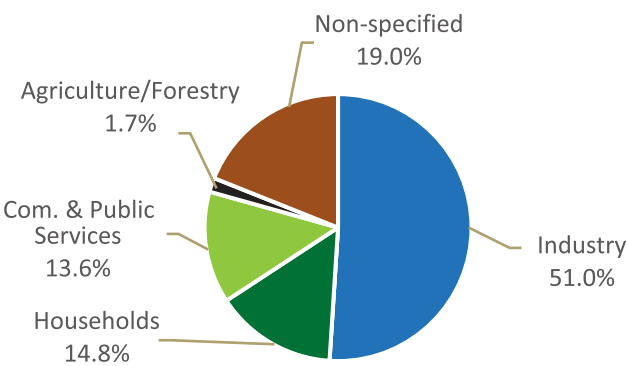
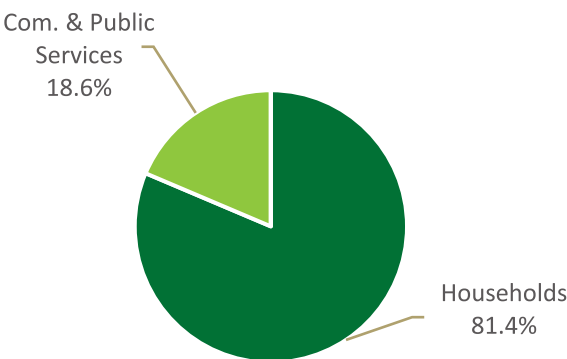


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	5470,58	11,69	5,95	-	5488,22
Imports (+)	1867,68	-	-	-	148,33	2016,02
Exports (-)	-	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-	-	-	-	-
Stock Changes (+ draw, - build)	16,54	-	-	-	-	16,54
TOTAL PRIMARY ENERGY SUPPLY	1884,22	5470,58	11,69	5,95	148,33	7520,77
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	0,83	-	-	-	-0,01	0,82
TRANSFORMATION Inputs (-) and Outputs (+)	-283,60	-829,19	-11,69	-5,95	152,04	-978,38
Electricity plants	-283,60	-81,81	-11,69	-5,95	152,04	-231,00
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-747,38	-	-	-	-747,38
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	2,65	2,65
Losses	-	-	-	-	19,02	19,02
FINAL CONSUMPTION	1599,79	4641,39	-	-	278,72	6519,90
Industry	250,27	-	-	-	142,21	392,47
Transport	1172,10	-	-	-	-	1172,10
Households	102,30	3777,27	-	-	41,11	3920,68
Commercial and public services	67,68	864,12	-	-	37,81	969,61
Agriculture, Forestry and Fishing	7,44	-	-	-	4,74	12,19
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	52,84	52,84
Non-Energy Use	-	-	-	-	0.00	-

INDICATORS AND ENERGY BALANCES



Republic of Burundi Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

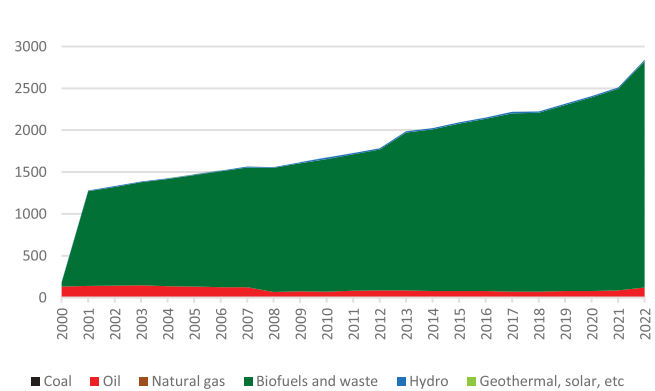


Figure 3.2. - Total Final Consumption (ktoe)

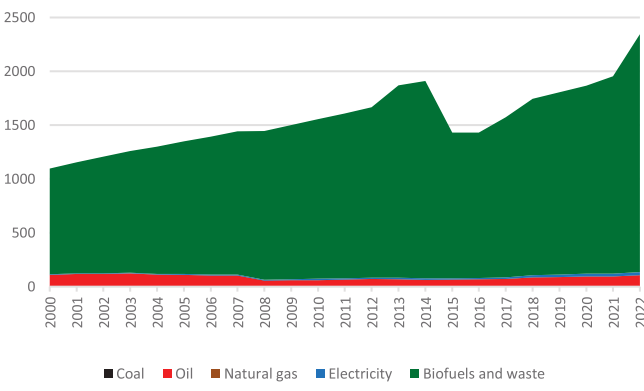


Figure 3.3. - Electricity Generation by Source (GWh)

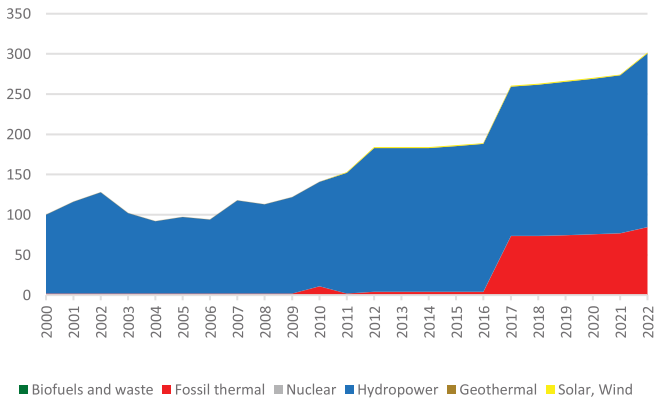


Figure 3.4. - Fuel Shares of Total Final Consumption

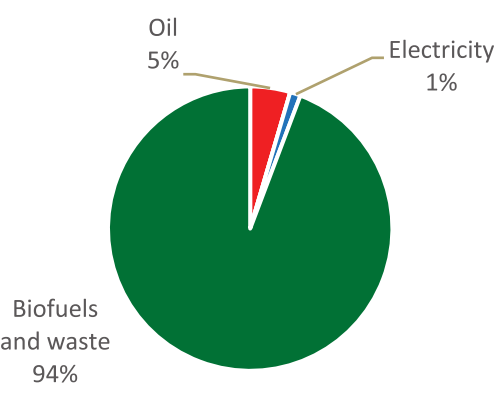


Figure 3.5. - Electricity Consumption by Sector

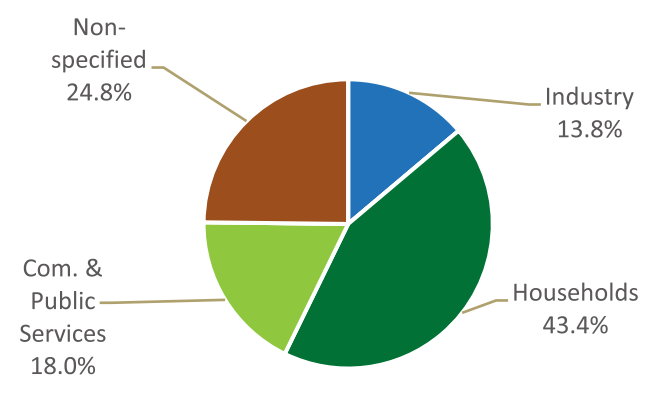
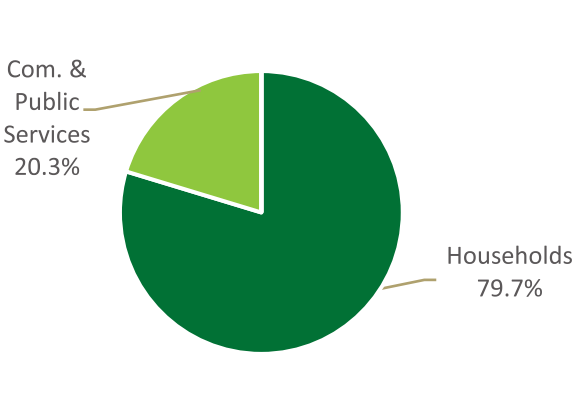


Figure 3.6. - Biofuels and Waste Consumption by Sector





Republic of Burundi
Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	2703,97	18,58	0,10	-	2722,64
Imports (+)	97,24	-	-	-	13,70	110,95
Exports (-)	-	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-4,70	-	-	-	-	-4,70
Stock Changes (+ draw, - build)	25,68	-	-	-	-	25,68
TOTAL PRIMARY ENERGY SUPPLY	118,22	2703,97	18,58	0,10	13,70	2854,56
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	-0,87	26,16	-	-	0,33	25,62
TRANSFORMATION Inputs (-) and Outputs (+)	-12,49	-467,69	-18,58	-0,10	25,95	-472,90
Electricity plants	-12,49	-	-18,58	-0,10	25,95	-5,21
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-467,69	-	-	-	-467,69
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	2,36	2,36
Losses	-	-	-	-	8,71	8,71
FINAL CONSUMPTION	106,61	2210,11	-	-	28,25	2344,97
Industry	32,39	-	-	-	3,91	36,30
Transport	68,36	-	-	-	-	68,36
Households	4,38	1761,16	-	-	12,25	1777,79
Commercial and public services	1,48	448,95	-	-	5,07	455,50
Agriculture, Forestry and Fishing	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	7,01	7,01
Non-Energy Use	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES



Republic of Cape Verde Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

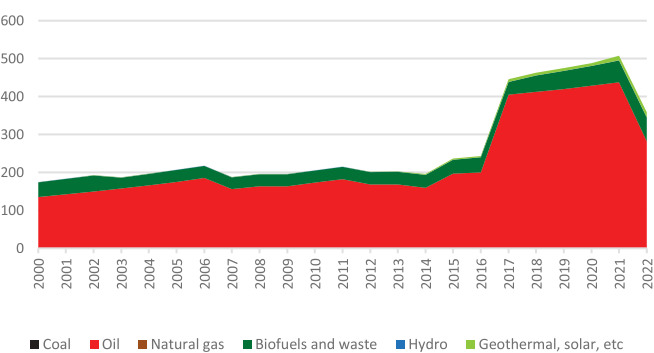


Figure 3.2. - Total Final Consumption (ktoe)

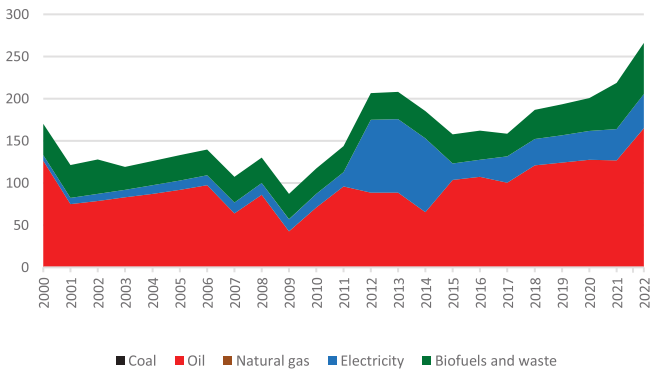


Figure 3.3. - Electricity Generation by Source (GWh)

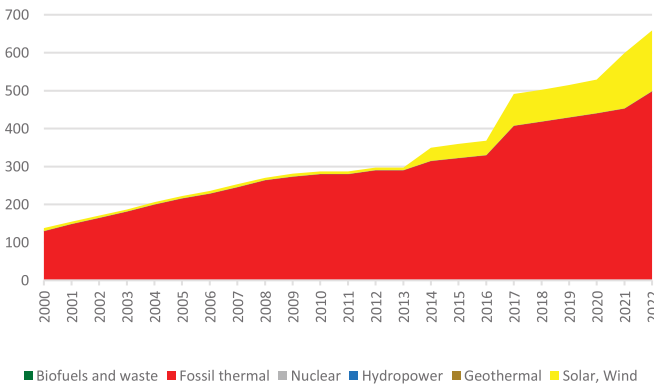


Figure 3.4. - Fuel Shares of Total Final Consumption

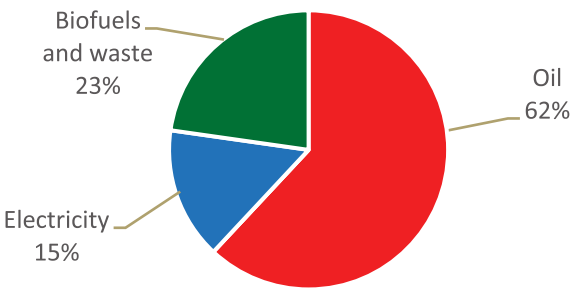


Figure 3.5. - Electricity Consumption by Sector

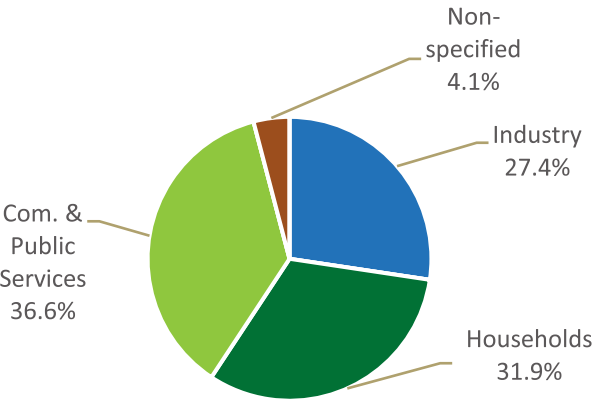
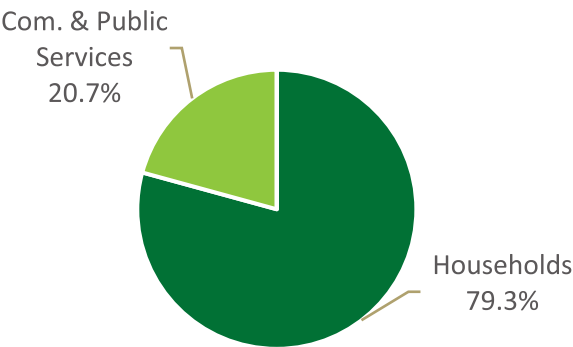


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Solar	Wind	Electricity	Total of all energy sources
Production	-	62,45	1,09	12,68	-	76,22
Imports (+)	531,62	-	-	-	-	531,62
Exports (-)	-	-	-	-	-	-
International Marine Bunkers (-)	-186,06	-	-	-	-	-186,06
International Aviation Bunkers (-)	-107,97	-	-	-	-	-107,97
Stock Changes (+ draw, - build)	44,67	-	-	-	-	44,67
TOTAL PRIMARY ENERGY SUPPLY	282,25	62,45	1,09	12,68	-	358,48
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	-0,13	0,24	-	-	0,12	0,23
TRANSFORMATION Inputs (-) and Outputs (+)	-117,49	-1,66	-1,09	-12,68	56,64	-76,28
Electricity plants	-117,49	-	-1,09	-12,68	56,64	-74,62
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-1,66	-	-	-	-1,66
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	1,81	1,81
Losses	-	-	-	-	14,01	14,01
FINAL CONSUMPTION	164,89	60,55	-	-	40,71	266,15
Industry	33,64	-	-	-	11,14	44,78
Transport	105,50	-	-	-	-	105,50
Households	10,47	47,98	-	-	12,99	71,44
Commercial and public services	10,48	12,56	-	-	14,91	37,95
Agriculture, Forestry and Fishing	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	3,93	-	-	-	1,66	5,60
Non-Energy Use	0,87	-	-	-	-	0,87

INDICATORS AND ENERGY BALANCES



Republic of Cameroon Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

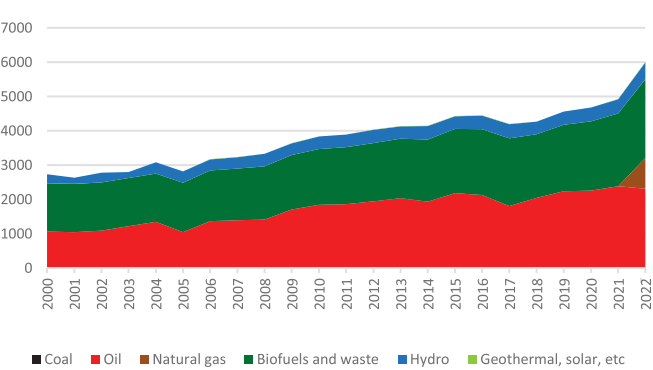


Figure 3.2. - Total Final Consumption (ktoe)

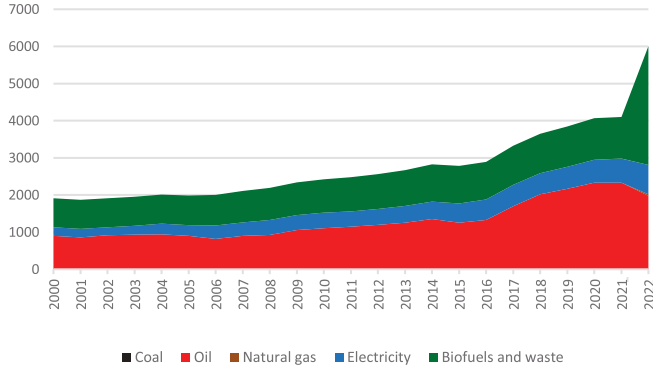


Figure 3.1. - Total Primary Energy Supply (ktoe)

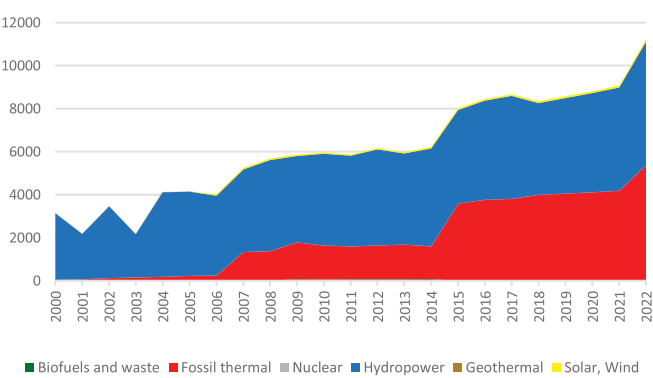


Figure 3.4. - Fuel Shares of Total Final Consumption

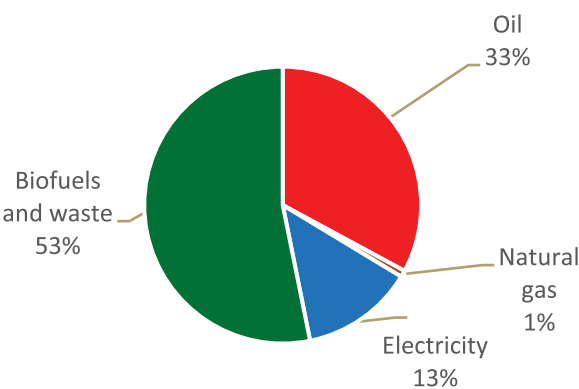


Figure 3.5. - Electricity Consumption by Sector

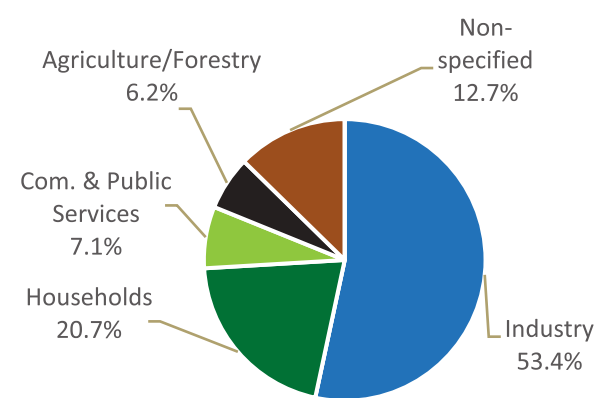
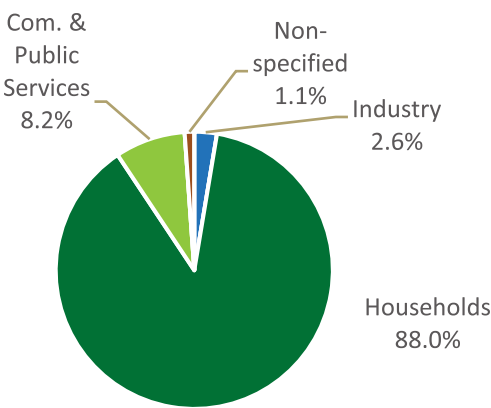


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Natural Gas	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	3334,05	-	2558,63	8293,04	493,96	9,31	-	14688,98
Imports (+)	-	2082,97	-	-	-	-	-	2082,97
Exports (-)	-3334,05	-38,65	-1791,04	-	-	-	-	-5163,74
International Marine Bunkers (-)	-	-48,24	-	-	-	-	-	-48,24
International Aviation Bunkers (-)	-	-53,88	-	-	-	-	-	-53,88
Stock Changes (+ draw, - build)	-	481,21	128,98	-	-	-	-	610,18
TOTAL PRIMARY ENERGY SUPPLY	-	2423,41	896,56	8293,04	493,96	9,31	-	12116,28
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-
Statistical Difference	-	-29,01	-19,42	-25,33	-	-	34,59	-39,18
TRANSFORMATION Inputs (-) and Outputs (+)	-	-391,87	-869,93	-5124,37	-493,96	-9,31	964,48	-5924,95
Electricity plants	-	-391,87	-869,93	-4311,70	-493,96	-9,31	964,48	-5112,28
CHP Plants	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-812,67	-	-	-	-812,67
Autre transformations non spécifiées ailleurs	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	85,52	46,06	-	-	-	28,04	113,56
Losses	-	-	46,06	-	-	-	110,42	110,42
FINAL CONSUMPTION	-	1975,04	-	3194,01	-	-	791,44	6006,54
Industry	-	137,99	-	84,12	-	-	422,32	690,49
Transport	-	1441,93	-	-	-	-	-	1441,93
Households	-	237,60	-	2811,72	-	-	163,79	3213,11
Commercial and public services	-	-	-	262,59	-	-	56,03	318,62
Agriculture, Forestry and Fishing	-	-	-	-	-	-	49,01	49,01
Non-specified (HH, Com. & PS., Agri.)	-	50,77	-	35,57	-	-	100,30	186,63
Non-Energy Use	-	106,75	-	-	-	-	-	106,75

INDICATORS AND ENERGY BALANCES



Central African Republic Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

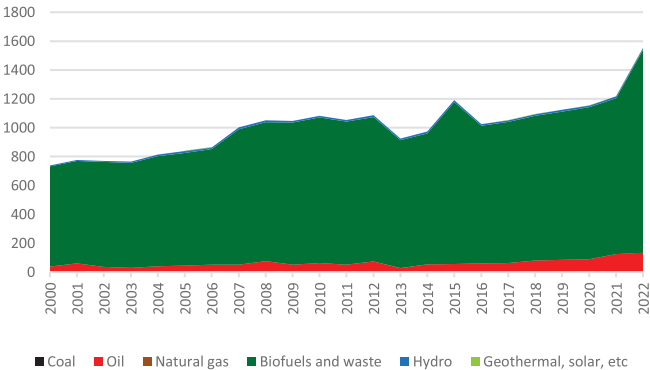


Figure 3.2. - Total Final Consumption (ktoe)

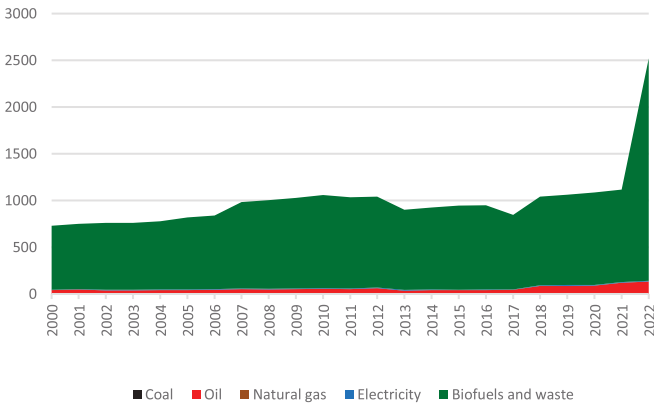


Figure 3.1. - Total Primary Energy Supply (ktoe)

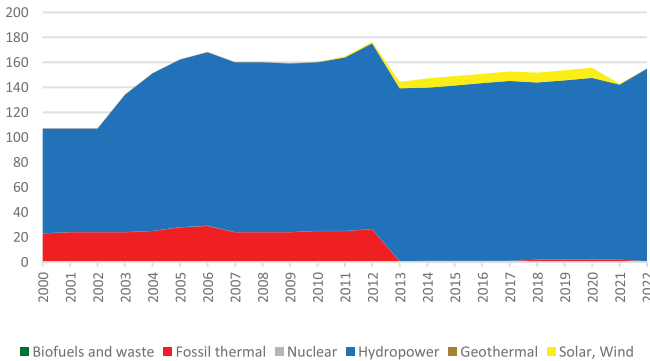


Figure 3.4. - Fuel Shares of Total Final Consumption

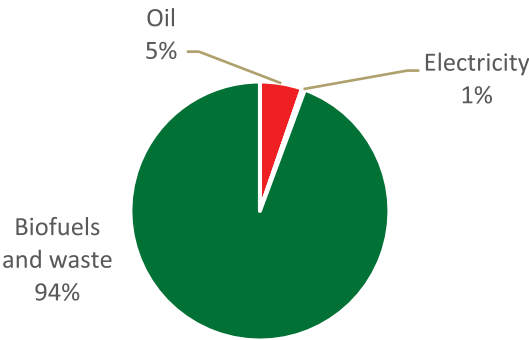


Figure 3.5. - Electricity Consumption by Sector

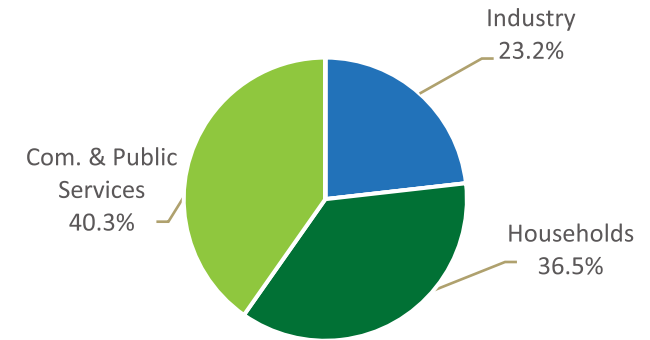
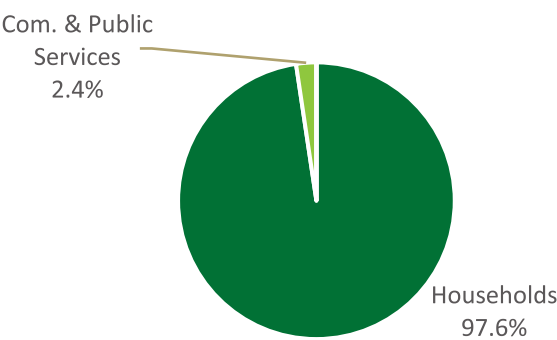


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Hydro	Electricity	Total of all energy sources
Production	-	1404,09	13,25	-	1417,34
Imports (+)	140,04	-	-	-	140,04
Exports (-)	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-
International Aviation Bunkers (-)	-3,42	-	-	-	-3,42
Stock Changes (+ draw, - build)	-2,11	-	-	-	-2,11
TOTAL PRIMARY ENERGY SUPPLY	134,52	1404,09	13,25	0.00	1551,86
Transfers : Origin (-) and Destination (+)	-	-	-	-	-
Statistical Difference	1,34	-1006,39	-	0,61	-1004,43
TRANSFORMATION Inputs (-) and Outputs (+)	-0,19	-32,54	-13,25	13,32	-32,66
Electricity plants	-0,19	-	-13,25	13,32	-0,12
CHP Plants	-	-	-	-	-
Heat Plants	-	-	-	-	-
Coke ovens	-	-	-	-	-
Blast furnaces	-	-	-	-	-
Oil Refineries	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-
Charcoal production plants	-	-32,54	-	-	--32,54
Transformation not elsewhere specified	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-
Losses	-	-	-	3,31	3,31
FINAL CONSUMPTION	132,98	2377,94	0.00	9,40	2520,32
Industry	15,55	-	-	2,18	17,73
Transport	115,51	-	-	-	115,51
Households	1,86	2321,79	-	3,44	2327,09
Commercial and public services	0,06	56,15	-	3,78	59,99
Agriculture, Forestry and Fishing	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-
Non-Energy Use	-	-	-	-	-

INDICATORS AND ENERGY BALANCES



Republic of Chad Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

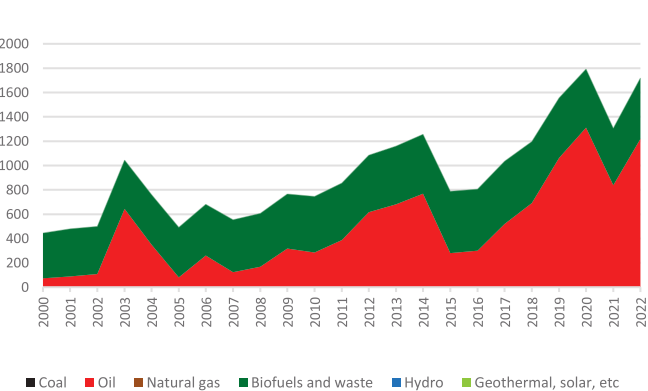


Figure 3.2. - Total Final Consumption (ktoe)

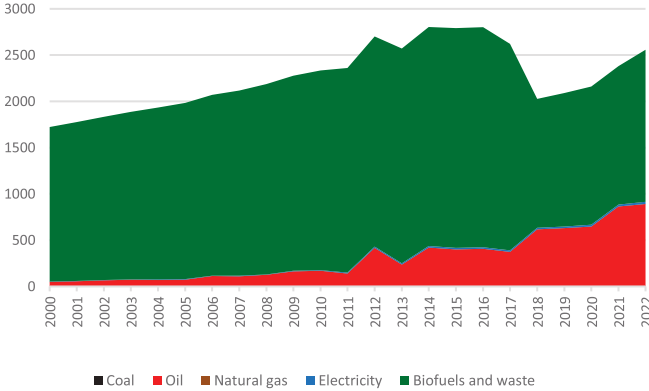


Figure 3.1. - Total Primary Energy Supply (ktoe)

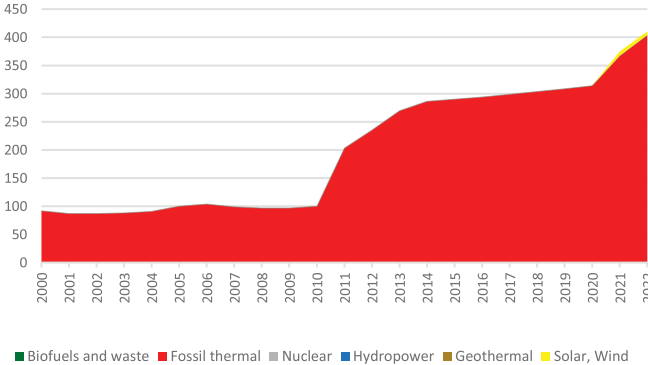


Figure 3.4. - Fuel Shares of Total Final Consumption

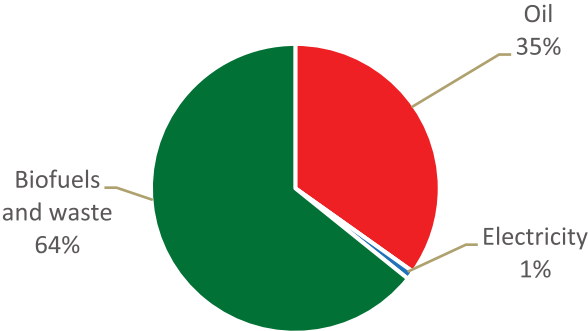


Figure 3.5. - Electricity Consumption by Sector

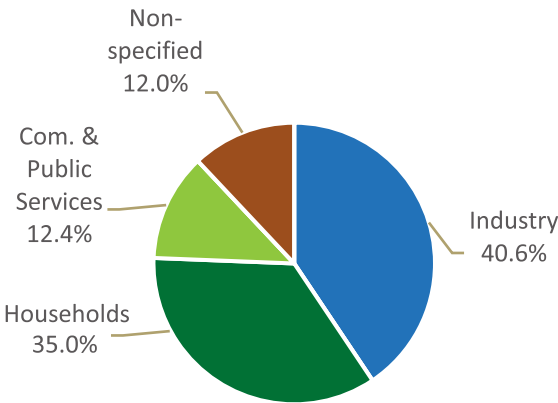
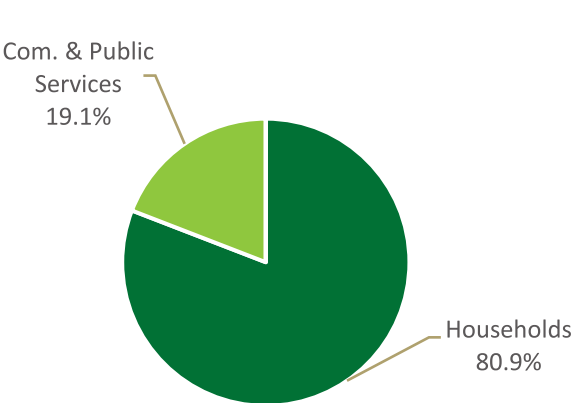


Figure 3.6. - Biofuels and Waste Consumption by Sector



Republic of Chad

Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Biofuels and waste	Wind	Electricity	Total of all energy sources
Production	7072,23	-	2499,04	0,57	-	9571,83
Imports (+)	-	5,38	-	-	-	5,38
Exports (-)	-6365,00	-18,18	-	-	-	-6383,11
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-53,71	-	-	-	-53,71
Stock Changes (+ draw, - build)	299,86	279,48	-	-	-	579,35
TOTAL PRIMARY ENERGY SUPPLY	1007,09	212,97	2499,04	0,57	-	3719,66
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	44,01	4,03	26,37	-	1,60	76,01
TRANSFORMATION Inputs (-) and Outputs (+)	-963,07	681,95	-829,40	-0,57	35,30	-1075,79
Electricity plants	-	-254,13	-11,69	-0,57	35,30	-219,40
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-963,07	936,08	-	-	-	-27,00
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-	-829,40	-	-	-829,40
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	1,66	1,66
Losses	-	-	-	-	7,63	7,63
FINAL CONSUMPTION	-	890,89	1643,27	-	24,42	2558,58
Industry	-	217,45	-	-	9,92	227,36
Transport	-	552,89	-	-	-	552,89
Households	-	12,13	1328,87	-	8,55	1349,55
Commercial and public services	-	61,81	314,41	-	3,02	379,23
Agriculture, Forestry and Fishing	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	46,62	-	-	2,93	49,55
Non-Energy Use	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES

Comoros Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

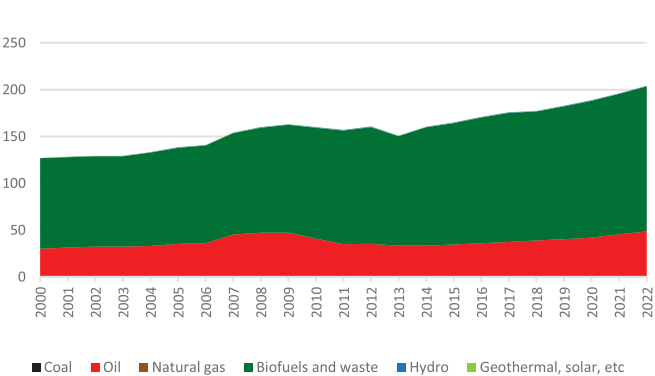


Figure 3.2. - Total Final Consumption (ktoe)

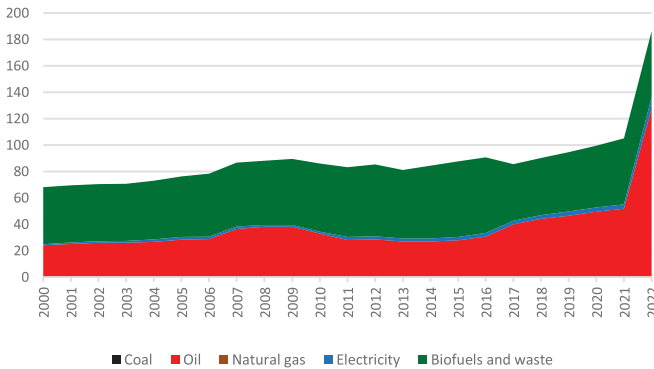


Figure 3.3. - Electricity Generation by Source (GWh)

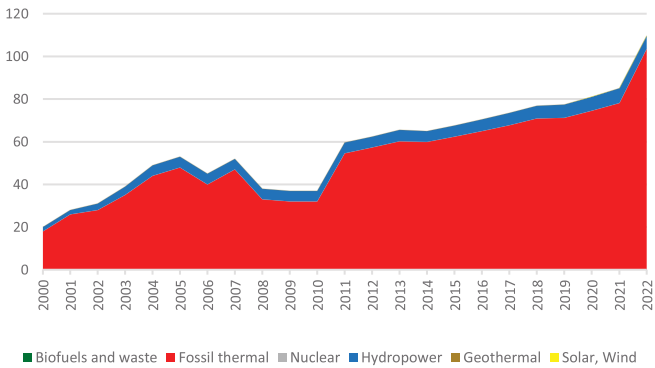


Figure 3.4. - Fuel Shares of Total Final Consumption

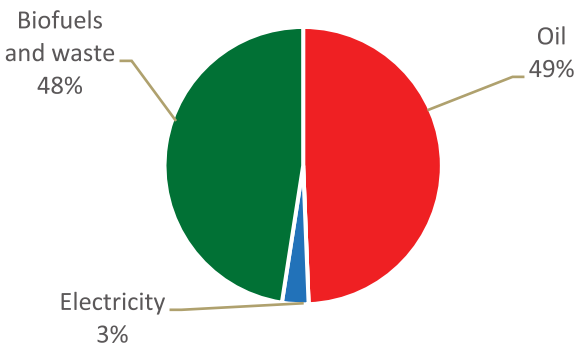


Figure 3.5. - Electricity Consumption by Sector

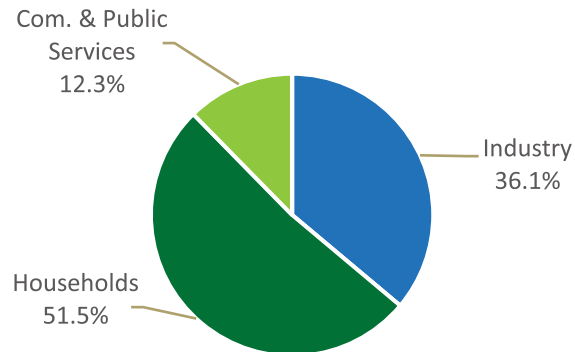
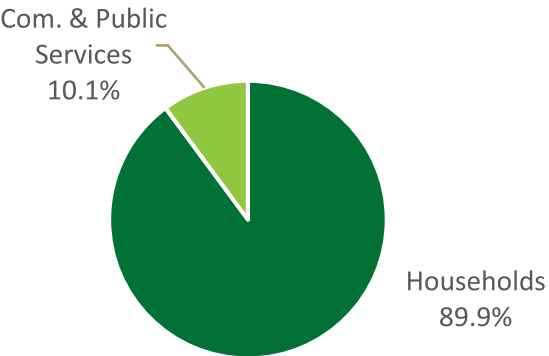


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	-	507,37	0,52	-	507,90
Imports (+)	159,40	-	-	-	159,40
Exports (-)	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-
International Aviation Bunkers (-)	-17,71	-	-	-	-17,71
Stock Changes (+ draw, - build)	6,76	-	-	-	6,76
TOTAL PRIMARY ENERGY SUPPLY	148,46	507,37	0,52	-	656,35
Transfers : Origin (-) and Destination (+)	-	-	-	-	-
Statistical Difference	2,00	17,60	-	-0,46	19,14
TRANSFORMATION Inputs (-) and Outputs (+)	-18,70	-91,29	-0,52	9,43	-101,08
Electricity plants	-18,70	-81,81	-0,52	9,43	-9,80
CHP Plants	-	-	-	-	-
Heat Plants	-	-	-	-	-
Coke ovens	-	-	-	-	-
Blast furnaces	-	-	-	-	-
Oil Refineries	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-
Charcoal production plants	-	-91,29	-	-	-91,29
Transformation not elsewhere specified	-	0.00	-	-	-
Energy Sector Own Use	-	-	-	1,29	1,29
Losses	-	-	-	0,03	0,03
FINAL CONSUMPTION	127,75	398,49	-	8,56	534,80
Industry	18,98	-	-	1,08	20,06
Transport	48,37	-	-	-	48,37
Households	39,54	358,13	-	6,36	404,03
Commercial and public services	20,86	40,36	-	1,12	62,34
Agriculture, Forestry and Fishing	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-
Non-Energy Use	-	-	-	-	-

INDICATORS AND ENERGY BALANCES



Congo Republic Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

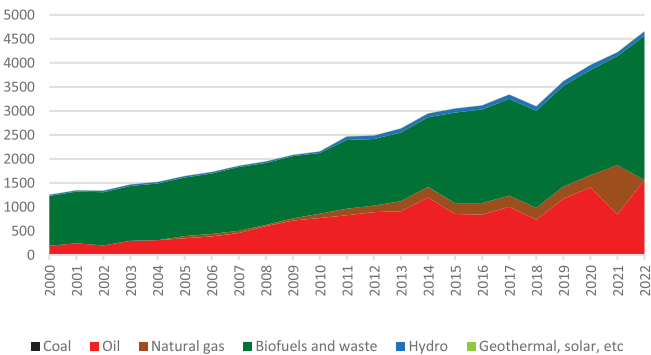


Figure 3.2. - Total Final Consumption (ktoe)

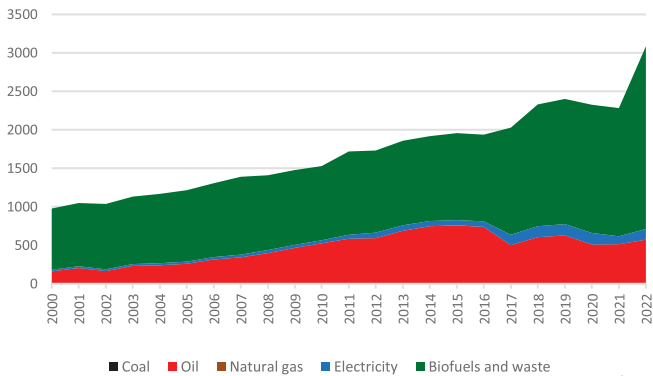


Figure 3.3. - Electricity Generation by Source (GWh)

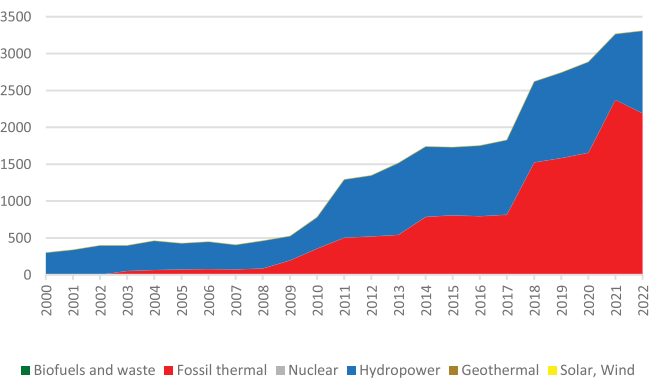


Figure 3.4. - Fuel Shares of Total Final Consumption

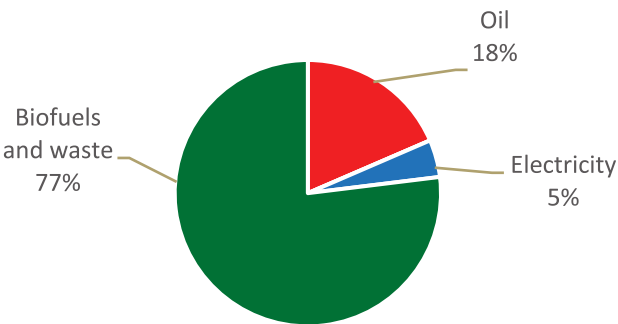


Figure 3.5. - Electricity Consumption by Sector

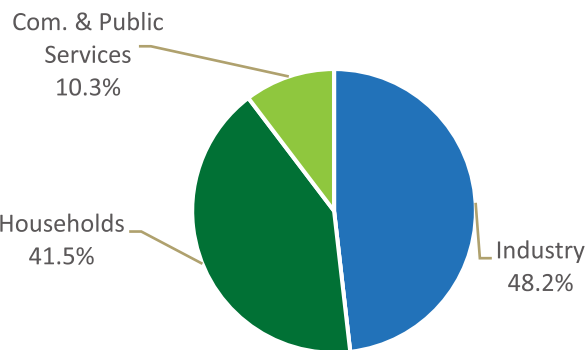
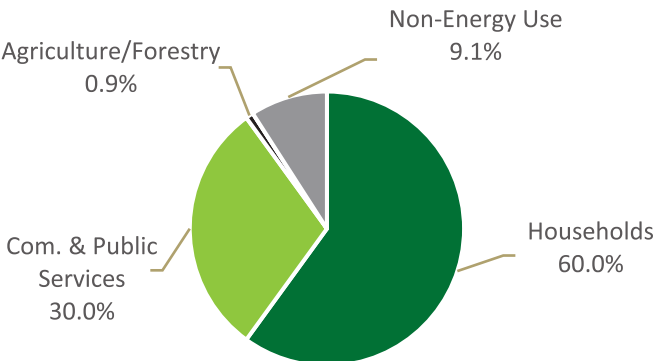


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Biofuels and waste	Hydro	Electricity	Total of all energy sources
Production	15356,84	-	4561,59	96,22	-	20014,64
Imports (+)	-	255,01	-	-	0,97	255,98
Exports (-)	-	-	-	-	-19,51	-19,51
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-	-	-	-	-
Stock Changes (+ draw, - build)	-	-	-	-	-	-
TOTAL PRIMARY ENERGY SUPPLY	15356,84	255,01	4561,59	96,22	-18,53	20251,12
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	14508,17	-0,06	0,02	-	-14,91	14493,22
TRANSFORMATION Inputs (-) and Outputs (+)	-848,67	316,25	-2187,16	-96,22	284,47	-2531,31
Electricity plants	-	-92,61	-	-96,22	284,47	188,26
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-848,67	316,25	-	-	-	-532,41
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-	-2187,16	-	-	-2187,16
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	0,05	0,05
Losses	-	-	-	-	140,86	140,86
FINAL CONSUMPTION	-	571,32	2374,41	0,00	139,94	3085,67
Industry	-	0,93	-	-	67,42	68,35
Transport	-	456,97	-	-	-	456,97
Households	-	13,16	1424,65	-	58,06	1495,87
Commercial and public services	-	24,24	712,32	-	14,46	751,03
Agriculture, Forestry and Fishing	-	6,87	21,48	-	-	28,35
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	0,40
Non-Energy Use	-	68,74	215,96	-	-	284,70

INDICATORS AND ENERGY BALANCES



Côte d'Ivoire Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

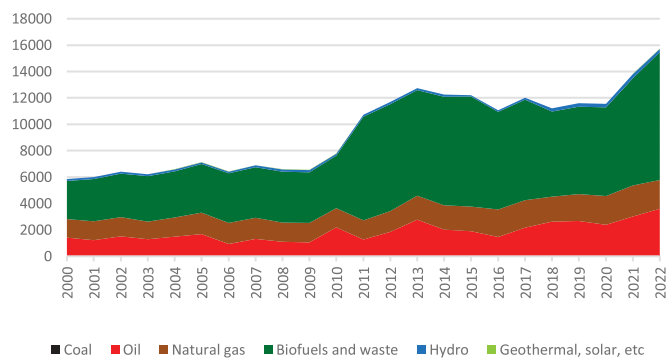


Figure 3.2. - Total Final Consumption (ktoe)

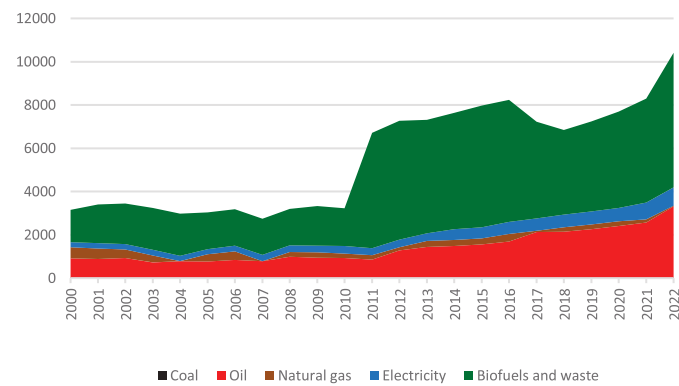


Figure 3.3. - Production d'Electricité par Source (GWh)

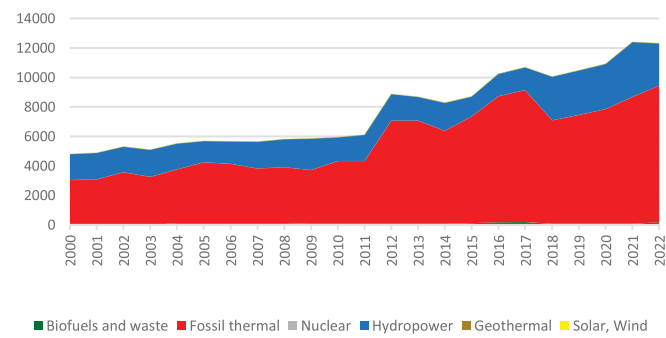


Figure 3.4. - Fuel Shares of Total Final Consumption

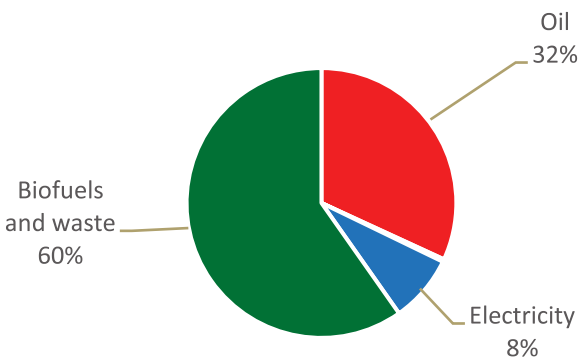


Figure 3.5. - Electricity Consumption by Sector

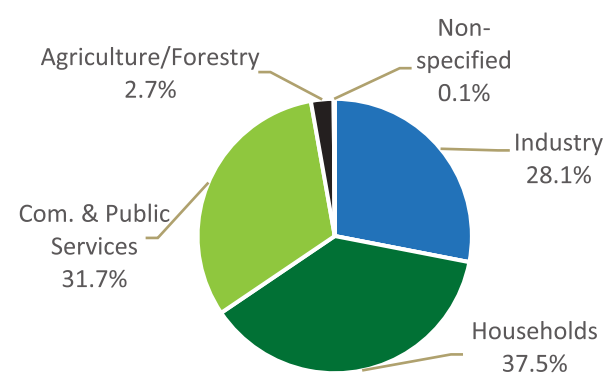
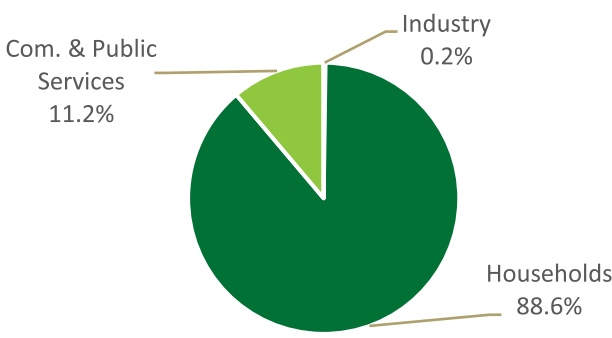


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Natural Gas	Biofuels and waste	Hydro	Electricity	Total of all energy sources
Production	1350,69	-	2183,22	9683,71	246,25	-	13463,87
Imports (+)	4806,91	621,41	-	-	-	22,93	5451,25
Exports (-)	-1243,27	-1751,57	-	-	-	-53,63	-3048,47
International Marine Bunkers (-)	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-149,07	-	-	-	-	-149,07
Stock Changes (+ draw, - build)	-53,47	19,20	-	-	-	-	-34,27
TOTAL PRIMARY ENERGY SUPPLY	4860,86	-1260,04	2183,22	9683,71	246,25	-30,71	15683,30
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	51,89	35,87	124,40	-	-	31,29	243,46
TRANSFORMATION Inputs (-) and Outputs (+)	-4808,97	4613,13	-1895,44	-3462,53	-246,25	1058,88	-4741,17
Electricity plants	-	-92,61	-1895,44	-	-246,25	1044,53	-1189,77
CHP Plants	-	-	-	-111,02	-	14,35	-96,67
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-4808,97	4705,74	-	-	-	-	-103,22
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-3351,50	-	-	-3351,50
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	64,99	-	-	18,26	83,25
Losses	-	-	65,50	-	-	138,46	203,96
FINAL CONSUMPTION	-	3317,22	132,80	6221,18	-	840,17	10411,47
Industry	-	147,55	32,90	13,72	-	235,68	429,85
Transport	-	2398,77	32,90	-	-	-	2398,77
Households	-	587,92	-	5512,92	-	314,94	6415,78
Commercial and public services	-	2,40	-	694,53	-	266,06	963,00
Agriculture, Forestry and Fishing	-	42,32	-	-	-	22,36	64,68
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	1,13	1,13
Non-Energy Use	-	138,26	-	-	-	-	138,26

INDICATORS AND ENERGY BALANCES



Democratic Republic of the Congo Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

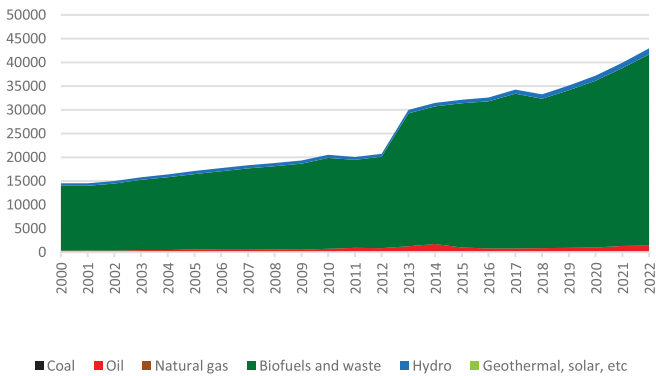


Figure 3.2. - Total Final Consumption (ktoe)

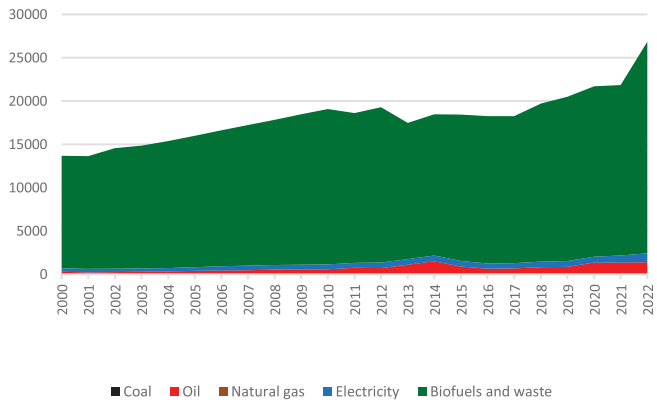


Figure 3.3. - Production d'Electricité par Source (GWh)

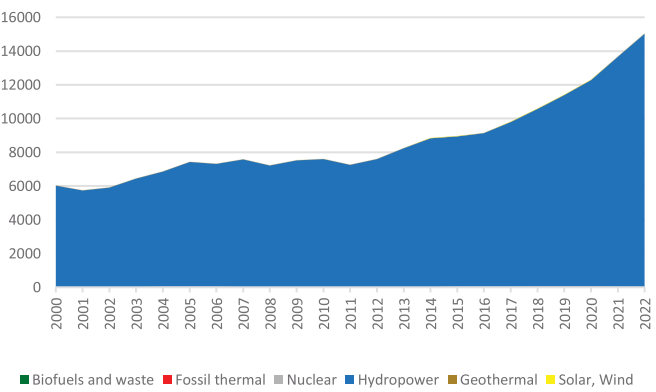


Figure 3.4. - Fuel Shares of Total Final Consumption

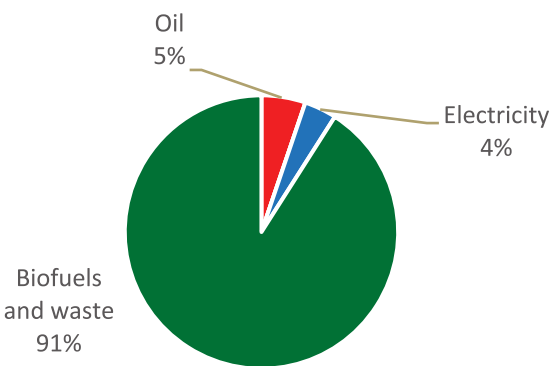


Figure 3.5. - Electricity Consumption by Sector

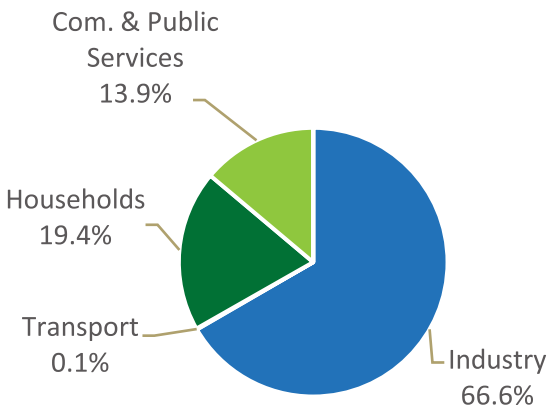
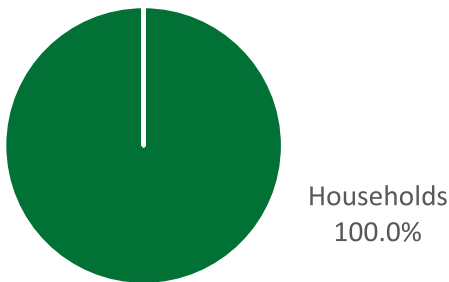


Figure 3.6. - Biofuels and Waste Consumption by Sector





Democratic Republic of the Congo

Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Biofuels and waste	Hydro	Solaire	Electricity	Total of all energy sources
Production	1463,06	-	40274,60	1289,05	0,78	-	43027,49
Imports (+)	-	1503,90	-	-	-	123,74	1627,64
Exports (-)	-1463,06	-	-	-	-	-5,21	-1468,27
International Marine Bunkers (-)	-	-113,04	-	-	-	-	-113,04
International Aviation Bunkers (-)	-	-	-	-	-	-	-
Stock Changes (+ draw, - build)	12,12	-20,04	-	-	-	-	-7,92
TOTAL PRIMARY ENERGY SUPPLY	12,12	1370,82	40274,60	1289,05	0,78	118,52	43065,90
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	12,12	2,93	-	-	-	38,12	53,17
TRANSFORMATION Inputs (-) and Outputs (+)	-848,67	316,25	-15854,98	-96,22	-0,78	1290,57	-15823,44
Electricity plants	-	-92,61	-	-96,22	-0,78	1290,57	31,54
CHP Plants	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-848,67	316,25	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-15854,98	-	-	-	-15854,98
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-	-
Losses	-	-	-	-	-	346,24	346,24
FINAL CONSUMPTION	-	1398,70	24419,61	-	-	1024,73	26843,05
Industry	-	720,39	-	-	-	682,93	1403,31
Transport	-	651,97	-	-	-	1,26	653,23
Households	-	16,94	24419,61	-	-	198,47	24635,02
Commercial and public services	-	-	-	-	-	142,07	142,07
Agriculture, Forestry and Fishing	-	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	-
Non-Energy Use	-	9,41	-	-	-	-	9,41

INDICATORS AND ENERGY BALANCES

Djibouti
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

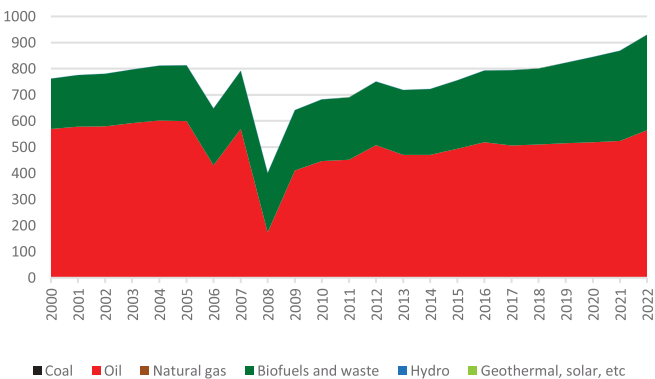


Figure 3.2. - Total Final Consumption (ktoe)

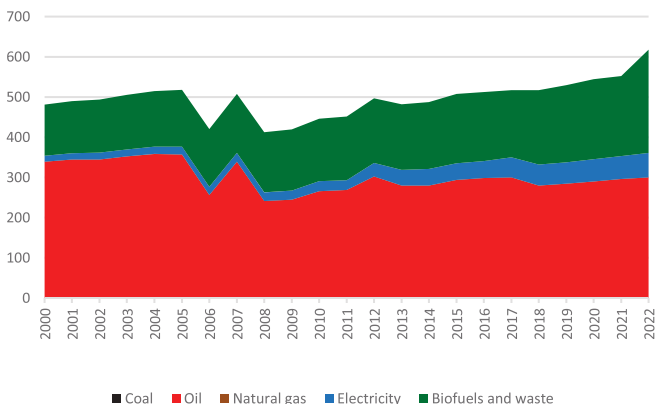


Figure 3.3. - Production d'Electricité par Source (GWh)

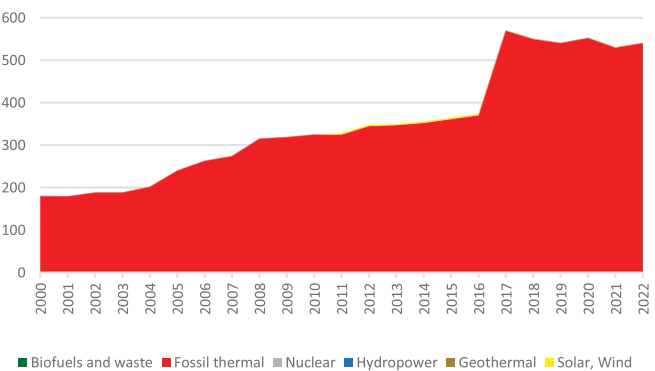


Figure 3.4. - Fuel Shares of Total Final Consumption

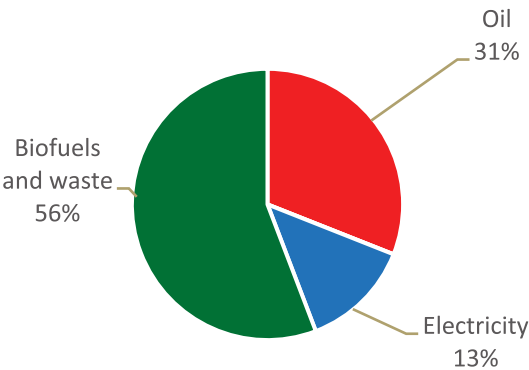


Figure 3.5. - Electricity Consumption by Sector

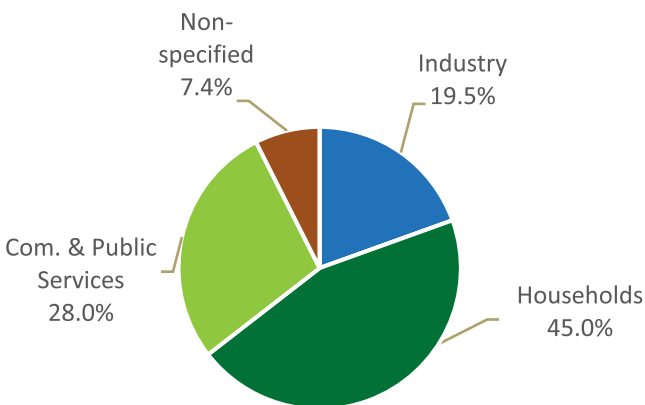
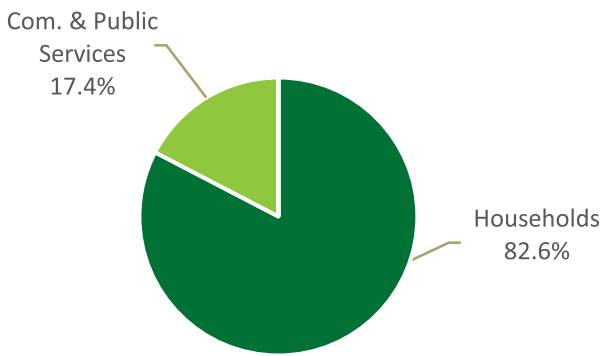


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	-	365,87	0,02	-	365,90
Imports (+)	204,11	-	-	59,43	263,53
Exports (-)	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-
International Aviation Bunkers (-)	-51,93	-	-	-	-51,93
Stock Changes (+ draw, - build)	11,91	-	-	-	11,91
TOTAL PRIMARY ENERGY SUPPLY	164,08	365,87	0,02	59,43	589,41
Transfers : Origin (-) and Destination (+)	-	-	-	-	-
Statistical Difference	1,23	2,53	-	-2,07	1,69
TRANSFORMATION Inputs (-) and Outputs (+)	-20,13	-106,43	-0,02	3,07	-123,51
Electricity plants	-20,13	-	-0,02	3,07	-17,08
CHP Plants	-	-	-	-	-
Heat Plants	-	-	-	-	-
Coke ovens	-	-	-	-	-
Blast furnaces	-	-	-	-	-
Oil Refineries	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-
Charcoal production plants	-	-106,43	-	-	-106,43
Transformation not elsewhere specified	-	-	-	-	-
Energy Sector Own Use	-	-	-	1,42	1,42
Losses	-	-	-	2,36	2,36
FINAL CONSUMPTION	142,72	256,91	0.00	60,79	460,42
Industry	9,44	-	-	11,86	21,29
Transport	104,89	-	-	-	104,89
Households	18,27	212,3	-	27,36	257,93
Commercial and public services	4,99	44,60	-	17,05	66,64
Agriculture, Forestry and Fishing	0.00	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	0.00	-	-	4,53	4,53
Non-Energy Use	5,13	-	-	-	5,13

INDICATORS AND ENERGY BALANCES

Egypt
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

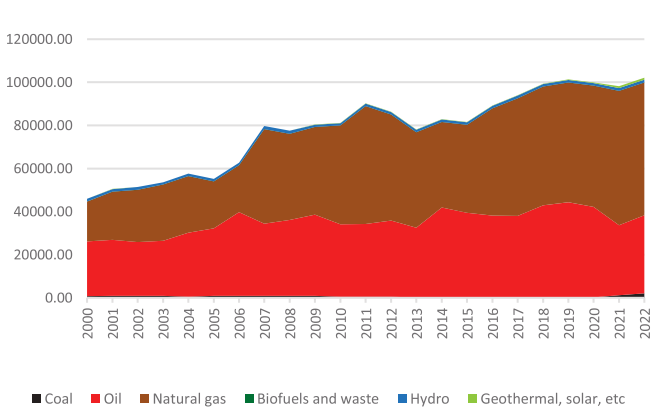


Figure 3.2. - Total Final Consumption (ktoe)

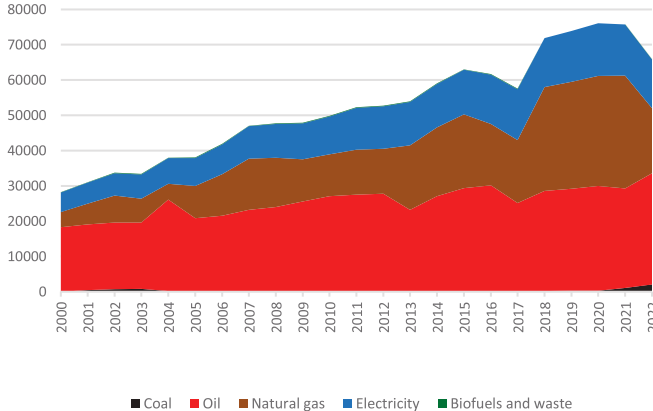


Figure 3.3. - Production d'Electricité par Source (GWh)

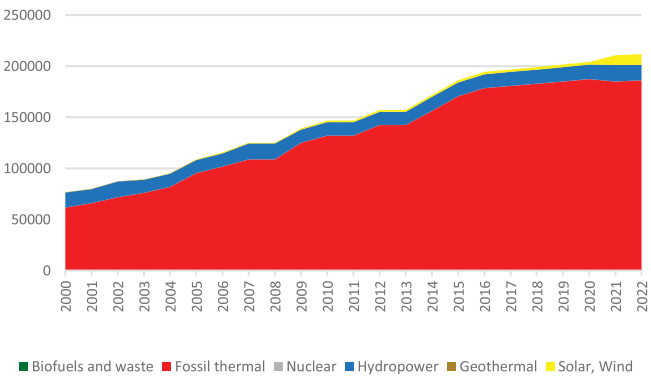


Figure 3.4. - Fuel Shares of Total Final Consumption

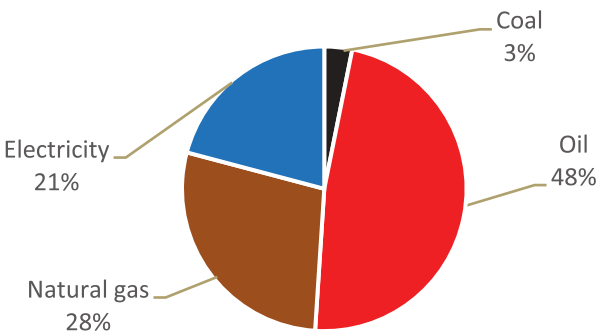


Figure 3.5. - Electricity Consumption by Sector

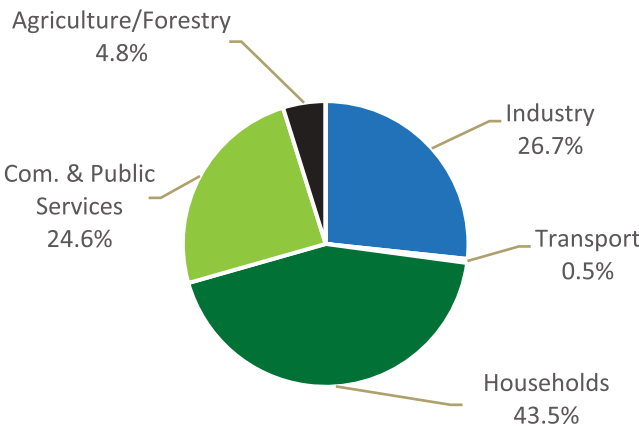
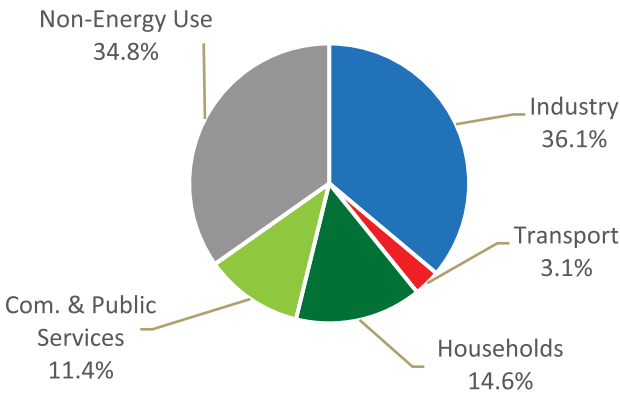


Figure 3.6. - Natural Gas Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Crude oil	Oil products	Natural Gas	Hydro	Solar	Wind	Electricity	Total of all energy sources
Production	-	33092,70	-	61658,24	1282,60	391,32	520,48	-	96945,34
Imports (+)	2080,3	14110,16	7086,89	2125,04	-	-	-	13,48	25415,88
Exports (-)	-	-10026,46	-10033,54	-2116,17	-	-	-	-122,42	-22298,60
International Marine Bunkers (-)	-	-	-384,72	-	-	-	-	-	-384,72
International Aviation Bunkers (-)	-	-	-1232,48	-	-	-	-	-	-1232,48
Stock Changes (+ draw, - build)	-	2321,71	1257,63	-	-	-	-	-	3579,34
TOTAL PRIMARY ENERGY SUPPLY	2080,31	39498,11	-3306,23	61667,11	1282,60	391,32	520,48	-108,94	102024,75
Transfers : Origin (-) and Destination (+)	-	-1447,29	1404,27	-	-	-	-	-	-43,02
Statistical Difference	2,40	-1,30	184,26	2080,16	-	-	-	789,27	3054,79
TRANSFORMATION Inputs (-) and Outputs (+)	3,85	-38052,11	33576,52	-34723,85	-1282,60	-391,32	-520,48	18209,71	-23180,30
Electricity plants	-	-	-2158,02	-34723,85	-1282,60	-391,32	-520,48	18209,71	-20866,57
CHP Plants	-	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-
Oil Refineries	-	-38052,11	35734,54	-	-	-	-	-	-2317,58
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-	-	-	-
Transformation not elsewhere specified	3,85	-	-	-	-	-	-	-	3,85
Energy Sector Own Use	-	-	-	6379,68	-	-	-	554,75	6934,43
Losses	-	-	-	-	-	-	-	3021,54	3021,54
FINAL CONSUMPTION	2081,75	-	31490,30	18483,42	-	-	-	13735,21	65790,68
Industry	2081,75	-	4175,96	6674,14	-	-	-	4030,75	16596,17
Transport	-	-	18461,63	569,08	-	-	-	3664,32	19093,02
Households	0.31	-	4338,81	2705,62	-	-	-	62,31	13013,36
Commercial and public services	-	-	909,07	2106,62	-	-	-	5968,93	6392,20
Agriculture, Forestry and Fishing	-	-	979,29	-	-	-	-	3376,50	1642,43
Non-specified (HH, Com. & PS., Agri.)	-	-	45,72	-	-	-	-	663,14	45,72
Non-Energy Use	-	-	2579,82	6427,96	-	-	-	-	9007,77

INDICATORS AND ENERGY BALANCES



Equatorial Guinea Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

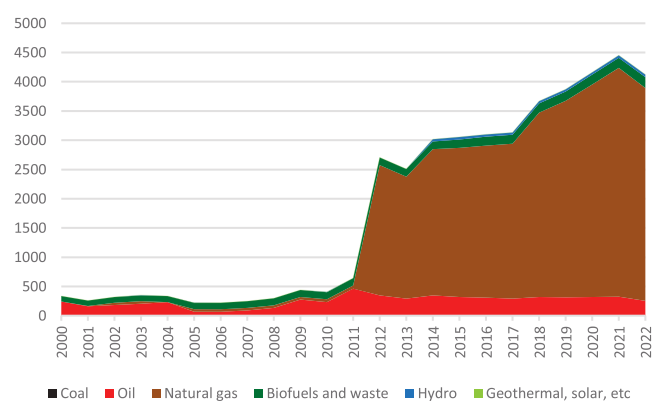


Figure 3.2. - Total Final Consumption (ktoe)

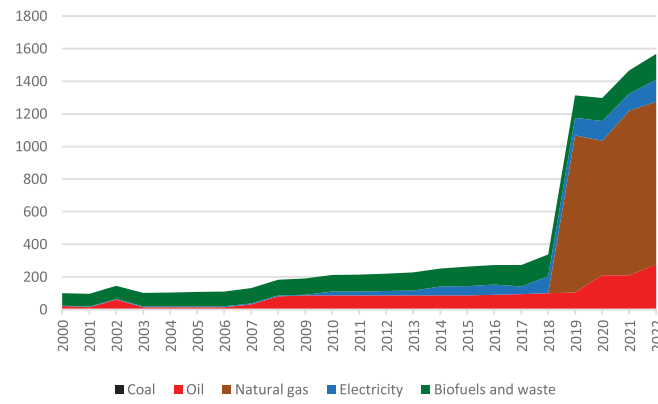


Figure 3.3. - Electricity Generation by Source (GWh)

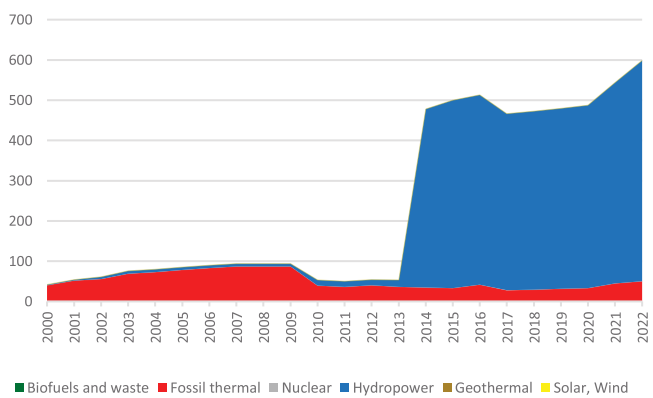


Figure 3.4. - Fuel Shares of Total Final Consumption

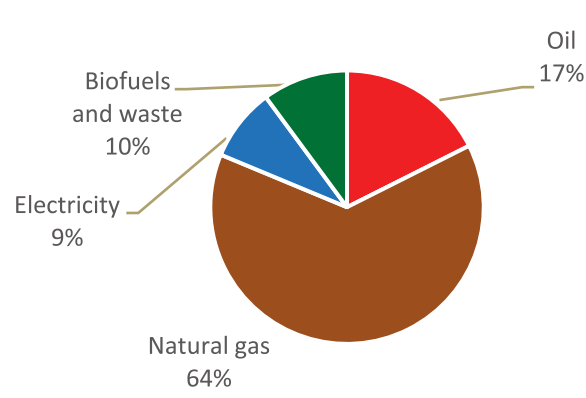


Figure 3.5. - Electricity Consumption by Sector

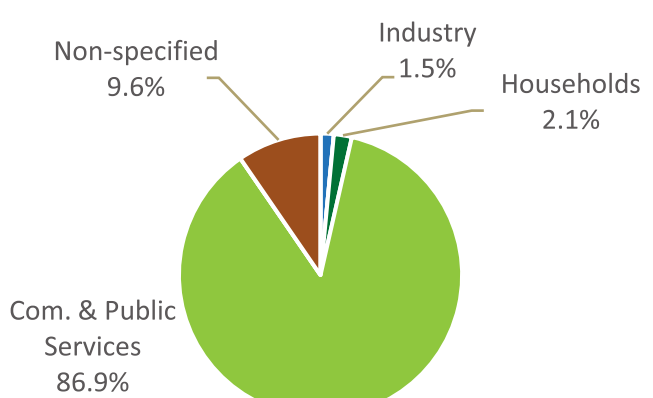
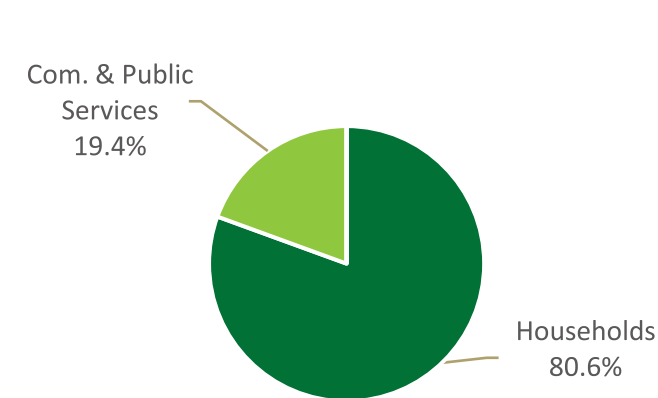


Figure 3.6. - Biofuels and Waste Consumption by Sector





Equatorial Guinea
Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Natural Gas	Biofuels and waste	Hydro	Electricity	Total of all energy sources
Production	5502,79	-	5953,58	182,51	47,18	-	11686,05
Imports (+)	-	207,13	-	-	-	-	207,13
Exports (-)	-5752,81	-595,16	-3979,19	-	-	-	-10327,15
International Marine Bunkers (-)	-	-10,27	-	-	-	-	-10,27
International Aviation Bunkers (-)	-	-26,04	-	-	-	-	-26,04
Stock Changes (+ draw, - build)	943,90	-17,69	-331,04	-	-	-	595,18
TOTAL PRIMARY ENERGY SUPPLY	693,89	-442,03	1643,35	182,51	47,18	-30,71	2124,89
Transfers : Origin (-) and Destination (+)	-701,62	716,48	-	-	-	-	14,86
Statistical Difference	-7,73	-3,38	13,60	0,92	0.00	-2375,22	-2371,81
TRANSFORMATION Inputs (-) and Outputs (+)	-	-2,09	-284,11	-22,91	-47,18	135,84	-220,45
Electricity plants	-	-2,09	-284,11	-	-47,18	135,84	-197,54
CHP Plants	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	4705,74	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-22,91	-	-	-22,91
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	347,13	-	-	3,07	350,20
Losses	-	-	-	-	-	12,26	12,26
FINAL CONSUMPTION	-	275,75	998,51	158,67	0.00	2495,73	3928,65
Industry	-	72,00	998,51	0.00	-	37,63	1108,13
Transport	-	152,77	-	0.00	-	-	152,77
Households	-	29,81	-	127,83	-	51,30	208,93
Commercial and public services	-	14,83	-	30,84	-	2167,64	2213,31
Agriculture, Forestry and Fishing	-	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	239,1	239,17
Non-Energy Use	-	6,34	-	-	-	-	6,34

INDICATORS AND ENERGY BALANCES

Eritrea
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

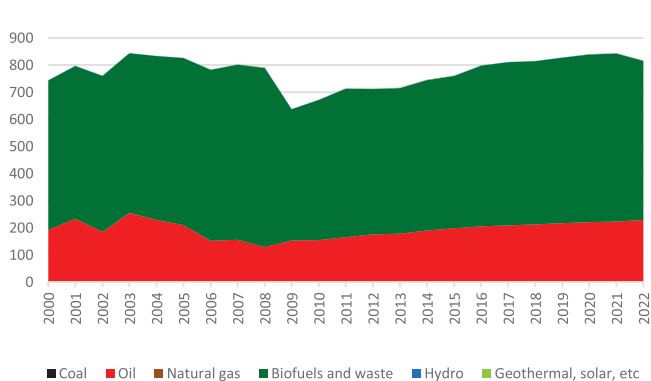


Figure 3.2. - Total Final Consumption (ktoe)

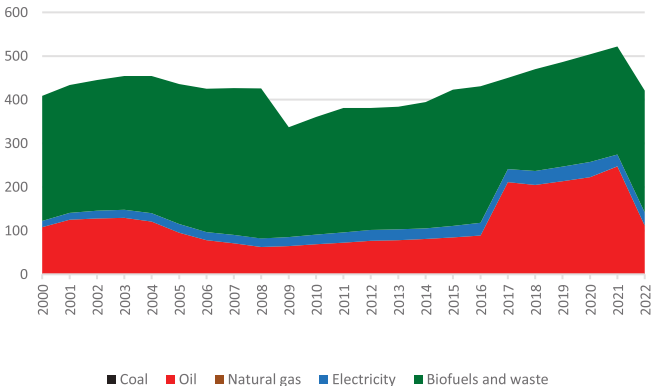


Figure 3.3. - Electricity Generation by Source (GWh)

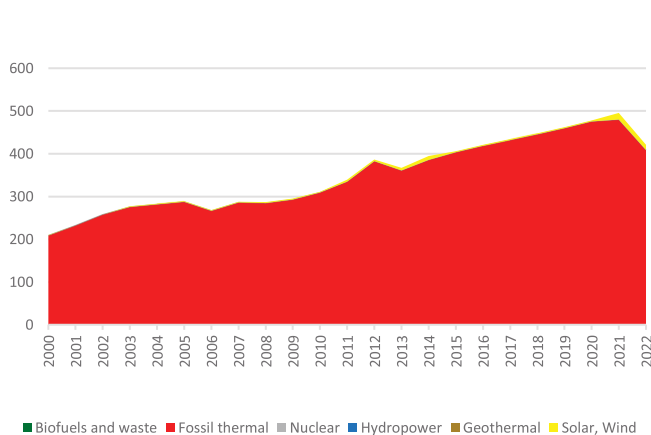


Figure 3.4. - Fuel Shares of Total Final Consumption

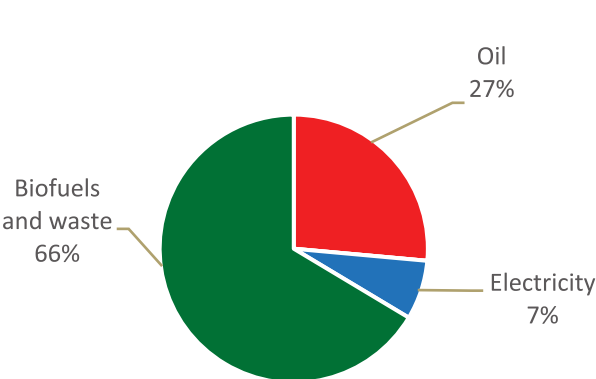


Figure 3.5. - Electricity Consumption by Sector

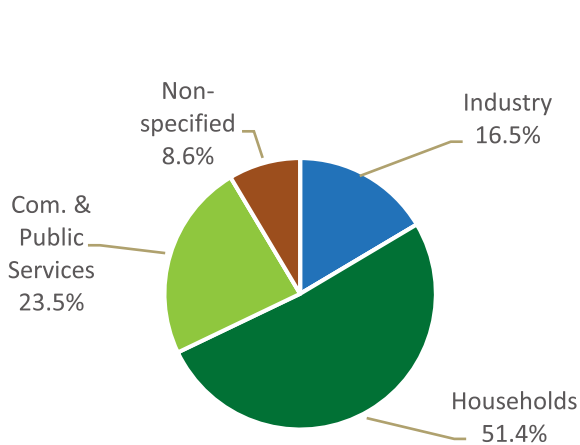
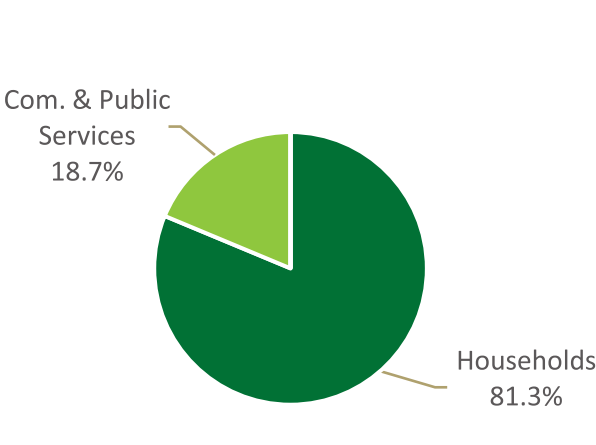


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Solar	Wind	Electricity	Total of all energy sources
Production	-	586,45	0,85	0,19	-	587,49
Imports (+)	246,78	-	-	-	-	246,78
Exports (-)	-	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-5,28	-	-	-	-	-5,28
Stock Changes (+ draw, - build)	-12,64	-	-	-	-	-12,64
TOTAL PRIMARY ENERGY SUPPLY	228,86	586,45	0,85	0,19	-18,53	816,35
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	0,21	-14,20	-	-	0,32	-13,67
TRANSFORMATION Inputs (-) and Outputs (+)	-117,44	-321,31	-0,85	-0,19	36,21	-403,58
Electricity plants	-117,44	-92,61	-0,85	-0,19	36,21	-82,27
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-321,31	-	-	-	-321,31
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	1,59	1,59
Losses	-	-	-	-	4,21	4,21
FINAL CONSUMPTION	111,21	279,34	-	-	30,09	420,64
Industry	7,78	0,93	-	-	4,95	12,73
Transport	77,37	-	-	-	-	77,37
Households	13,01	227,06	-	-	15,47	255,54
Commercial and public services	4,07	52,28	-	-	7,08	63,44
Agriculture, Forestry and Fishing	1,00	-	-	-	-	1,00
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	2,58	2,58
Non-Energy Use	7,99	-	-	-	-	7,99

INDICATORS AND ENERGY BALANCES



Figure 3.1. - Total Primary Energy Supply (ktoe)

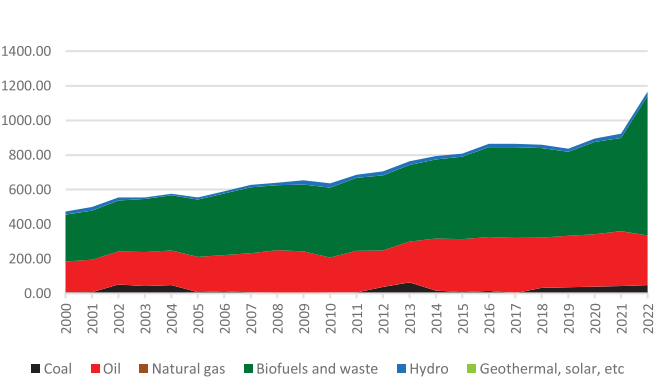


Figure 3.2. - Total Final Consumption (ktoe)

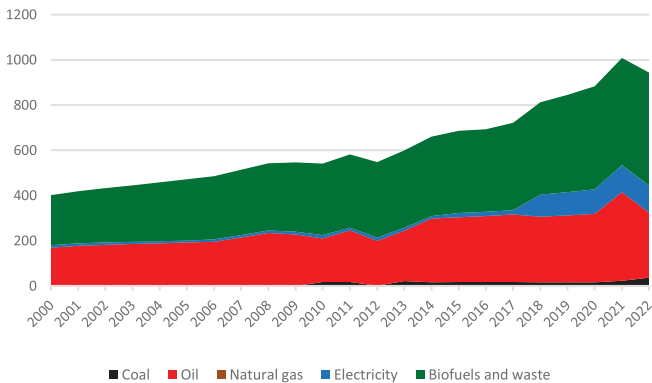


Figure 3.3. - Electricity Generation by Source (GWh)

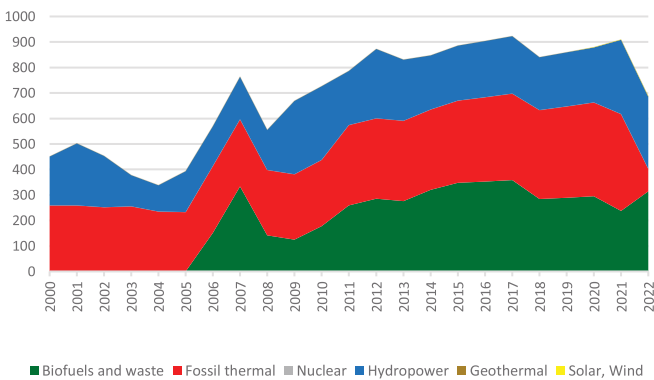


Figure 3.4. - Fuel Shares of Total Final Consumption

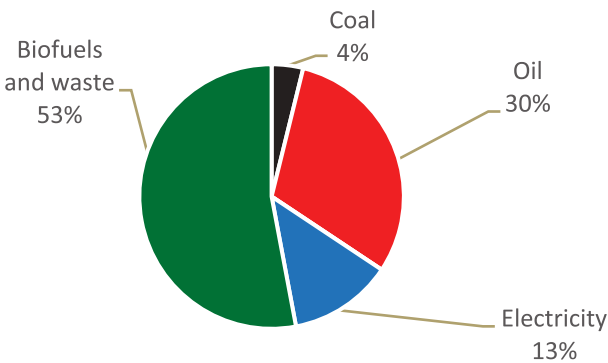


Figure 3.5. - Electricity Consumption by Sector

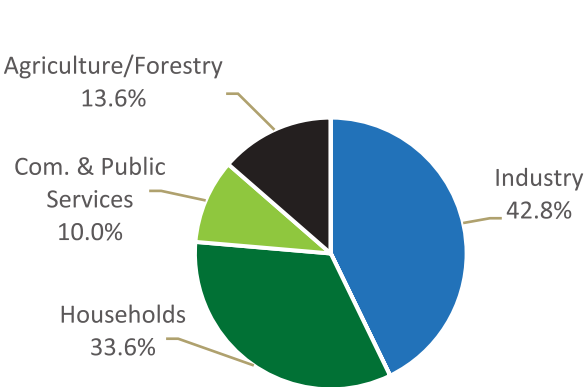
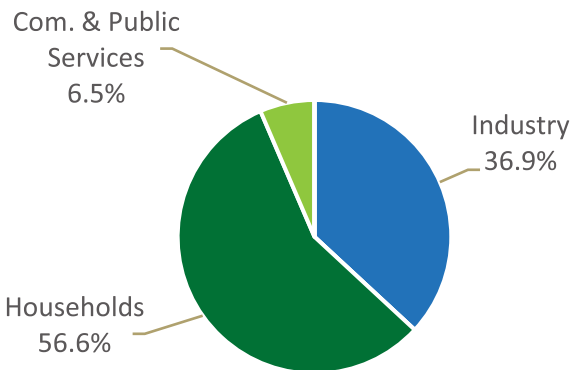


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	176,65	-	2183,22	24,28	0,18	-	8266,96
Imports (+)	47,14	288,19	-	-	-	77,56	412,89
Exports (-)	-176,65	-	-	-	-	-	-176,65
International Marine Bunkers (-)	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-0,95	-	-	-	-	-0,95
Stock Changes (+ draw, - build)	-	0,56	-	-	-	-	0,56
TOTAL PRIMARY ENERGY SUPPLY	47,14	287,80	2183,22	24,28	0,18	77,56	8502,81
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	-0,02	0,03	124,40	-	-	1,99	-0,47
TRANSFORMATION Inputs (-) and Outputs (+)	-10,78	0,07	-1895,44	-24,28	-0,18	59,14	-717,08
Electricity plants	-4,01	0,07	-1895,44	-24,28	-0,18	59,14	30,74
CHP Plants	-6,78	-	-	-	-	-	-657,58
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-	-90,25
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	64,99	-	-	1,03	1,03
Losses	-	-	65,50	-	-	13,76	13,76
FINAL CONSUMPTION	-	287,84	7327,27	-	-	119,91	7771,40
Industry	-	1,10	2704,04	-	-	51,33	2792,82
Transport	-	279,14	-	-	-	0,00	279,14
Households	-	7,05	4149,78	-	-	40,24	4197,07
Commercial and public services	-	0,41	473,46	-	-	12,04	485,90
Agriculture, Forestry and Fishing	-	0,14	-	-	-	16,31	16,45
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	0,02
Non-Energy Use	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES

Ethiopia
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

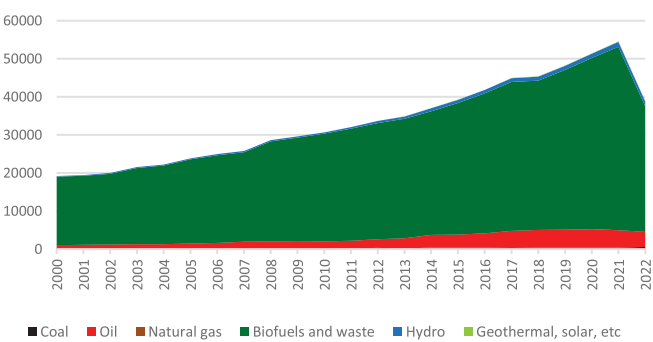


Figure 3.2. - Total Final Consumption (ktoe)

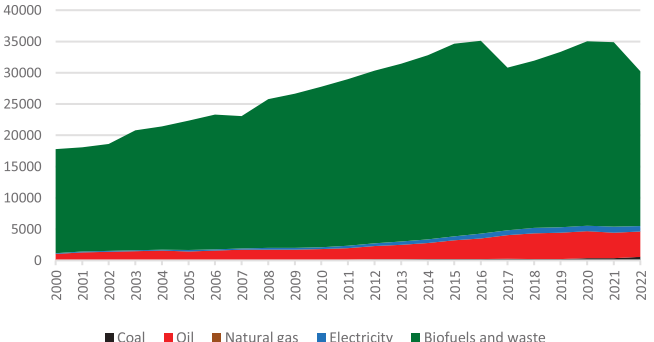


Figure 3.3. - Electricity Generation by Source (GWh)

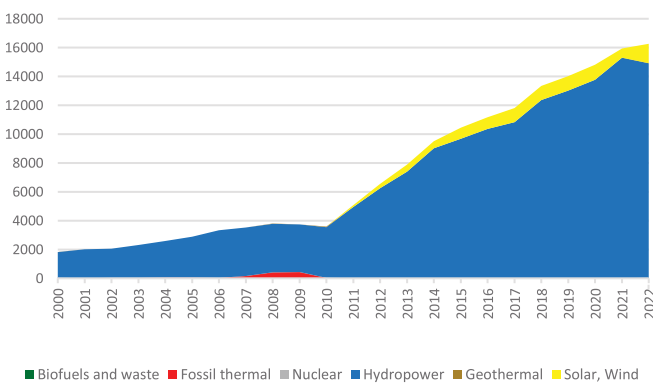


Figure 3.4. - Fuel Shares of Total Final Consumption

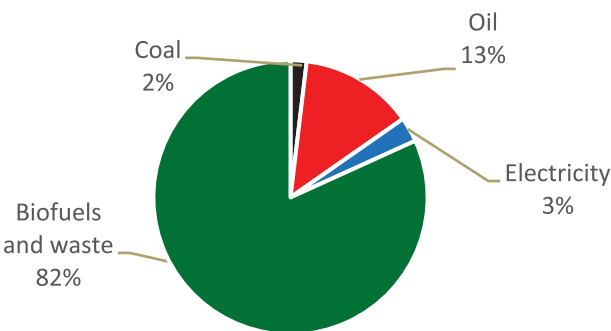


Figure 3.5. - Electricity Consumption by Sector

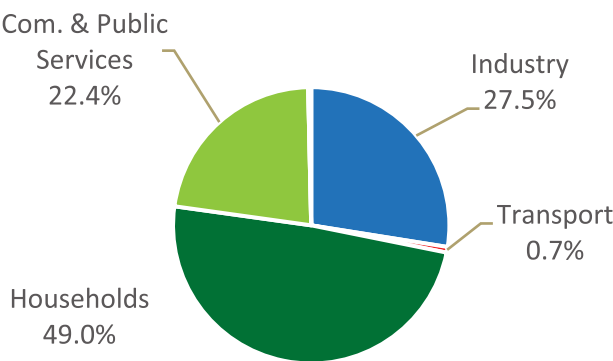
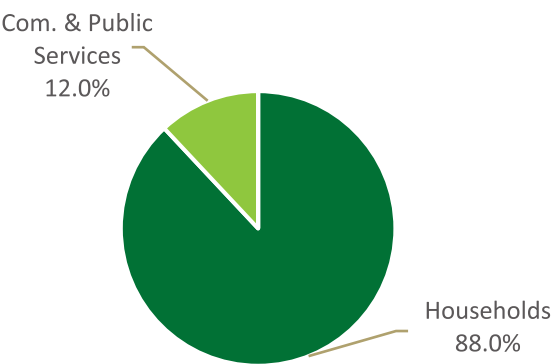


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Hydro	Solar	Wind	Electricity	Total of all energy sources
Production	203,13	-	32987,0	1279,87	45,83	70,33	-	34586,23
Imports (+)	276,07	4721,01	-	-	-	-	-	4997,08
Exports (-)	-	-	-	-	-	-	-143,66	-143,66
International Marine Bunkers (-)	-	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-692,55	-	-	-	-	-	-692,55
Stock Changes (+ draw, - build)	93,67	-81,10	2,84	-	-	-	-	15,41
TOTAL PRIMARY ENERGY SUPPLY	572,86	3947,36	32989,92	1279,87	45,83	70,33	-143,66	38762,50
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-
Statistical Difference	-0,22	-107,23	-1116,01	-	-	-	34,21	-1189,25
TRANSFORMATION Inputs (-) and Outputs (+)	-	-	-8968,14	-1279,87	-45,83	-70,33	1398,53	-8965,63
Electricity plants	-	-	-1114,40	-1279,87	-45,83	-70,33	1398,53	-1111,89
CHP Plants	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-7853,74	-	-	-	-	-7853,74
Transformation not elsewhere specified	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-	26,12	26,12
Losses	-	-	402,18	-	-	-	311,69	713,88
FINAL CONSUMPTION	573,09	4054,59	24735,61	-	-	-	882,84	30246,12
Industry	573,09	332,60	-	-	-	-	242,84	1148,52
Transport	-	3616,30	-	-	-	-	5,80	3622,11
Households	-	105,68	21771,77	-	-	-	432,93	22310,39
Commercial and public services	-	-	2963,84	-	-	-	198,17	3162,01
Agriculture, Forestry and Fishing	-	-	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	3,10	3,1
Non-Energy Use	-	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES

Gabon
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

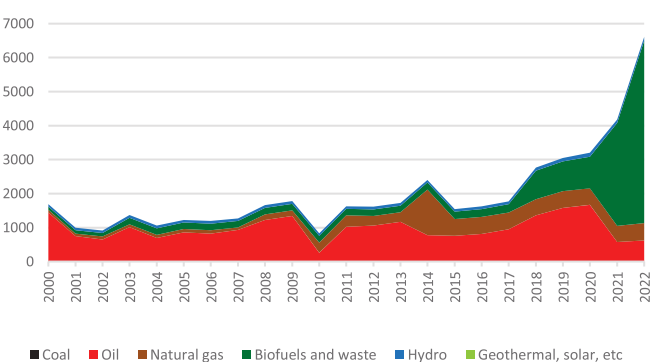


Figure 3.2. - Total Final Consumption (ktoe)

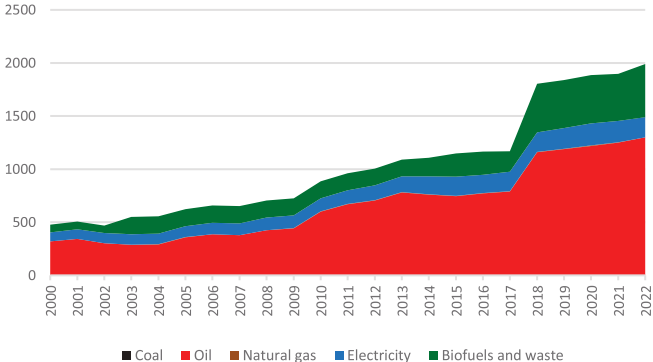


Figure 3.3. - Electricity Generation by Source (GWh)

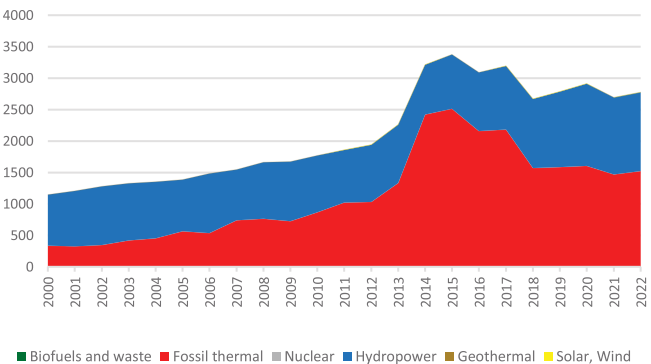


Figure 3.4. - Fuel Shares of Total Final Consumption

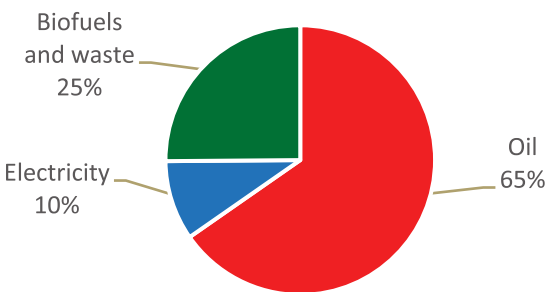


Figure 3.5. - Electricity Consumption by Sector

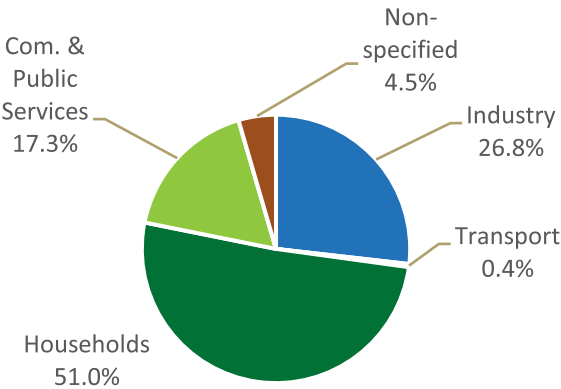
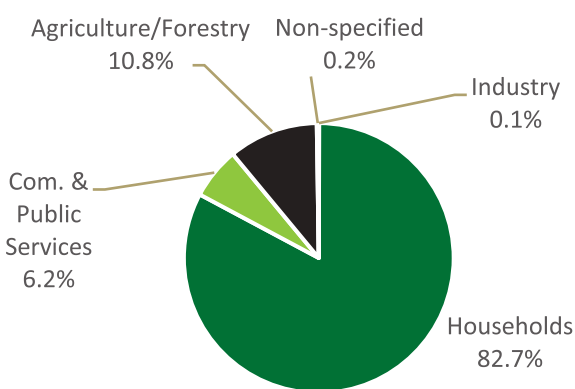


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil Products	Natural Gas	Biofuels & Waste	Hydro	Solar	Other Source	Electricity	Total of all energy sources
Production	12628,37	-	509,87	5369,00	108,36	0,23	549,76	-	19165,59
Imports (+)	-	309,63	-	-	-	-	-	-	309,63
Exports (-)	-11654,63	-278,61	-	-	-	-	-	-	-11933,23
Intl. Marine Bunkers (-)	-	-166,73	-	-	-	-	-	-	-166,73
Intl. Aviation Bunkers (-)	-	-34,54	-	-	-	-	-	-	-34,54
Stock Changes (+ draw, - build)	-	-183,28	-	-	-	-	-	-	-183,28
TOTAL PRIMARY ENERGY SUPPLY	973,74	-353,52	509,87	5369,00	108,36	0,23	549,76	0.00	7157,43
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-	-
Statistical difference	-0,61	-4,09	-	-8,09	-	-	-	-11,99	-24,79
TRANSFORMATION Inputs (-) and Outputs (+)	-974,35	804,32	-509,87	-1643,90	-108,36	-0,23	-549,76	833,47	-2148,67
Electricity plants	-	-75,28	-509,87	-1202,00	-108,36	-0,23	-549,76	833,47	-1612,02
CHP Plants	-	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-
Oil Refineries	-974,35	879,60	-	-	-	-	-	-	-94,75
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-441,90	-	-	-	-	-441,90
Transformation not elsewhere specified	-	-	-	-	-	-	-	-	-
Energy Sector Own Use	625,35	130,71	-	-	-	-	-	606,81	737,52
Losses	-	2,25	-	-	-	-	-	48,51	50,76
FINAL CONSUMPTION	-	321,93	-	3733,20	-	-	-	190,14	4245,27
Industry	-	164,69	-	1,93	-	-	-	50,95	217,58
Transport	-	70,49	-	-	-	-	-	0,71	71,21
Households	-	53,07	-	3089,21	-	-	-	96,94	3239,22
Com. & Public Service	-	14,56	-	231,22	-	-	-	32,95	278,72
Agriculture/Forestry	-	1,04	-	401,95	-	-	-	-	402,99
Others (Non Specified)	-	3,40	-	8,89	-	-	-	8,58	20,87
Non-Energy Use	-	14,67	-	-	-	-	-	-	14,67

INDICATORS AND ENERGY BALANCES

Gambia
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

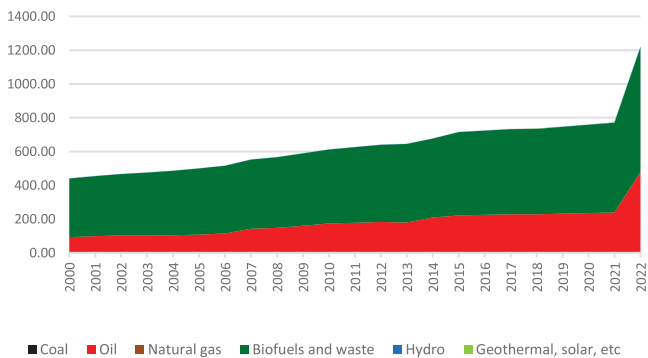


Figure 3.2. - Total Final Consumption (ktoe)

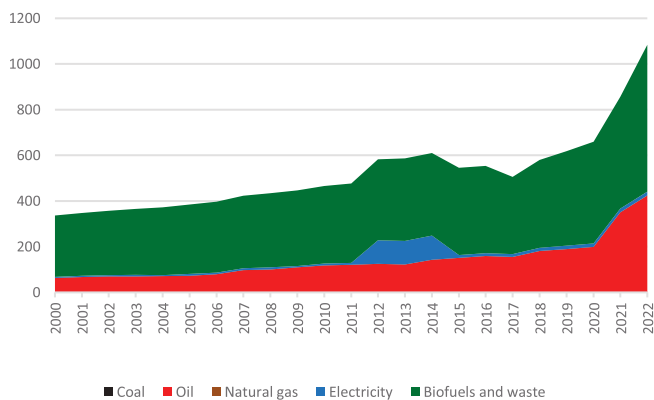


Figure 3.3. - Electricity Generation by Source (GWh)

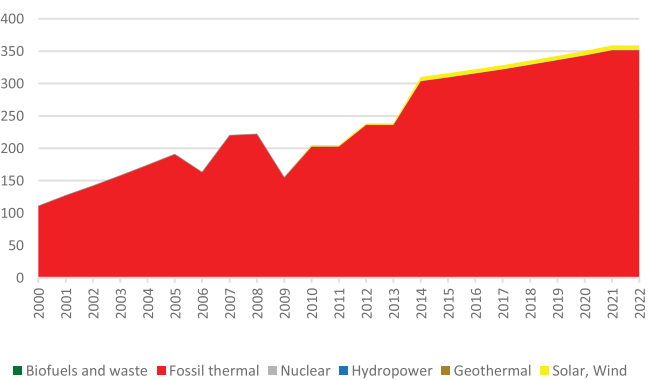


Figure 3.4. - Fuel Shares of Total Final Consumption

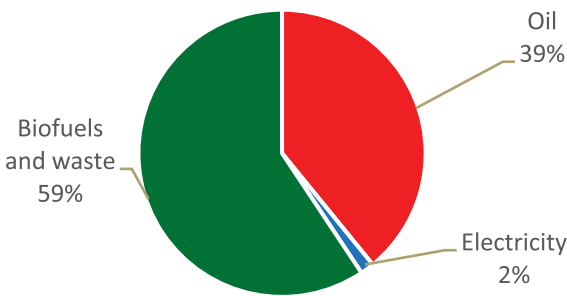


Figure 3.5. - Electricity Consumption by Sector

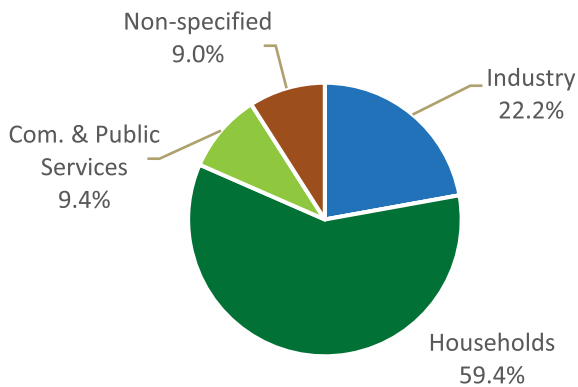
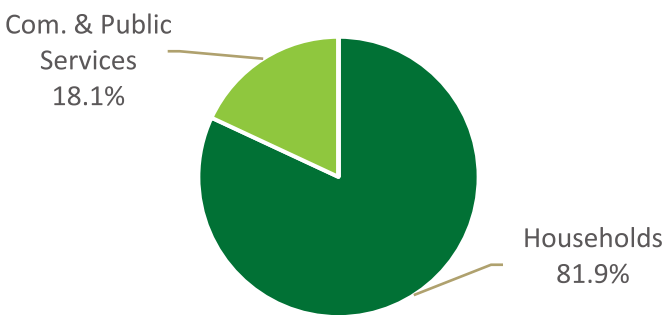


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	-	740,98	0,63	-	741,61
Imports (+)	285,80	-	-	-	285,80
Exports (-)	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-
International Aviation Bunkers (-)	-24,66	-	-	-	-24,66
Stock Changes (+ draw, - build)	216,80	-	-	-	216,80
TOTAL PRIMARY ENERGY SUPPLY	477,94	740,98	0,63	0.00	1219,54
Transfers : Origin (-) and Destination (+)	-	-	-	-	-
Statistical Difference	-3,19	-19,05	-	-0,24	-22,49
TRANSFORMATION Inputs (-) and Outputs (+)	-57,06	-116,75	-0,63	30,86	-143,58
Electricity plants	-57,06	-	-0,63	30,86	-26,83
CHP Plants	-	-	-	-	-
Heat Plants	-	-	-	-	-
Coke ovens	-	-	-	-	-
Blast furnaces	-	-	-	-	-
Oil Refineries	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-
Charcoal production plants	-	-116,75	-	-	-116,75
Transformation not elsewhere specified	-	-	-	-	-
Energy Sector Own Use	-	-	-	1,64	1,64
Losses	-	-	-	12,74	12,74
FINAL CONSUMPTION	424,07	643,28	-	16,73	1084,08
Industry	79,33	-	-	3,71	83,04
Transport	312,07	-	-	-	312,07
Households	6,62	527,11	-	9,94	543,67
Commercial and public services	3,56	116,17	-	1,57	121,30
Agriculture, Forestry and Fishing	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	-	-	1,51	1,51
Non-Energy Use	22,48	-	-	-	22,48

INDICATORS AND ENERGY BALANCES

Ghana
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

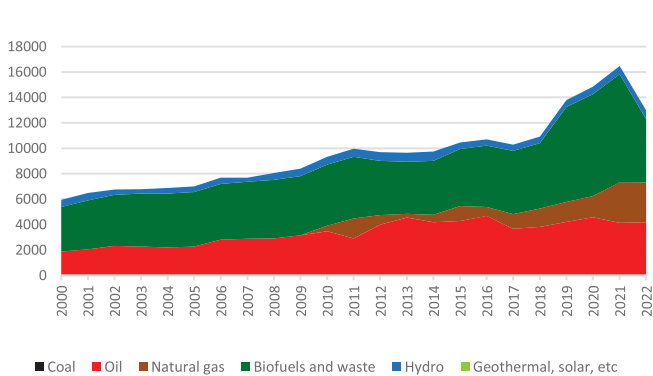


Figure 3.2. - Total Final Consumption (ktoe)

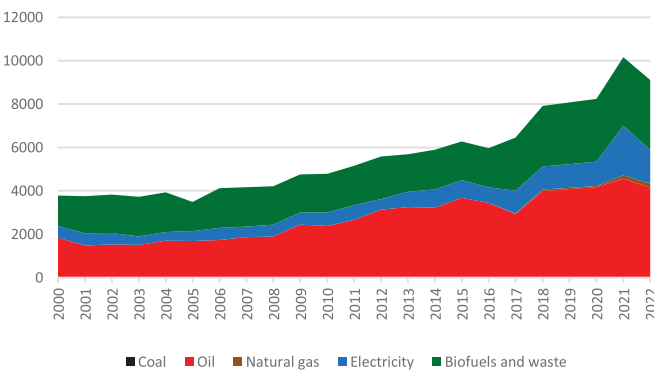


Figure 3.3. - Electricity Generation by Source (GWh)

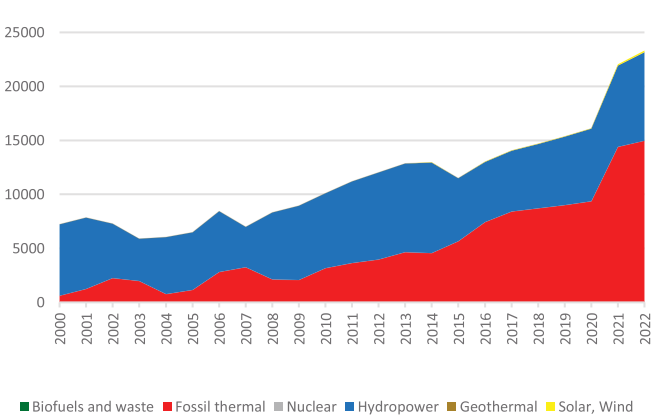


Figure 3.4. - Fuel Shares of Total Final Consumption

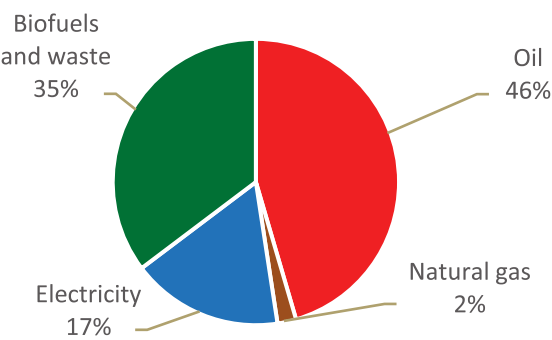


Figure 3.5. - Electricity Consumption by Sector

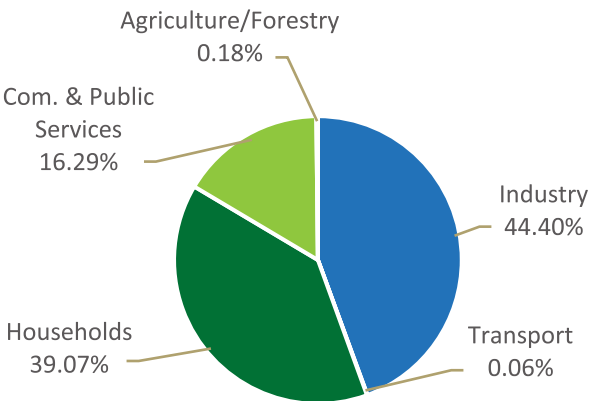
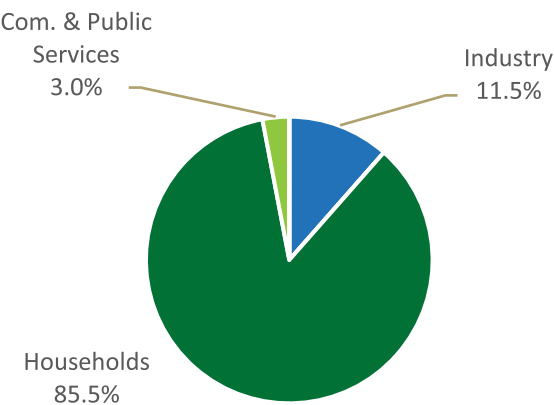


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Natural Gas	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	7256,72	-	2673,36	4967,31	704,37	13,88	-	15615,64
Imports (+)	31,20	4260,00	451,70	0,01	-	22,93	3,21	4746,12
Exports (-)	-7200,05	-13,3	-	-0,46	-	-53,63	-190,44	-7404,29
International Marine Bunkers (-)	-	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-198,61	-	-	-	-	-	-198,61
Stock Changes (+ draw, - build)	66,28	-9,98	-	-	-	-	-	56,30
TOTAL PRIMARY ENERGY SUPPLY	154,15	4038,07	3125,05	4966,85	704,37	13,88	-187,23	12815,16
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-
Statistical Difference	89,92	-168,30	28,66	0,01	-	-	31,29	-49,71
TRANSFORMATION Inputs (-) and Outputs (+)	-64,23	-10,10	-2903,83	-1750,19	-704,37	-13,88	2005,21	-3441,39
Electricity plants	-21,68	-49,95	-2903,83	-	-704,37	-13,88	2005,21	-1688,51
CHP Plants	-	-	-	-111,02	-	-	-	-96,67
Heat Plants	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-
Oil Refineries	-42,55	39,85	-	-	-	-	-	-2,69
Coal-to-liquids plants	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-1750,19	-	-	-	-1750,19
Transformation not elsewhere specified	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	50,84	-	-	-	-	25,59	76,43
Losses	-	0.00	-	-	-	-	229,91	229,91
FINAL CONSUMPTION	-	4145,43	192,57	3216,66	-	-	1562,49	9117,14
Industry	-	510,42	192,57	369,56	-	-	693,78	1766,33
Transport	-	3350,33	-	-	-	-	0,92	3351,25
Households	-	172,97	-	2750,32	-	-	610,51	3533,80
Commercial and public services	-	21,71	-	96,78	-	-	254,47	372,97
Agriculture, Forestry and Fishing	-	90,00	-	-	-	-	2,81	92,80
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	-	-
Non-Energy Use	-	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES

Guinea
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

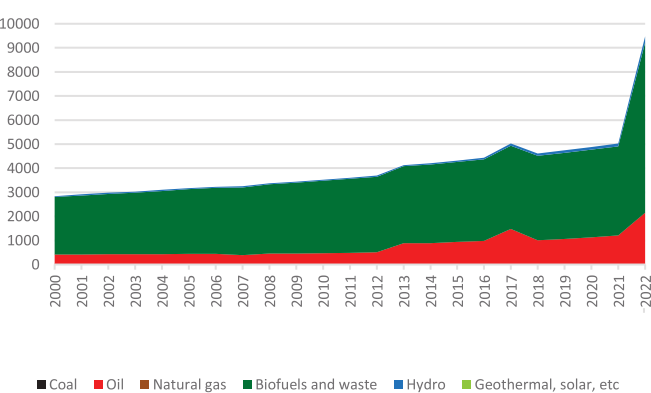


Figure 3.2. - Total Final Consumption (ktoe)

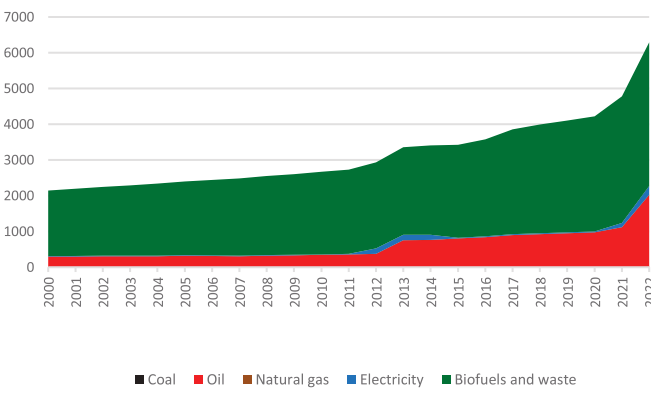


Figure 3.3. - Electricity Generation by Source (GWh)

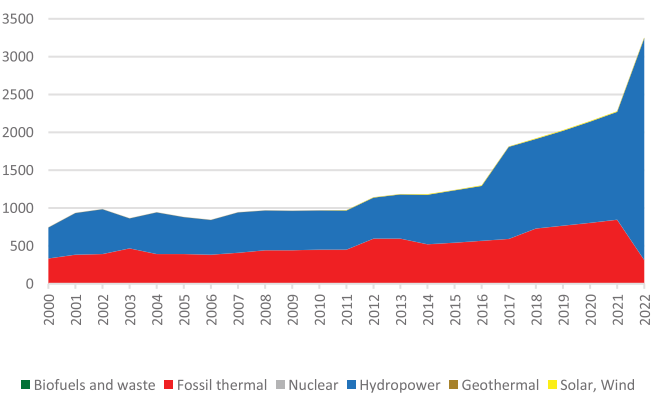


Figure 3.4. - Fuel Shares of Total Final Consumption

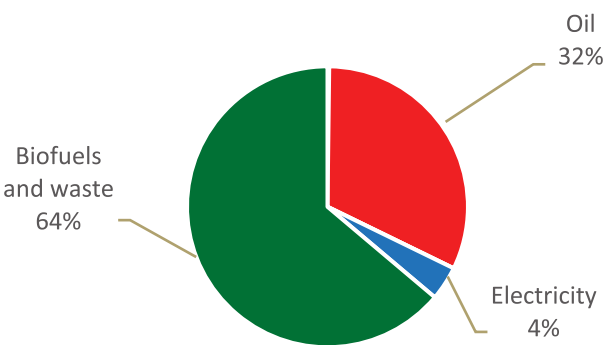


Figure 3.5. - Electricity Consumption by Sector

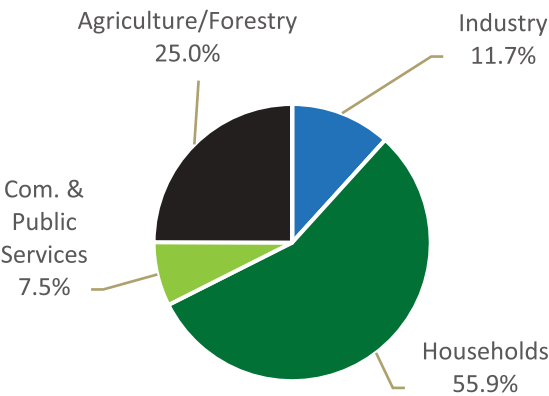
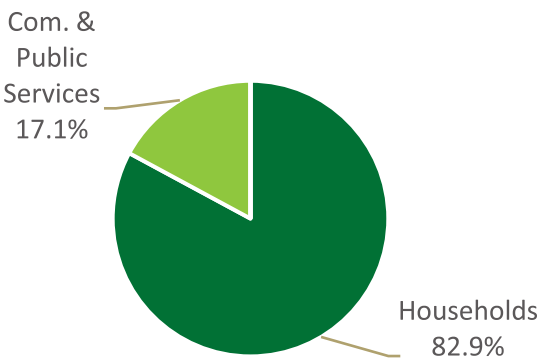


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	-	7068,61	252,02	0,79	-	7321,42
Imports (+)	12,37	2186,23	-	-	-	1,63	2200,23
Exports (-)	-	-	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-0,81	-	-	-	-	-0,81
Stock Changes (+ draw, - build)	-	-44,29	-	-	-	-	-44,29
TOTAL PRIMARY ENERGY SUPPLY	12,37	2141,13	7068,61	252,02	0,79	1,63	9476,56
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	-	23,06	-380,52	-	-	10,65	-346,81
TRANSFORMATION Inputs (-) and Outputs (+)	-	-103,02	-3431,98	-252,02	-0,79	279,82	-3507,98
Electricity plants	-	-103,02	-1895,44	-252,02	-0,79	279,82	-76,01
CHP Plants	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-3431,98	-	-	-	-3431,98
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	8,77	8,77
Losses	-	-	-	-	-	14,79	14,79
FINAL CONSUMPTION	12,37	2015,05	4017,16	-	-	247,25	6291,83
Industry	12,37	571,68	-	-	-	28,98	613,02
Transport	-	1430,46	-	-	-	0.00	1430,46
Households	-	7,90	3329,26	-	-	138,09	3475,25
Commercial and public services	-	2,13	687,90	-	-	18,48	708,51
Agriculture, Forestry and Fishing	-	-	-	-	-	61,70	61,70
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	-
Non-Energy Use	-	2,88	-	-	-	-	2,88

INDICATORS AND ENERGY BALANCES



Guinea-Bissau Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

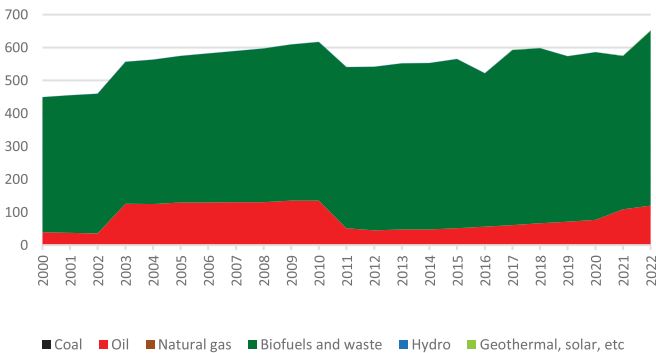


Figure 3.2. - Total Final Consumption (ktoe)

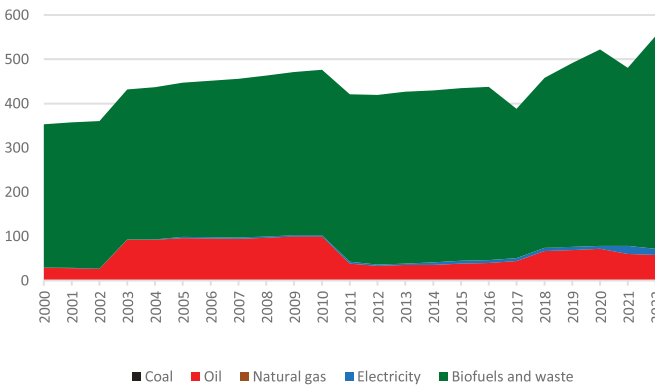


Figure 3.3. - Electricity Generation by Source (GWh)

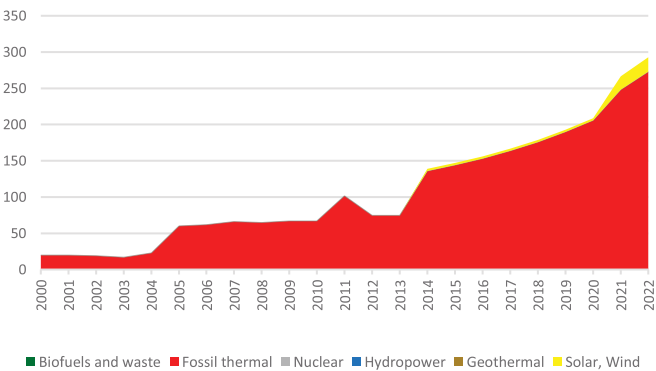


Figure 3.4. - Fuel Shares of Total Final Consumption

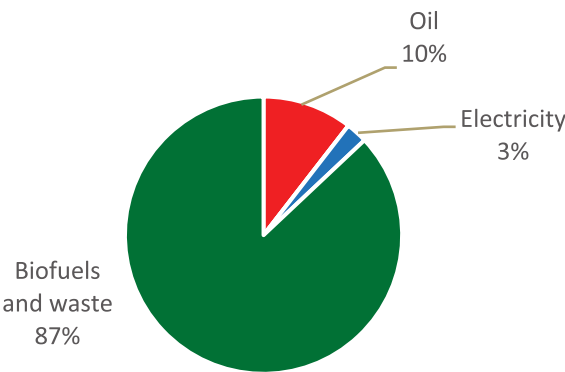


Figure 3.5. - Electricity Consumption by Sector

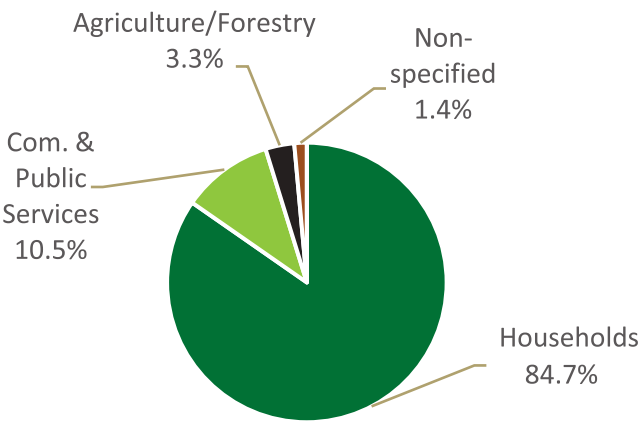
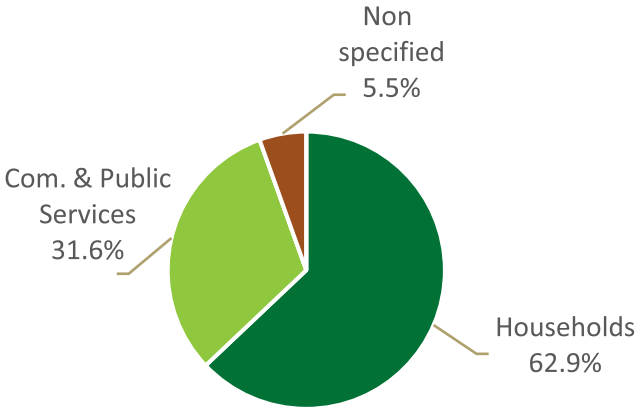


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	-	531,19	1,73	-	532,92
Imports (+)	118,81	-	-	-	118,81
Exports (-)	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-
International Aviation Bunkers (-)	-	-	-	-	-
Stock Changes (+ draw, - build)	0,96	-	-	-	0,96
TOTAL PRIMARY ENERGY SUPPLY	119,77	531,19	1,73	0,00	652,69
Transfers : Origin (-) and Destination (+)	-	-	-	-	-
Statistical Difference	0,49	2,64	-	-0,98	2,15
TRANSFORMATION Inputs (-) and Outputs (+)	-61,28	-47,56	-1,73	25,19	-85,38
Electricity plants	-60,17	-	-1,73	25,19	-36,71
CHP Plants	-	-	-	-	-
Heat Plants	-	-	-	-	-
Coke ovens	-	-	-	-	-
Blast furnaces	-	-	-	-	-
Oil Refineries	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-
Charcoal production plants	-	-47,56	-	-	-47,56
Transformation not elsewhere specified	-1,12	-	-	-	-1,12
Energy Sector Own Use	-	-	-	5,59	5,59
Losses	-	-	-	6,80	6,80
FINAL CONSUMPTION	57,99	481,00	-	13,78	552,77
Industry	8,13	-	-	-	8,13
Transport	47,75	-	-	-	47,75
Households	2,05	302,73	-	11,67	316,45
Commercial and public services	-	151,93	-	1,45	153,39
Agriculture, Forestry and Fishing	-	-	-	0,46	0,46
Non-specified (HH, Com. & PS., Agri.)	0,06	26,33	-	0,20	26,59
Non-Energy Use	-	-	-	-	-

INDICATORS AND ENERGY BALANCES

Kenya
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

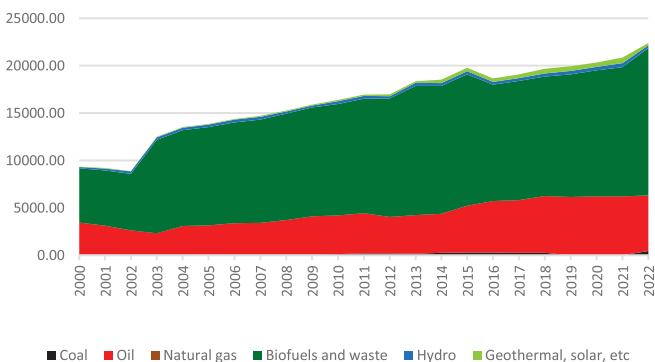


Figure 3.2. - Total Final Consumption (ktoe)

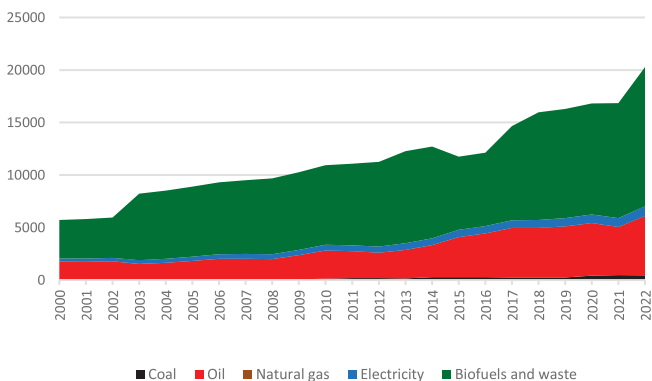


Figure 3.3. - Electricity Generation by Source (GWh)

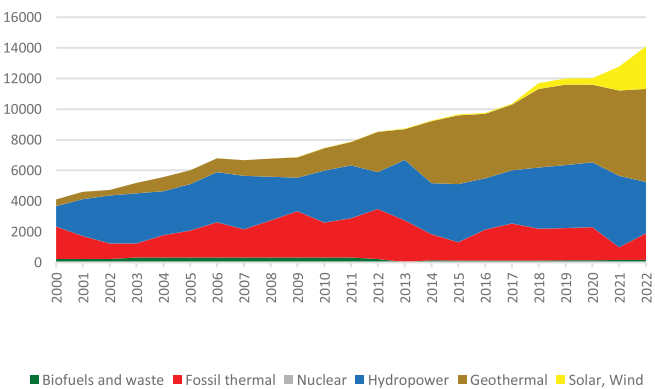


Figure 3.4. - Fuel Shares of Total Final Consumption

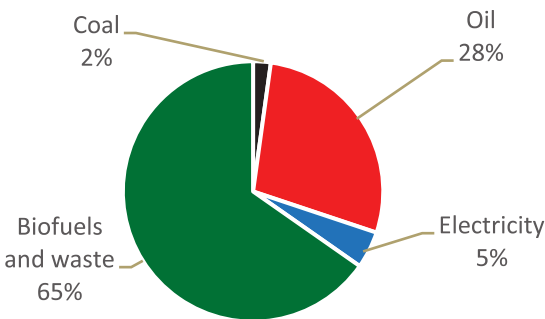


Figure 3.5. - Electricity Consumption by Sector

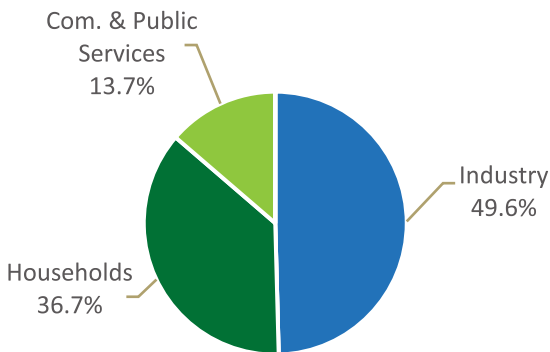
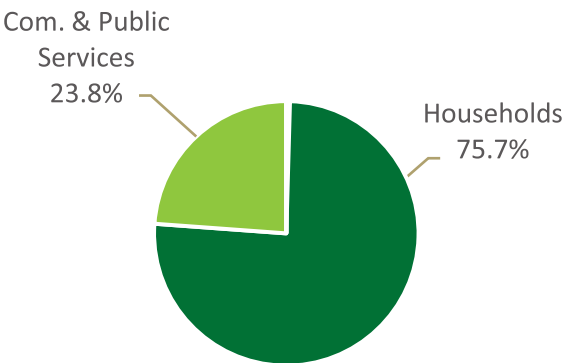


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Hydro	Geothermal	Solar	Wind	Electricity	Total of all energy sources
Production	-	-	15571,64	287,52	5218,58	36,29	202,69	-	21316,73
Imports (+)	719,92	5113,57	-	-	-	-	-	-	5833,48
Exports (-)	-4,29	-54,64	-	-	-	-	-	-	-58,93
International Marine Bunkers (-)	-	-52,60	-	-	-	-	-	-	-52,60
International Aviation Bunkers (-)	-	-659,37	-	-	-	-	-	-	-659,37
Stock Changes (+ draw, - build)	-270,52	1505,41	-	-	-	-	-	-	1234,89
TOTAL PRIMARY ENERGY SUPPLY	445,11	5852,37	15571,64	287,52	5218,58	36,29	202,69	-108,94	27614,21
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-	-
Statistical Difference	0,41	2,18	191,26	-	-	-	-	-33,16	160,70
TRANSFORMATION Inputs (-) and Outputs (+)	-	-183,89	-2141,48	-287,52	-5218,58	-36,29	-202,69	1198,28	-6872,18
Electricity plants	-	-183,89	-	-287,52	-5218,58	-36,29	-202,69	1198,28	-4730,70
CHP Plants	-	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-2141,48	-	-	-	-	-	-2141,48
Transformation not elsewhere specified	-	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	1,94	-	-	-	-	-	9,26	11,20
Losses	-	-	-	-	-	-	-	290,38	290,38
FINAL CONSUMPTION	444,69	5664,36	13238,90	-	-	-	-	931,79	20279,75
Industry	444,69	253,84	58,83	-	-	-	-	462,00	1219,36
Transport	-	3733,98	-	-	-	-	-	-	3733,98
Households	-	406,27	10024,49	-	-	-	-	342,24	10773,00
Commercial and public services	-	978,74	3155,58	-	-	-	-	127,55	4261,87
Agriculture, Forestry and Fishing	-	161,03	-	-	-	-	-	-	161,03
Non-specified (HH, Com. & PS., Agri.)	-	18,52	-	-	-	-	-	-	18,52
Non-Energy Use	-	111,98	-	-	-	-	-	-	111,98

INDICATORS AND ENERGY BALANCES



Lesotho
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

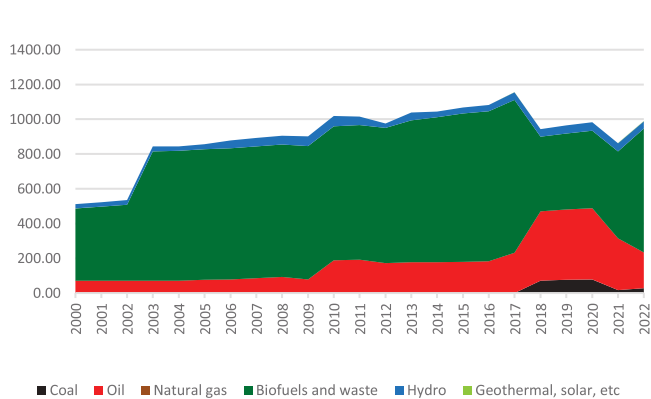


Figure 3.2. - Total Final Consumption (ktoe)

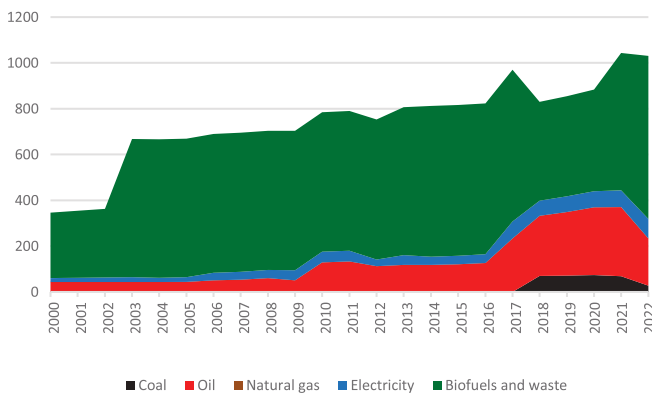


Figure 3.3. - Electricity Generation by Source (GWh)

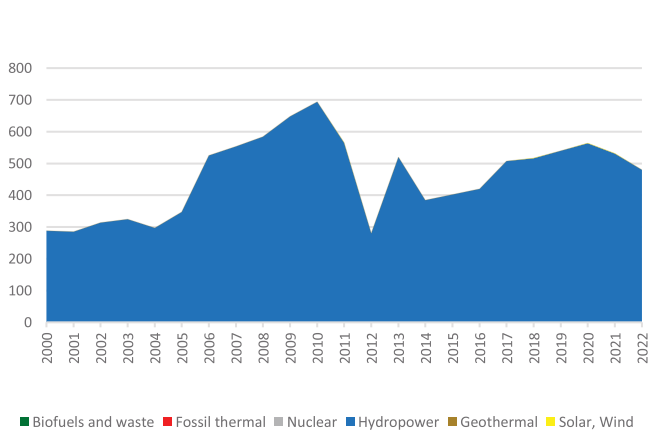


Figure 3.4. - Fuel Shares of Total Final Consumption

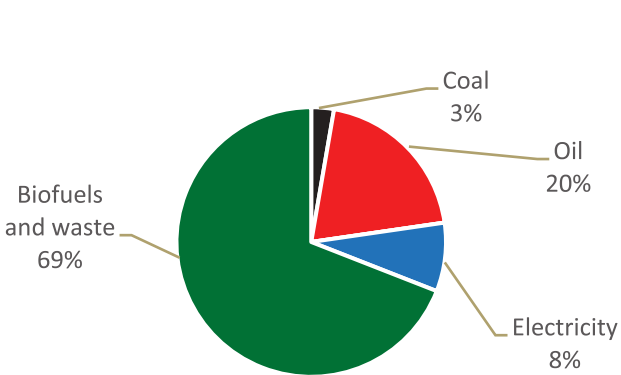


Figure 3.5. - Electricity Consumption by Sector

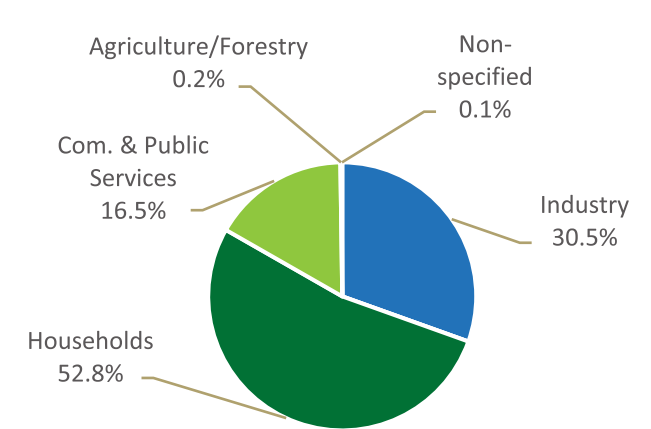
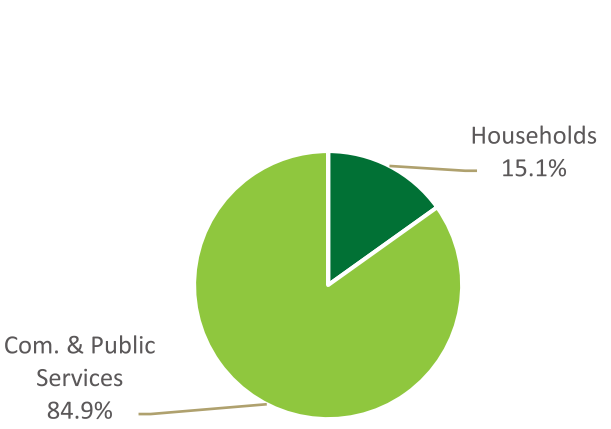


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	-	713,25	41,23	-	-	754,48
Imports (+)	27,99	206,21	-	-	-	43,66	277,85
Exports (-)	-	-	-	-	-	-0,06	-0,06
International Marine Bunkers (-)	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-0,95	-	-	-	-	-
Stock Changes (+ draw, - build)	-	0,56	-	-	-	-	-
TOTAL PRIMARY ENERGY SUPPLY	27,99	206,21	713,25	41,23	0,00	43,60	1032,28
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	-	-0,11	1,04	-	-	-0,01	0,92
TRANSFORMATION Inputs (-) and Outputs (+)	-	-0,21	-0,07	-41,23	-	41,30	-0,21
Electricity plants	-	-0,21	-	-41,23	-	41,30	-0,14
CHP Plants	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-0,07	-	-	-	-0,07
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-	-
Losses	-	-	-	-	-	-	-
FINAL CONSUMPTION	-	206,11	712,13	-	-	84,91	1031,15
Industry	-	75,56	-	-	-	25,87	102,13
Transport	-	98,37	-	-	-	-	98,37
Households	-	29,14	107,78	-	-	44,82	182,73
Commercial and public services	-	3,05	604,36	-	-	14,02	647,74
Agriculture, Forestry and Fishing	-	-	-	-	-	0,14	0,14
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	0,05	0,05
Non-Energy Use	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES

Liberia
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

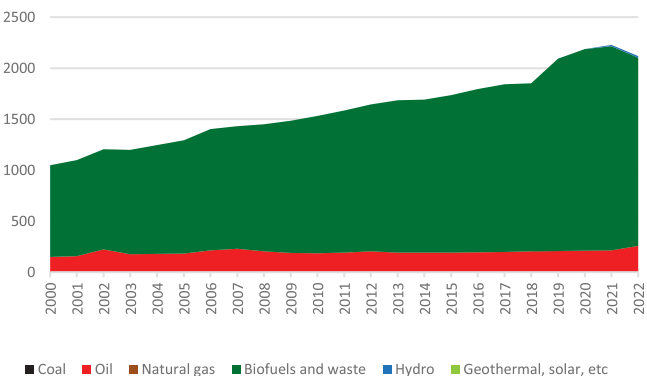


Figure 3.2. - Total Final Consumption (ktoe)

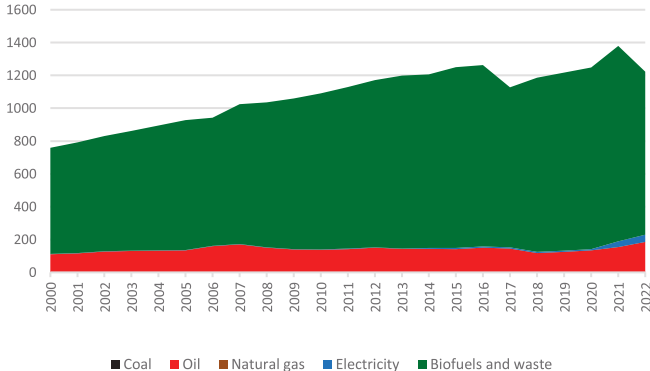


Figure 3.3. - Electricity Generation by Source (GWh)

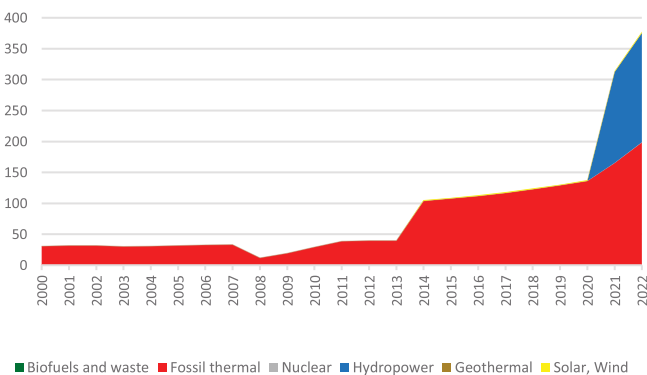


Figure 3.4. - Fuel Shares of Total Final Consumption

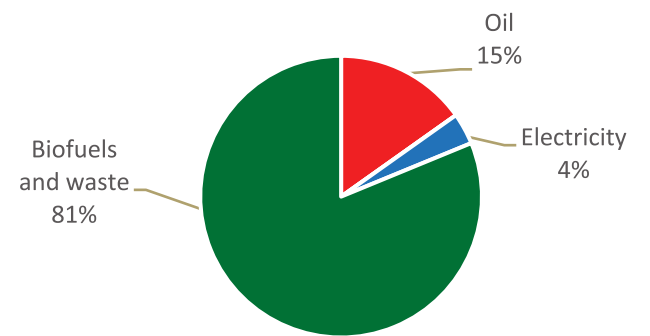


Figure 3.5. - Electricity Consumption by Sector

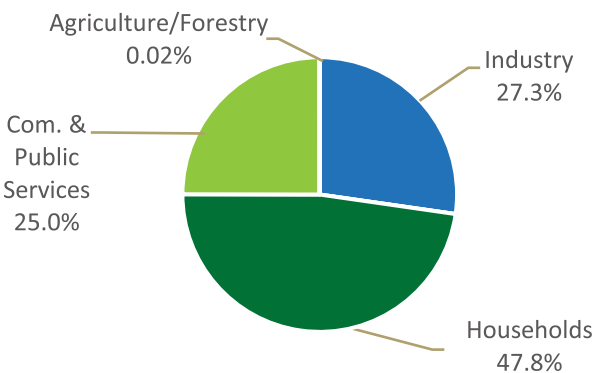
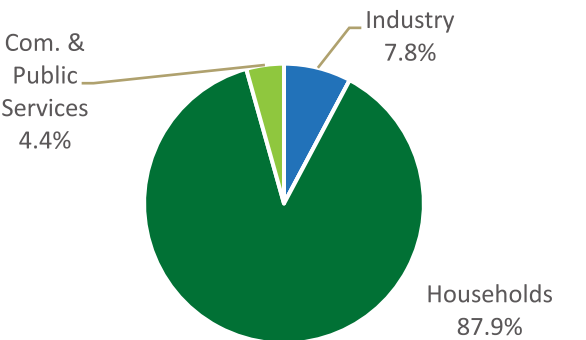


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	1845,34	15,20	0,15	-	1860,69
Imports (+)	262,82	-	-	-	22,05	284,87
Exports (-)	-	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-2,69	-	-	-	-	-2,69
Stock Changes (+ draw, - build)	-2,12	-	-	-	-	-2,12
TOTAL PRIMARY ENERGY SUPPLY	258,01	1845,34	15,20	0,15	22,05	2140,76
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	1,44	0,13	-	-	1,53	3,10
TRANSFORMATION Inputs (-) and Outputs (+)	-71,06	-852,70	-15,20	-0,15	32,43	-906,68
Electricity plants	-71,06	-92,61	-15,20	-0,15	32,43	-53,98
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-852,70	-	-	-	-852,70
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	1,79	1,79
Losses	-	-	-	-	7,02	7,02
FINAL CONSUMPTION	185,51	992,51	-	-	44,15	1222,17
Industry	48,03	77,28	-	-	12,04	137,35
Transport	118,00	-	-	-	-	118,00
Households	3,57	872,02	-	-	21,09	896,68
Commercial and public services	7,00	43,21	-	-	11,02	61,23
Agriculture, Forestry and Fishing	6,72	-	-	-	0,01	6,73
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-
Non-Energy Use	2,18	-	-	-	-	2,18

INDICATORS AND ENERGY BALANCES

Libya
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

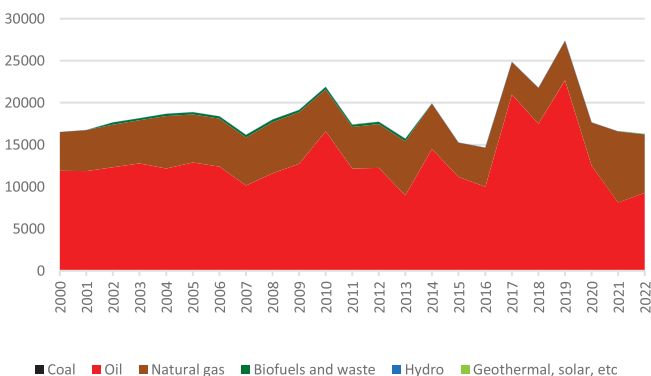


Figure 3.2. - Total Final Consumption (ktoe)

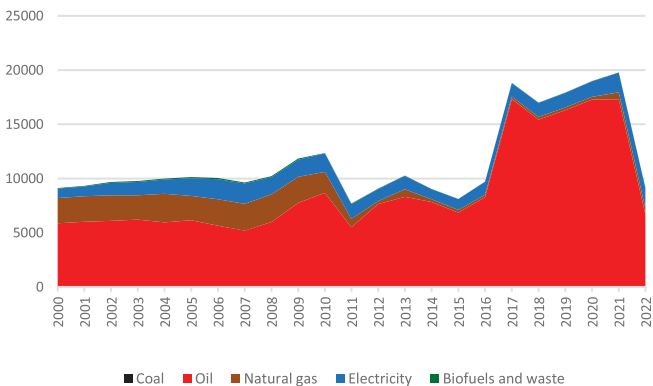


Figure 3.3. - Electricity Generation by Source (GWh)

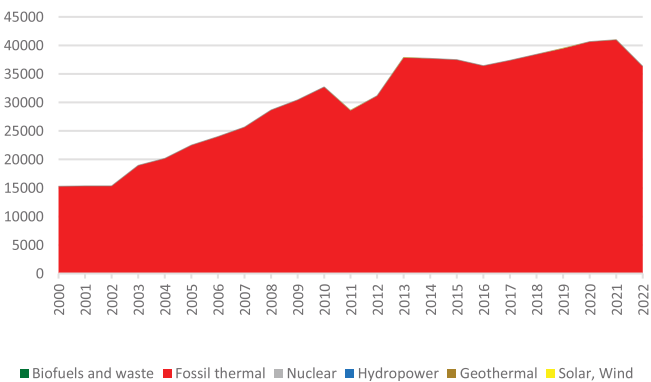


Figure 3.4. - Fuel Shares of Total Final Consumption

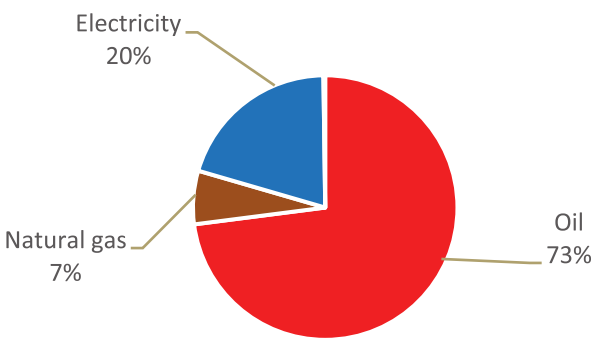


Figure 3.5. - Electricity Consumption by Sector

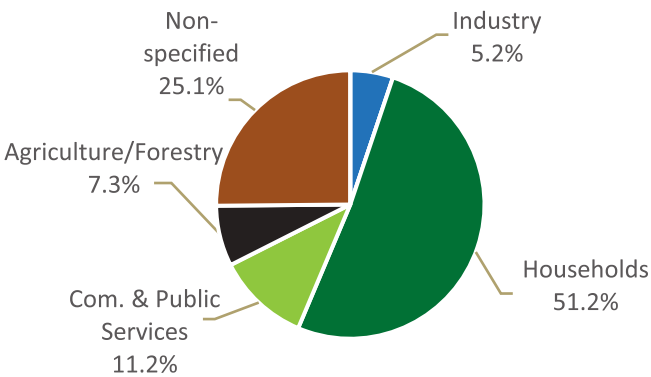
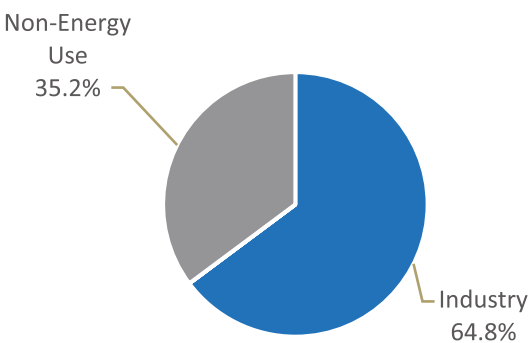


Figure 3.6. - Natural Gas Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Natural Gas	Solar	Electricity	Total of all energy sources
Production	47205,43	-	10619,09	0,89	-	57825,41
Imports (+)	-	6591,15	-	-	70,05	6661,20
Exports (-)	-41540,78	-3235,73	-3675,84	-	-	-48452,35
International Marine Bunkers (-)	-	-302,11	-	-	-	-302,11
International Aviation Bunkers (-)	-	-35,64	-	-	-	-35,64
Stock Changes (+ draw, - build)	404,13	200,19	-	-	-	604,32
TOTAL PRIMARY ENERGY SUPPLY	6068,78	3217,86	6943,25	0,89	70,05	16300,83
Transfers : Origin (-) and Destination (+)	-453,62	476,52	-	-	-	22,91
Statistical Difference	42,90	151,61	16,76	-	704,97	916,24
TRANSFORMATION Inputs (-) and Outputs (+)	-5572,26	3274,60	-5425,34	-0,89	3126,11	-4597,79
Electricity plants	-	-2320,87	-5425,34	-0,89	3126,11	-4621,00
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-5572,26	5595,47	-	-	-	23,21
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	144,66	407,37	-	78,98	631,01
Losses	-	-	496,5	-	557,20	1053,76
FINAL CONSUMPTION	-	6672,71	597,21	-	1855,02	9124,94
Industry	-	359,72	387,11	-	95,78	842,62
Transport	-	5894,11	-	-	-	5894,11
Households	-	392,49	-	-	949,58	1342,07
Commercial and public services	-	-	-	-	207,77	207,77
Agriculture, Forestry and Fishing	-	-	-	-	135,46	135,46
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	466,42	466,42
Non-Energy Use	-	26,39	210,10	-	-	236,49

INDICATORS AND ENERGY BALANCES



Madagascar Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

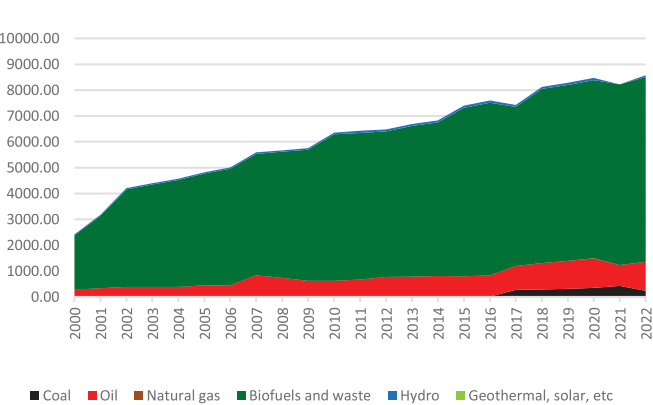


Figure 3.2. - Total Final Consumption (ktoe)

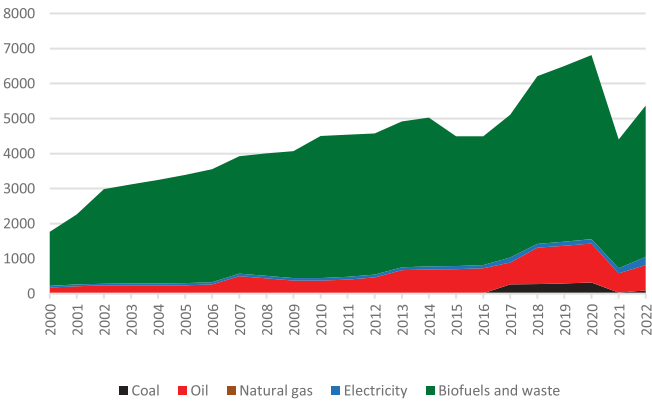


Figure 3.3. - Electricity Generation by Source (GWh)

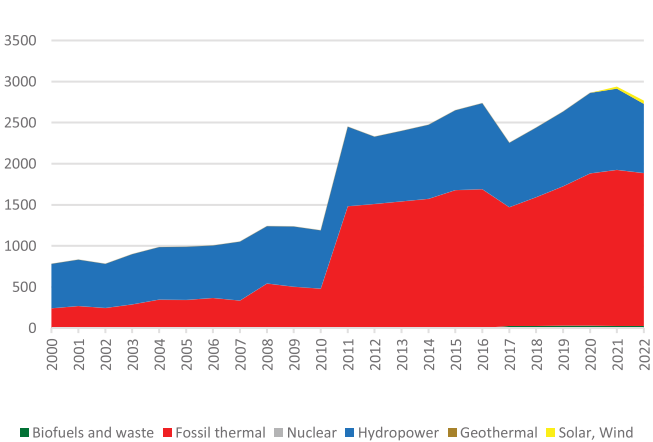


Figure 3.4. - Fuel Shares of Total Final Consumption

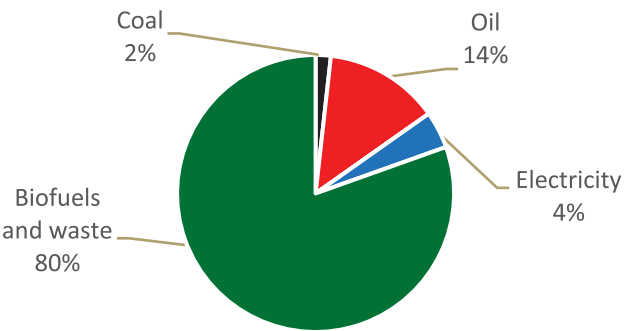


Figure 3.5. - Electricity Consumption by Sector

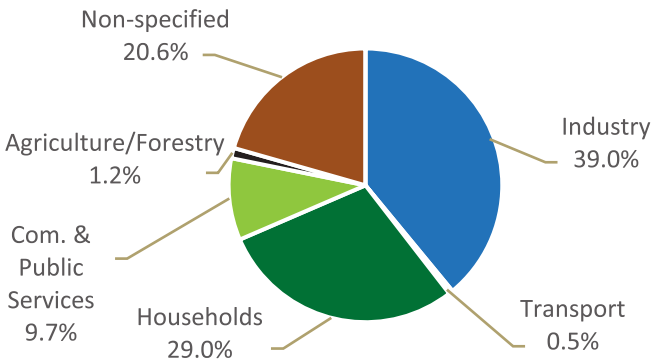
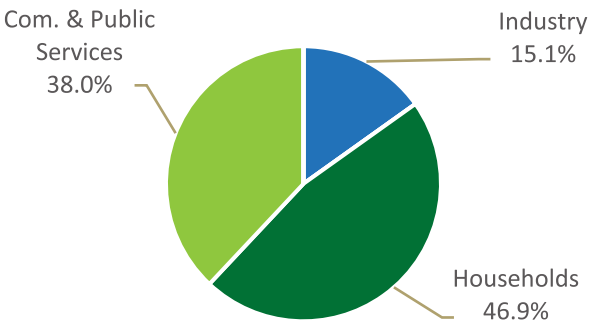


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	-	7138,80	72,55	3,40	-	7214,75
Imports (+)	240,77	1153,28	-	-	-	-	1394,05
Exports (-)	-	-	-	-	-	-	-
International Marine Bunkers (-)	-	-7,70	-	-	-	-	-7,70
International Aviation Bunkers (-)	-	-14,69	-	-	-	-	-14,69
Stock Changes (+ draw, - build)	-	-8,42	-	-	-	-	-8,42
TOTAL PRIMARY ENERGY SUPPLY	240,77	1122,48	7138,80	72,55	3,40	0.00	8577,99
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	-1,81	5,49	141,41	-	-	-7,66	137,43
TRANSFORMATION Inputs (-) and Outputs (+)	-147,42	-394,86	-2680,88	-72,55	-3,40	237,97	-3061,14
Electricity plants	-147,42	-394,86	-9,33	-72,55	-3,40	237,97	-389,59
CHP Plants	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-2671,55	-	-	-	-2671,55
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	1,13	1,13
Losses	-	-	-	-	-	12,58	12,58
FINAL CONSUMPTION	95,16	722,13	4316,50	-	-	231,92	5365,71
Industry	95,16	61,82	653,60	-	-	90,52	901,10
Transport	-	477,93	-	-	-	1,13	479,07
Households	-	51,17	2022,49	-	-	67,25	2140,91
Commercial and public services	-	-	1640,41	-	-	22,42	1662,82
Agriculture, Forestry and Fishing	-	-	-	-	-	2,84	2,84
Non-specified (HH, Com. & PS., Agri.)	-	105,83	-	-	-	47,76	153,59
Non-Energy Use	-	25,38	-	-	-	-	25,38

INDICATORS AND ENERGY BALANCES

Malawi
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

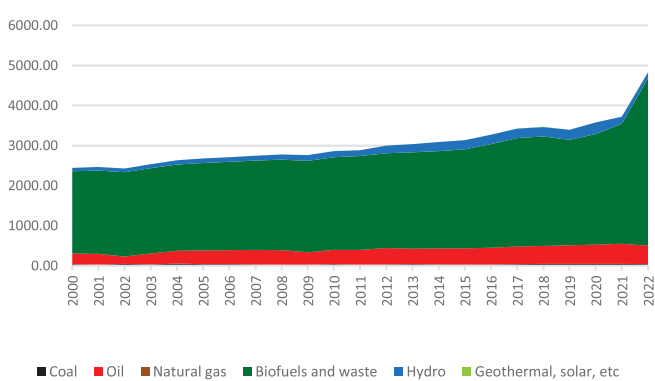


Figure 3.2. - Total Final Consumption (ktoe)

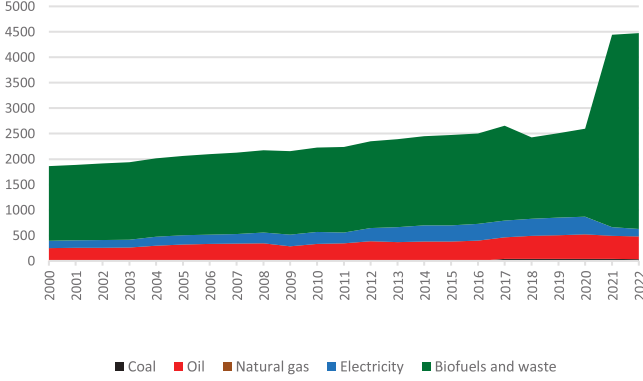


Figure 3.3. - Electricity Generation by Source (GWh)

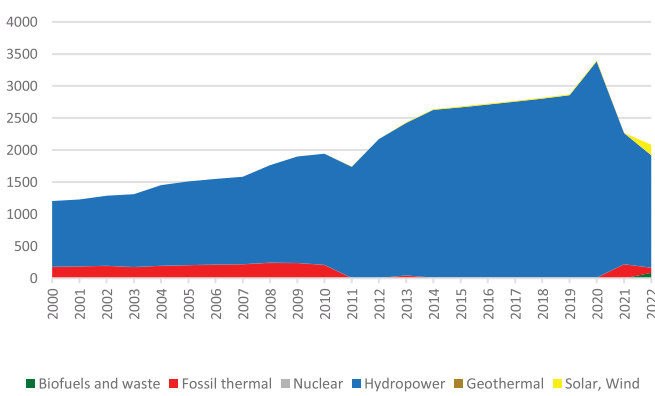


Figure 3.4. - Fuel Shares of Total Final Consumption

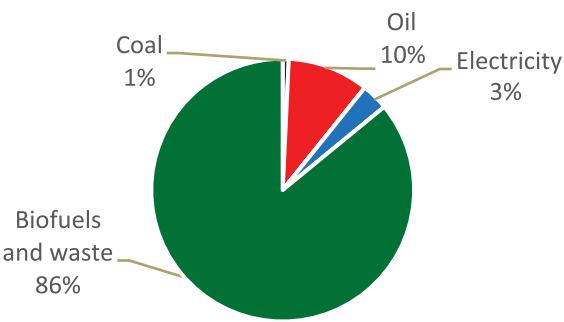


Figure 3.5. - Electricity Consumption by Sector

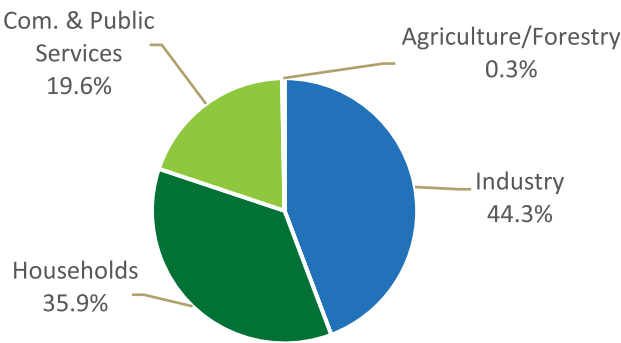
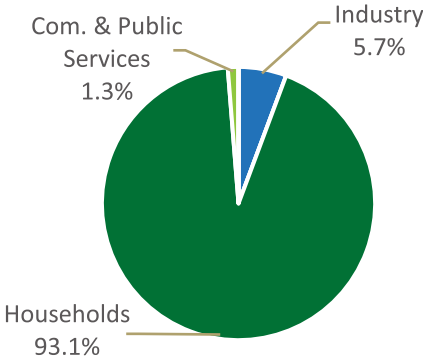


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	38,31	-	4173,37	150,90	14,23	-	4376,82
Imports (+)	1,17	470,10	-	-	-	1,65	472,91
Exports (-)	-	-	-	-	-	-1,26	-1,26
International Marine Bunkers (-)	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-5,70	-	-	-	-	-5,70
Stock Changes (+ draw, - build)	-	-	-	-	-	-	-
TOTAL PRIMARY ENERGY SUPPLY	39,48	464,39	4173,37	150,90	14,23	0,39	4842,77
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	-	0,41	-198,92	-	-	-15,00	-213,51
TRANSFORMATION Inputs (-) and Outputs (+)	-	-15,66	-527,25	-150,90	-14,23	179,40	-528,64
Electricity plants	-	-15,66	17,93	-150,90	-14,23	172,12	9,26
CHP Plants	-	-	-31,22	-	-	7,28	-23,94
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-513,96	-	-	-	-513,96
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	6,34	-	-	-	-	17,00	23,34
Losses	-	-	-	-	-	29,52	29,52
FINAL CONSUMPTION	33,14	448,32	3845,04	-	-	148,27	4474,78
Industry	33,14	37,26	218,24	-	-	65,64	354,28
Transport	-	382,63	-	-	-	-	382,63
Households	-	0,55	3578,19	-	-	53,18	3631,93
Commercial and public services	-	20,43	48,60	-	-	29,01	98,04
Agriculture, Forestry and Fishing	-	7,45	-	-	-	0,45	7,90
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	-
Non-Energy Use	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES

Mali
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

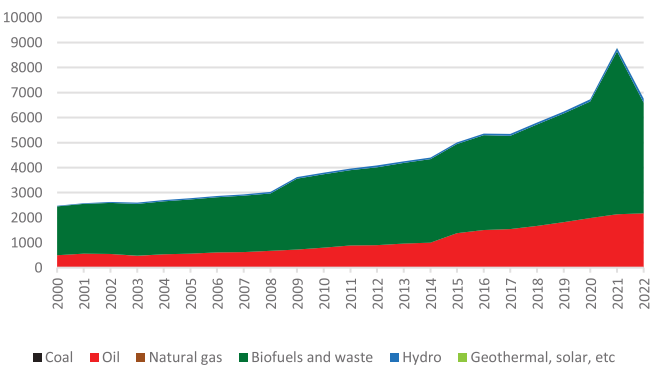


Figure 3.2. - Total Final Consumption (ktoe)

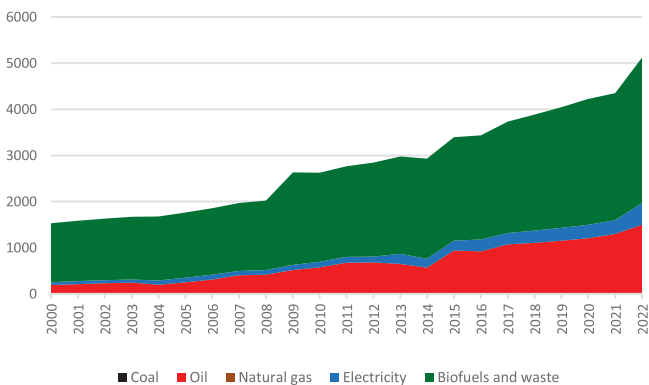


Figure 3.3. - Electricity Generation by Source (GWh)

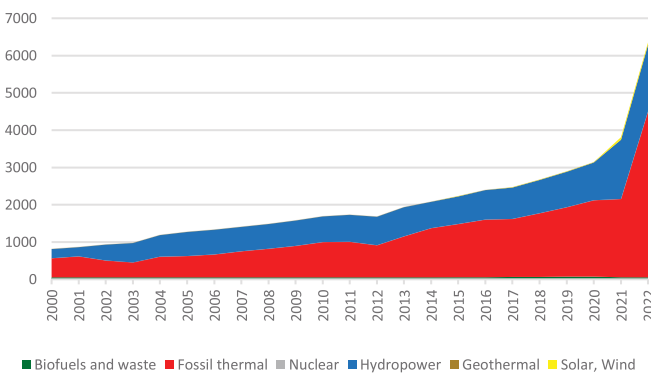


Figure 3.4. - Fuel Shares of Total Final Consumption

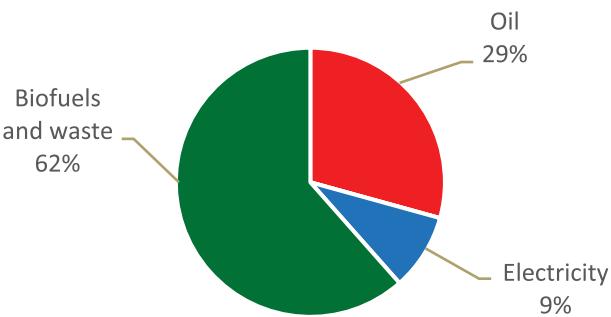


Figure 3.5. - Electricity Consumption by Sector

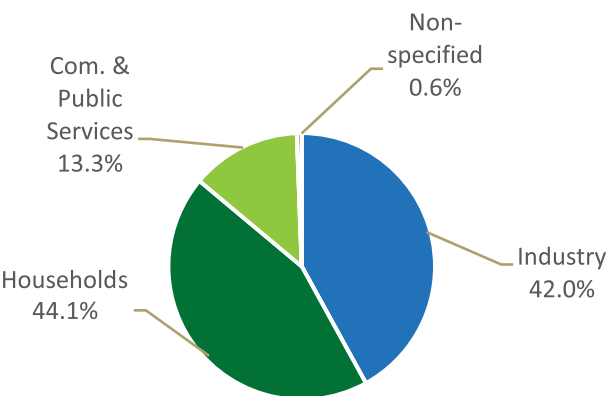
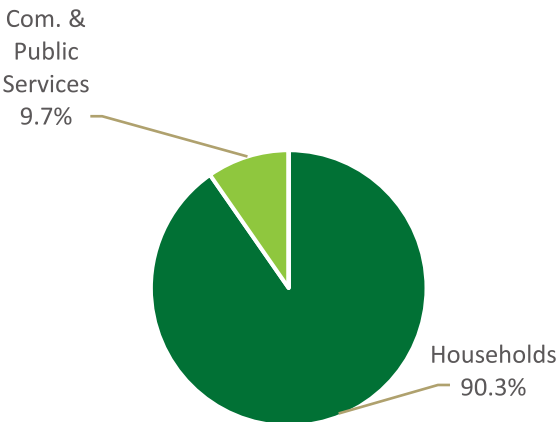


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	4423,05	153,68	5,38	-	4582,11
Imports (+)	2174,96	-	-	-	42,00	2216,97
Exports (-)	-	-	-	-	-77,32	-77,32
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-	-	-	-	-
Stock Changes (+ draw, - build)	-	-	-	-	-	-
TOTAL PRIMARY ENERGY SUPPLY	2174,96	4423,05	153,68	5,38	-35,32	6721,76
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	0,04	-	-	-	5,08	5,13
TRANSFORMATION Inputs (-) and Outputs (+)	-674,81	-1271,59	-153,68	-5,38	545,76	-1559,70
Electricity plants	-674,81	-21,39	-153,68	-5,38	545,76	-309,50
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-1250,20	-	-	-	-1250,20
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-
Losses	-	-	-	-	35,09	35,09
FINAL CONSUMPTION	1500,11	3151,47	-	-	470,27	5121,84
Industry	53,57	0,93	-	-	197,51	251,09
Transport	1354,74	-	-	-	-	1354,74
Households	13,51	2846,68	-	-	207,29	3067,49
Commercial and public services	3,38	304,79	-	-	62,73	370,90
Agriculture, Forestry and Fishing	73,87	0.00	-	-	-	73,87
Non-specified (HH, Com. & PS., Agri.)	0.00	0.00	-	-	2,73	2,73
Non-Energy Use	1,04	0.00	-	-	-	1,04

INDICATORS AND ENERGY BALANCES



Mauritania Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

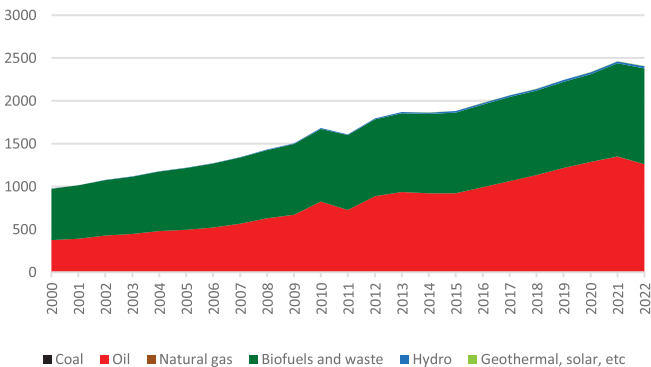


Figure 3.2. - Total Final Consumption (ktoe)

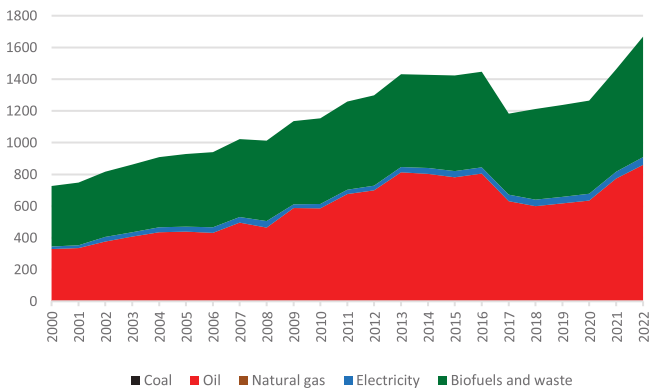


Figure 3.3. - Electricity Generation by Source (GWh)

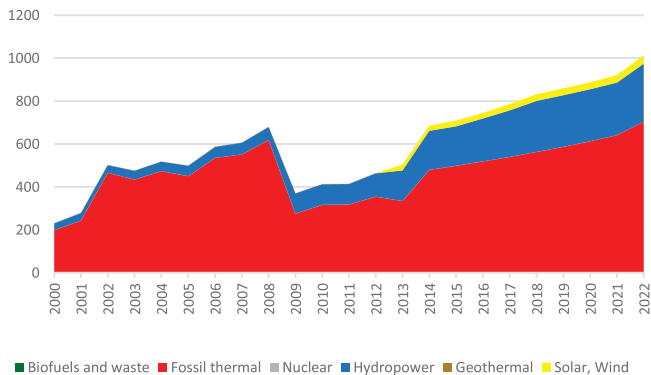


Figure 3.4. - Fuel Shares of Total Final Consumption

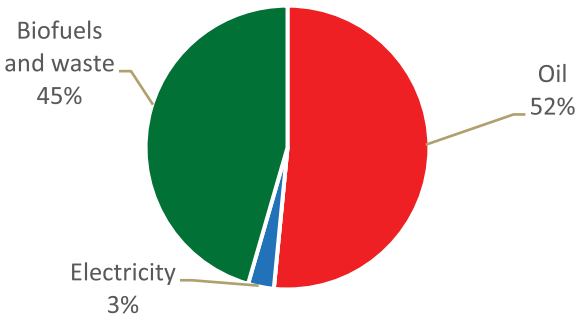


Figure 3.5. - Electricity Consumption by Sector

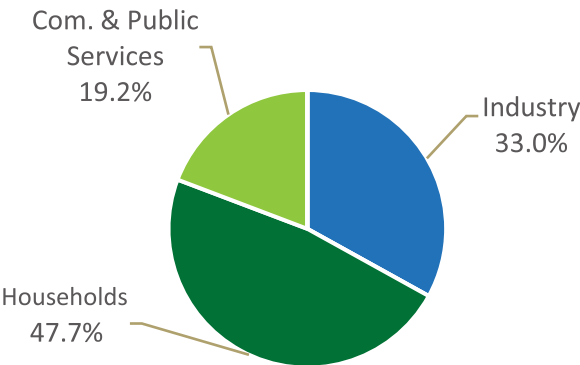
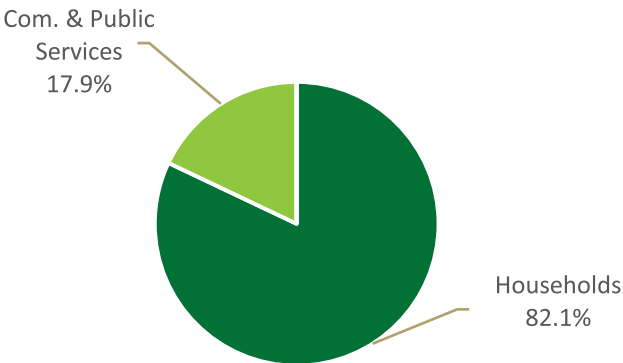


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Crude oil	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	362,56	-	1117,00	23,22	3,34	-	1506,11
Imports (+)	-	1311,43	-	-	-	43,66	1311,43
Exports (-)	-189,68	-	-	-	-	-0,06	-189,68
International Marine Bunkers (-)	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-98,38	-	-	-	-	-98,38
Stock Changes (+ draw, - build)	-171,43	48,08	-	-	-	-	-123,35
TOTAL PRIMARY ENERGY SUPPLY	1,45	1261,13	1117,00	23,22	3,34	43,60	2406,13
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	1,45	-3,65	-50,19	-	-	0,28	-52,12
TRANSFORMATION Inputs (-) and Outputs (+)	-	-404,97	-407,79	-23,22	-3,34	87,13	-752,18
Electricity plants	-	-404,97	-	-23,22	-3,34	87,13	-344,39
CHP Plants	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-407,79	-	-	-	-407,79
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	12,26	12,26
Losses	-	-	-	-	-	25,54	25,54
FINAL CONSUMPTION	-	859,82	759,40	-	-	49,06	1668,28
Industry	-	275,48	-	-	-	16,21	291,69
Transport	-	475,38	-	-	-	-	475,38
Households	-	32,95	623,10	-	-	23,41	679,47
Commercial and public services	-	17,80	136,30	-	-	9,44	163,54
Agriculture, Forestry and Fishing	-	0,00	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	58,21	-	-	-	-	58,21
Non-Energy Use	-	0,00	-	-	-	-	-

INDICATORS AND ENERGY BALANCES



Mauritius
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

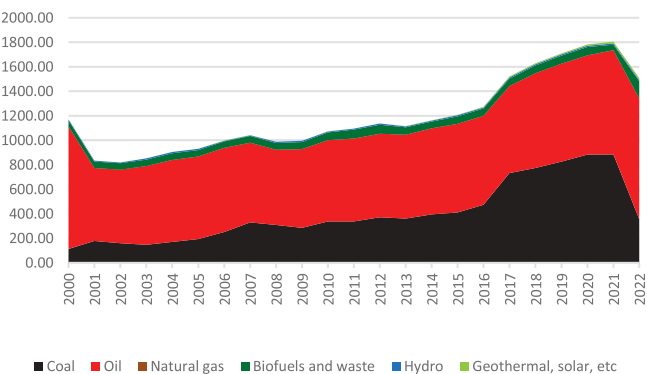


Figure 3.2. - Total Final Consumption (ktoe)

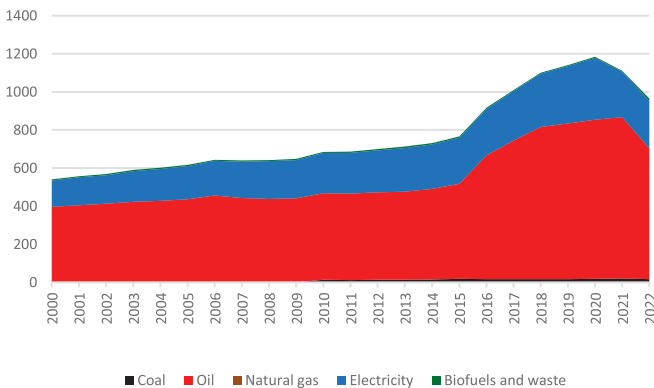


Figure 3.3. - Electricity Generation by Source (GWh)

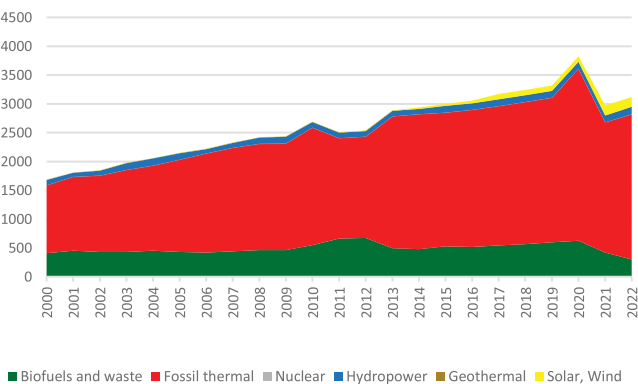


Figure 3.4. - Fuel Shares of Total Final Consumption

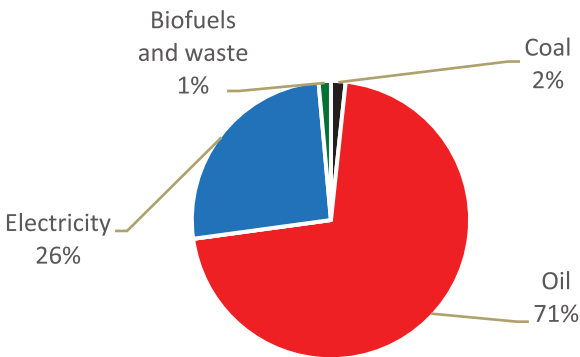


Figure 3.5. - Electricity Consumption by Sector

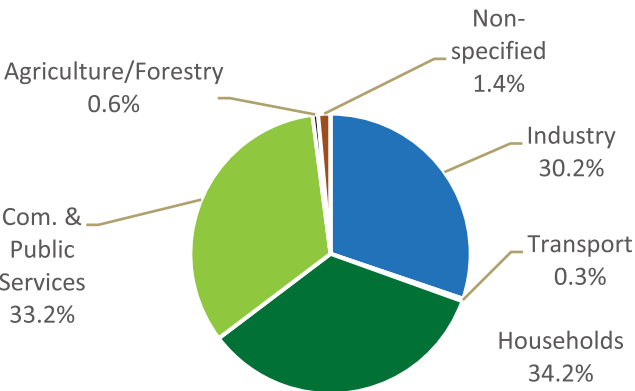
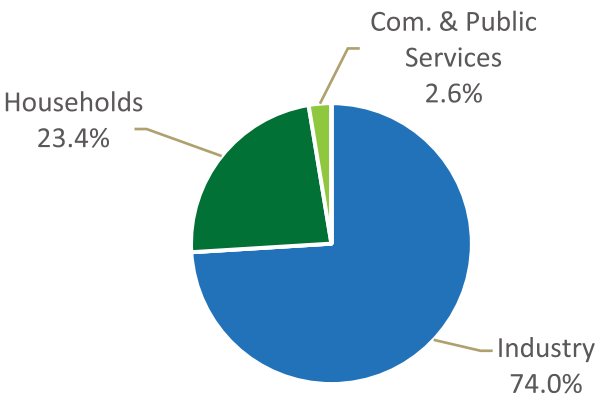


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Hydro	Solar	Wind	Electricity	Total of all energy sources
Production	-	-	140,00	11,03	13,28	1,33	-	165,64
Imports (+)	361,21	1571,39	0,24	-	-	-	-	1932,84
Exports (-)	-	-	-	-	-	-	-	-
International Marine Bunkers (-)	-	-481,81	-	-	-	-	-	-481,81
International Aviation Bunkers (-)	-	-107,88	-	-	-	-	-	-107,88
Stock Changes (+ draw, - build)	-4,09	1,68	-	-	-	-	-	-2,42
TOTAL PRIMARY ENERGY SUPPLY	357,12	983,37	140,23	11,03	13,28	1,33	0,00	1506,37
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-
Statistical Difference	-	-	-0,37	-	-	-	0,04	-0,33
TRANSFORMATION Inputs (-) and Outputs (+)	-340,74	-296,82	-126,80	-11,03	-13,28	-1,33	268,21	-521,79
Electricity plants	-340,74	-296,82	-126,22	-11,03	-13,28	-1,33	268,21	-521,21
CHP Plants	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-	-	-
Transformation not elsewhere specified	-	-	-0,58	-	-	-	-	-0,58
Energy Sector Own Use	-	-	-	-	-	-	5,11	5,11
Losses	-	-	-	-	-	-	14,81	14,81
FINAL CONSUMPTION	16,38	686,55	13,81	-	-	-	248,23	964,98
Industry	16,38	84,98	10,22	-	-	-	74,97	186,56
Transport	-	510,00	-	-	-	-	0,72	510,72
Households	-	66,39	3,23	-	-	-	84,91	154,53
Commercial and public services	-	22,67	0,36	-	-	-	82,51	105,53
Agriculture, Forestry and Fishing	-	1,66	-	-	-	-	1,61	3,26
Non-specified (HH, Com. & PS., Agri.)	-	0,86	-	-	-	-	3,52	4,38
Non-Energy Use	-	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES



Morocco Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

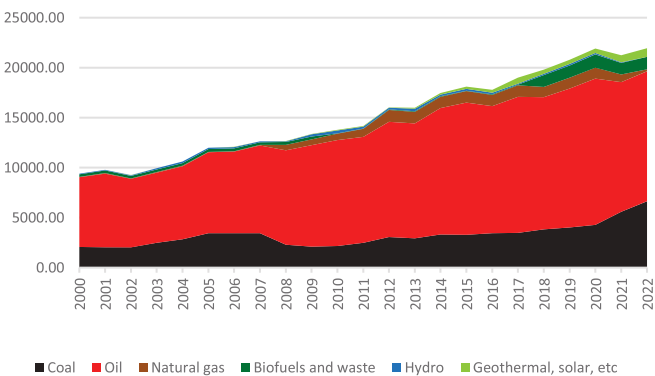


Figure 3.2. - Total Final Consumption (ktoe)

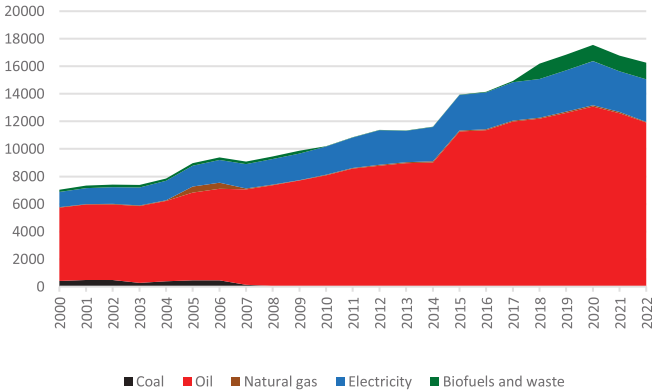


Figure 3.3. - Electricity Generation by Source (GWh)

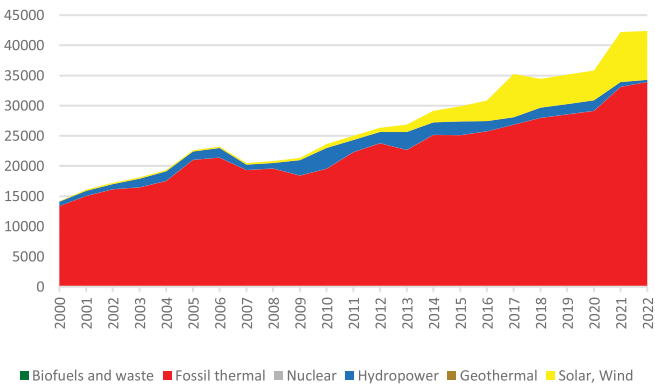


Figure 3.4. - Fuel Shares of Total Final Consumption

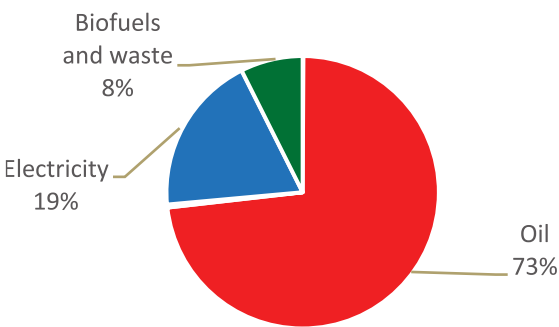


Figure 3.5. - Electricity Consumption by Sector

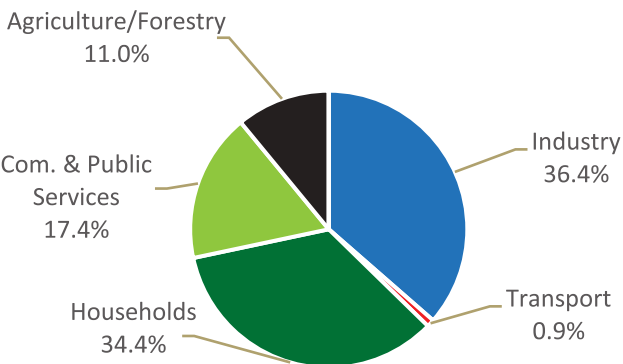
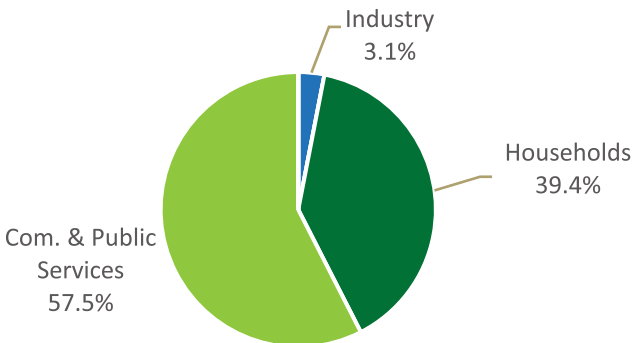


Figure 3.6. - Biofuels and Waste Consumption by Sector





Morocco
Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Coal / peat	Crude oil	Oil Products	Natural Gas	Biofuels & Waste	Hydro	Solar	Wind	Others Sources	Electricity	Total of all energy sources
Production	-	2,42	-	58,55	1242,58	30,11	275,23	460,52	111,96	-	2181,38
Imports (+)	6631,93	-	13813,82	132,93	-	-	-	-	-	160,58	20739,26
Exports (-)	-	-	-	-	-	-	-	-	-	-40,47	-40,47
Intl. Marine Bunkers (-)	-	-	-134,40	-	-	-	-	-	-	-	-134,40
Intl. Aviation Bunkers (-)	-	-	-663,33	-	-	-	-	-	-	-	-663,33
Stock Changes (+ draw, - build)	3,57	-	-21,10	-	-	-	-	-	-	-	-17,53
TOTAL PRIMARY ENERGY SUPPLY	6635,50	2,42	12995,01	191,48	1242,58	30,11	275,23	460,52	111,96	120,11	22064,93
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-	-	-	-
Statistical difference	-	-	-9,75	1,29	-	-	-	-	-	-	-8,46
TRANSFORMATION Inputs (-) and Outputs (+)	-6620,93	-	-1112,92	-132,93	-38,66	-30,11	-275,23	-460,52	-111,96	3645,17	-5138,09
Electricity plants	-6620,93	-	-1112,92	-132,93	-	-30,11	-275,23	-460,52	-111,96	3533,21	-5099,44
CHP Plants	-	-	-	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	0,39	-	-	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-38,66	-	-	-	-	-	-38,66
Transformation not elsewhere specified	-	-	-	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	2,42	-	-	-	-	-	-	-	14,68	17,10
Losses	-	-	-	-	-	-	-	-	-	653,58	653,58
FINAL CONSUMPTION	14,57	-	11891,83	57,26	1203,93	-	-	-	-	3097,03	16264,62
Industry	14,57	-	1781,18	57,26	36,81	-	-	-	-	1127,96	3017,79
Transport	-	-	5662,37	-	-	-	-	-	-	27,43	5689,80
Households	-	-	2914,68	-	474,67	-	-	-	-	1064,41	4453,75
Com. & Public Service	-	-	178,38	-	692,45	-	-	-	-	537,75	1408,58
Agriculture/Forestry	-	-	916,22	-	-	-	-	-	-	339,48	1255,70
Others (Non Specified)	-	-	0.00	-	-	-	-	-	-	-	-
Non-Energy Use	-	-	439,00	-	-	-	-	-	-	-	439,00

INDICATORS AND ENERGY BALANCES



Mozambique Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

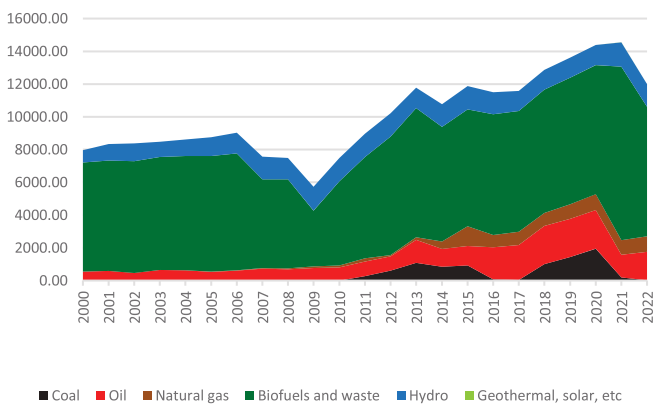


Figure 3.2. - Total Final Consumption (ktoe)

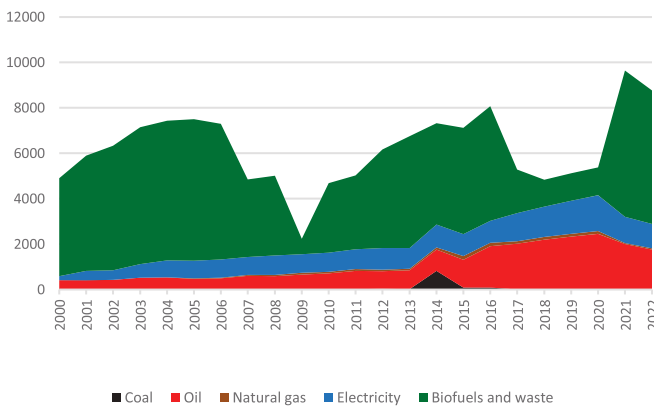


Figure 3.3. - Electricity Generation by Source (GWh)

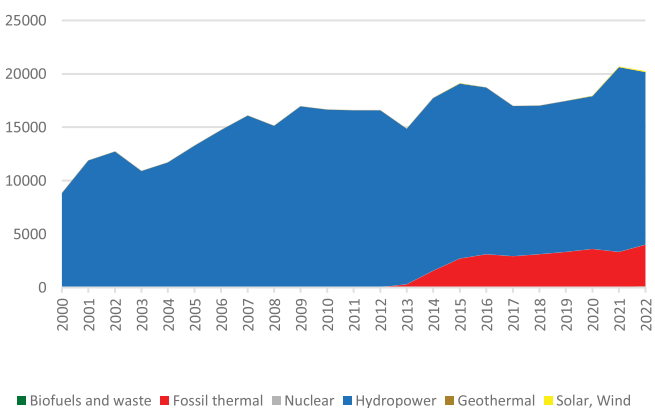


Figure 3.4. - Fuel Shares of Total Final Consumption

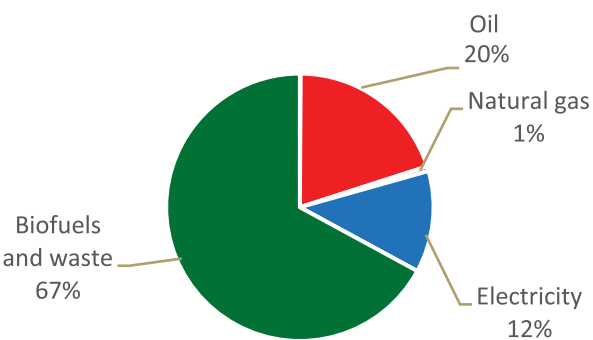


Figure 3.5. - Electricity Consumption by Sector

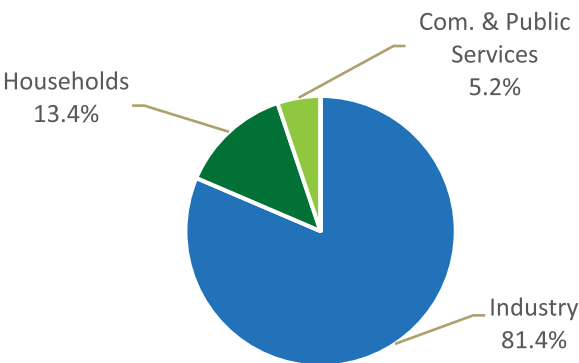
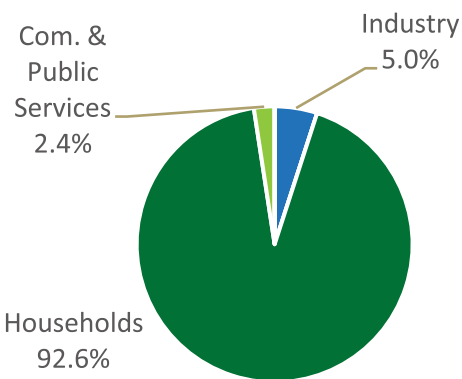


Figure 3.6. - Biofuels and Waste Consumption by Sector



Mozambique

Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Crude oil	Oil products	Natural Gas	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	9056,67	448,26	-	5789,40	7909,83	1390,66	5,87	-	24600,69
Imports (+)	-	-	1922,13	-	-	-	22,93	710,15	2632,28
Exports (-)	-9048,20	-428,28	-157,48	-4851,92	-	-	-53,63	-984,54	-15470,42
International Marine Bunkers (-)	-	-	-7,23	-	-	-	-	-	-7,23
International Aviation Bunkers (-)	-	-	-16,32	-	-	-	-	-	-16,32
Stock Changes (+ draw, - build)	-	-12,10	-	-	-	-	-	-	-12,10
TOTAL PRIMARY ENERGY SUPPLY	8,47	7,88	1741,10	937,48	7909,83	1390,66	5,87	-274,39	11726,89
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-	-
Statistical Difference	0,26	7,88	-43,45	58,95	-	-	-	-26,99	-3,36
TRANSFORMATION Inputs (-) and Outputs (+)	-	-	-34,09	-828,71	-2027,86	-1390,66	-5,87	1741,3	-2545,81
Electricity plants	-	-	-34,09	-828,71	-71,65	-1390,66	-5,87	1741,38	-589,59
CHP Plants	-	-	-	-	-111,02	-	14,35	-	-96,67
Heat Plants	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-1956,21	-	-	-	-1956,21
Transformation not elsewhere specified	-	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-	-	125,29	125,29
Losses	-	-	-	-	-	-	-	290,60	290,60
FINAL CONSUMPTION	-	-	1750,46	49,82	5881,97	-	-	1078,09	8768,56
Industry	-	-	267,24	42,21	293,52	-	-	877,93	1489,11
Transport	-	-	1409,74	3,64	-	-	-	-	1413,38
Households	-	-	57,42	1,01	5446,27	-	-	144,51	5649,22
Commercial and public services	-	-	-	2,96	142,19	-	-	55,65	200,79
Agriculture, Forestry and Fishing	-	-	16,06	-	-	-	-	-	16,06
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	-	-	-
Non-Energy Use	-	-	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES



Figure 3.1. - Total Primary Energy Supply (ktoe)

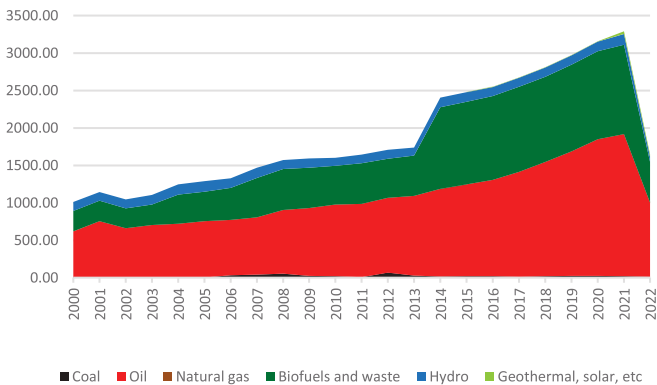


Figure 3.2. - Total Final Consumption (ktoe)

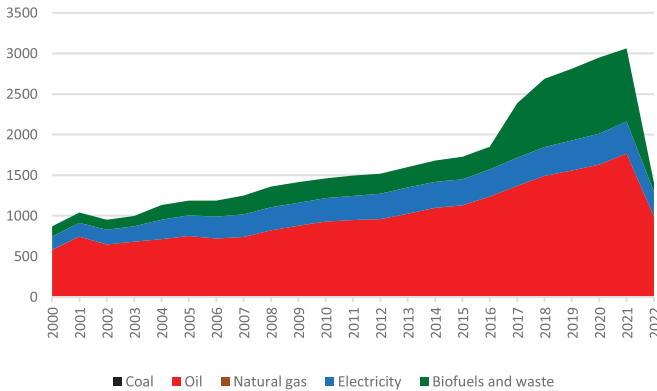


Figure 3.3. - Electricity Generation by Source (GWh)

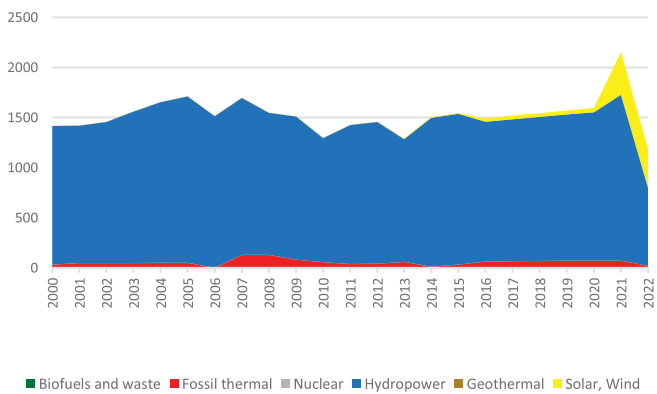


Figure 3.4. - Fuel Shares of Total Final Consumption

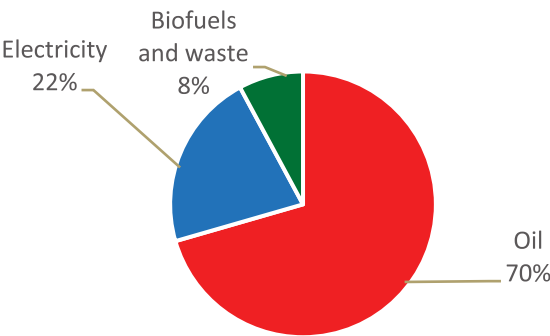


Figure 3.5. - Electricity Consumption by Sector

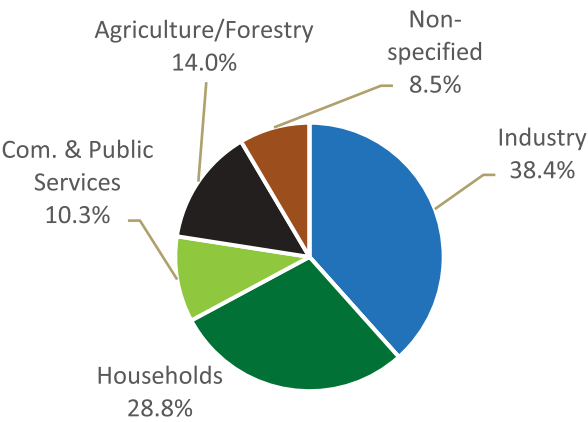
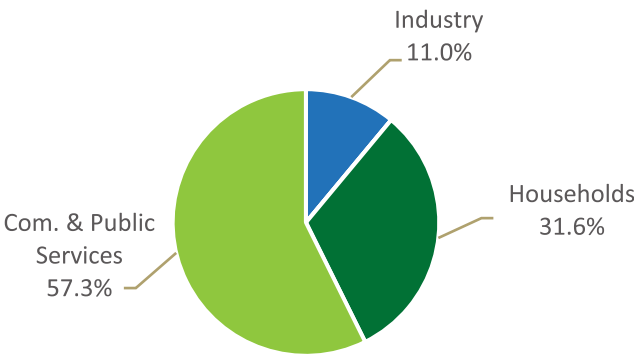


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Biofuels and waste	Hydro	Solar	Wind	Electricity	Total of all energy sources
Production	-	-	730,64	67,15	31,30	1,29	-	830,38
Imports (+)	8,82	1140,37	-	-	-	-	250,82	1400,01
Exports (-)	-	-50,97	-184,79	-	-	-	-14,53	-250,29
International Marine Bunkers (-)	-	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-97,21	-	-	-	-	-	-97,21
Stock Changes (+ draw, - build)	-	-	-	-	-	-	-	-
TOTAL PRIMARY ENERGY SUPPLY	8,82	992,18	545,85	67,15	31,30	1,29	236,29	1882,88
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-
Statistical Difference	-	-	0,01	-	-	-	-	0,01
TRANSFORMATION Inputs (-) and Outputs (+)	-8,82	-0,65	-435,29	-67,15	-31,30	-1,29	101,46	-443,04
Electricity plants	-8,82	-0,65	-9,33	-67,15	-31,30	-1,29	101,46	-7,76
CHP Plants	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-435,29	-	-	-	-	-435,29
Transformation not elsewhere specified	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-	-	-
Losses	-	-	-	-	-	-	34,05	34,05
FINAL CONSUMPTION	-	991,53	110,55	-	-	-	303,70	1405,78
Industry	-	61,12	12,20	-	-	-	116,60	189,93
Transport	-	445,33	-	-	-	-	-	445,33
Households	-	-	34,97	-	-	-	87,34	122,31
Commercial and public services	-	392,19	63,38	-	-	-	31,30	486,87
Agriculture, Forestry and Fishing	-	63,37	-	-	-	-	42,60	105,98
Non-specified (HH, Com. & PS., Agri.)	-	17,47	-	-	-	-	25,85	43,32
Non-Energy Use	-	12,05	-	-	-	-	-	12,05

INDICATORS AND ENERGY BALANCES

Niger
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

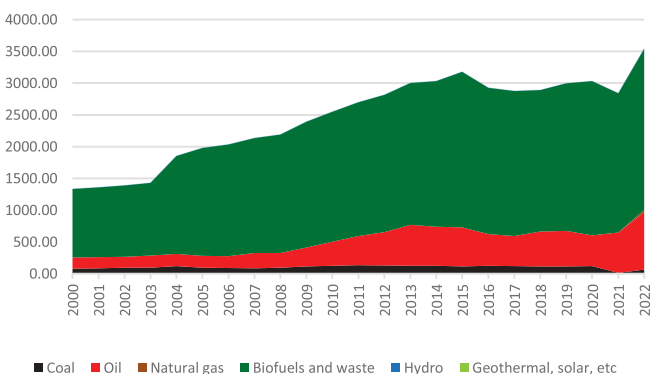


Figure 3.2. - Total Final Consumption (ktoe)

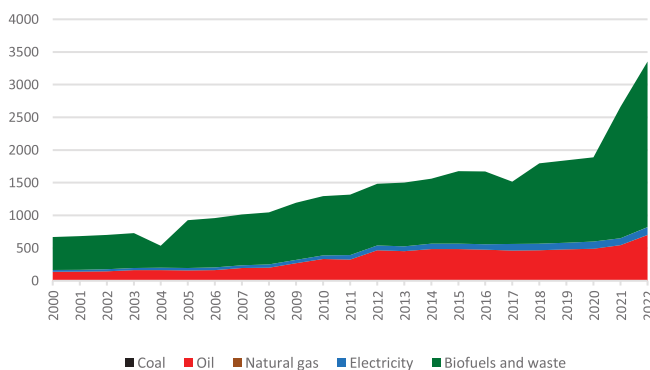


Figure 3.3. - Electricity Generation by Source (GWh)

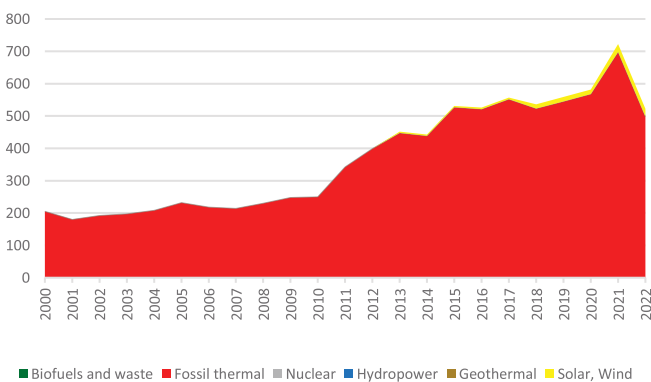


Figure 3.4. - Fuel Shares of Total Final Consumption

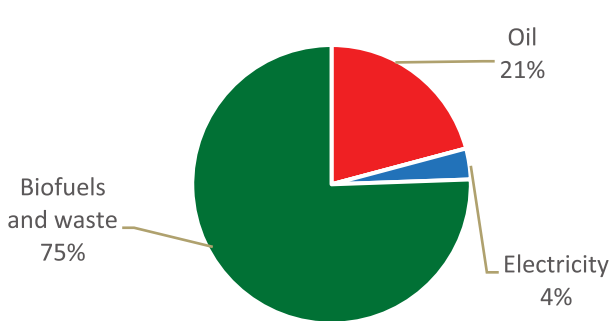


Figure 3.5. - Electricity Consumption by Sector

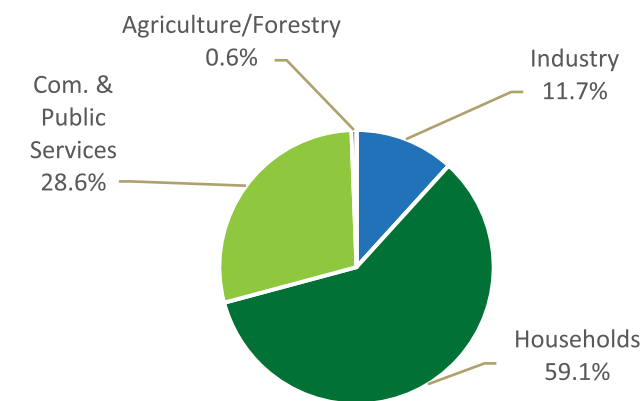
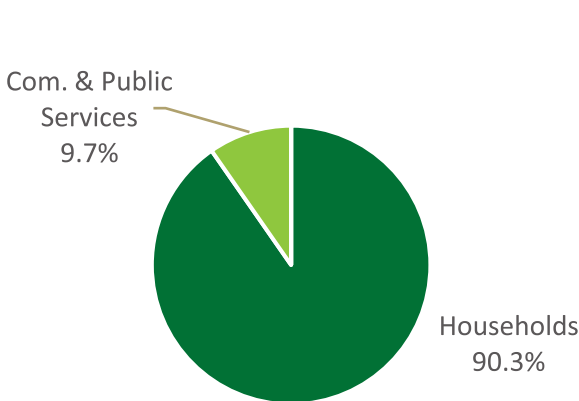


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Crude Oil	Oil products	Natural Gas	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	66,89	874,91	-	40,63	2487,84	2,04	-	3472,31
Imports (+)	8,82	-	280,45	-	46,28	-	100,05	426,79
Exports (-)	-	-	-159,71	-	-	-	-	-159,71
International Marine Bunkers (-)	-	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-	-67,72	-	-	-	-	-67,72
Stock Changes (+ draw, - build)	-0,30	-20,01	-7,92	-	-	-	-	-28,23
TOTAL PRIMARY ENERGY SUPPLY	66,59	854,90	45,10	40,63	2534,12	2,04	100,05	3643,44
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-
Statistical Difference	3,13	-	-2,60	19,46	-	-	-15,46	4,53
TRANSFORMATION Inputs (-) and Outputs (+)	-61,73	-854,90	703,67	-21,17	0,00	-2,04	44,85	-191,32
Electricity plants	-60,08	-0,65	-94,36	-21,17	-31,30	-2,04	44,85	-132,81
CHP Plants	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-
Oil Refineries	-	-854,90	798,03	-	-	-	-	-56,87
Coal-to-liquids plants	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-435,29	-	-	-	-	-
Transformation not elsewhere specified	-1,65	-	-	-	-	-	-	-1,65
Energy Sector Own Use	-	-	-0,01	-	-	-	9,24	9,23
Losses	1,73	-	51,99	-	-	-	30,82	84,55
FINAL CONSUMPTION	-	0,00	699,38	0,00	2534,12	-	120,31	3353,81
Industry	-	-	107,71	-	-	-	14,13	121,83
Transport	-	-	506,60	-	-	-	-	506,60
Households	-	-	52,03	-	2288,91	-	71,08	2412,02
Commercial and public services	-	-	31,39	-	245,21	-	34,39	311,00
Agriculture, Forestry and Fishing	-	-	1,65	-	-	-	0,72	2,37
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	-	-
Non-Energy Use	-	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES

Nigeria
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

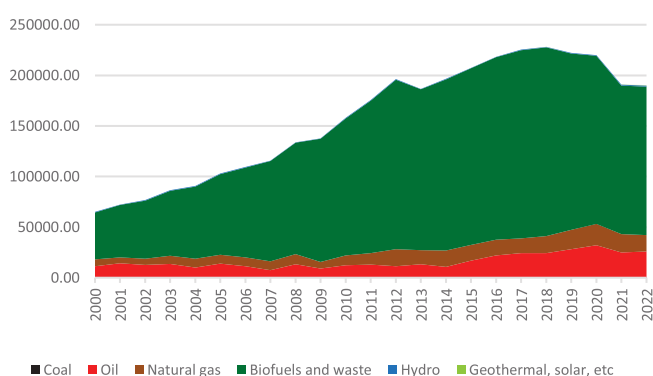


Figure 3.2. - Total Final Consumption (ktoe)

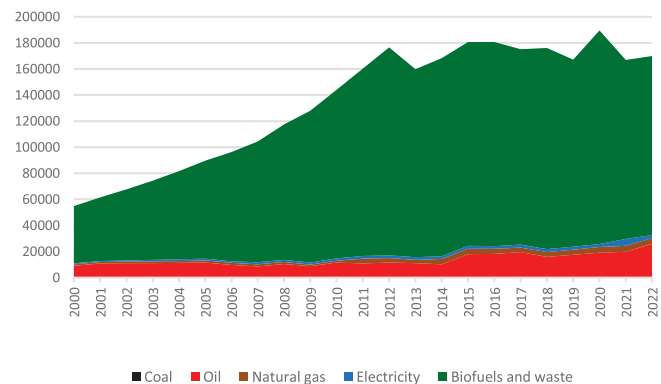


Figure 3.3. - Electricity Generation by Source (GWh)

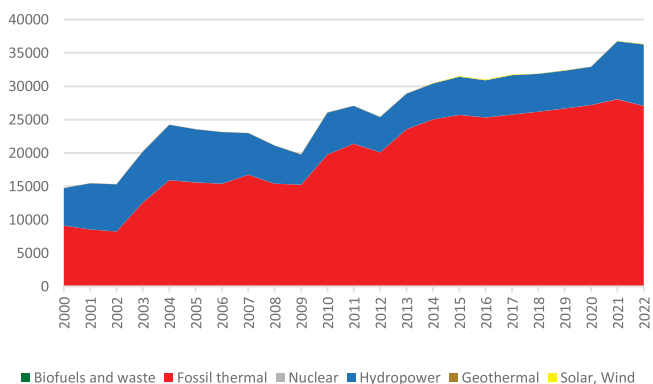


Figure 3.4. - Fuel Shares of Total Final Consumption

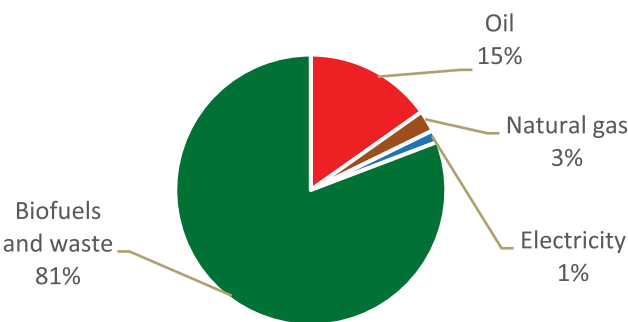


Figure 3.5. - Electricity Consumption by Sector

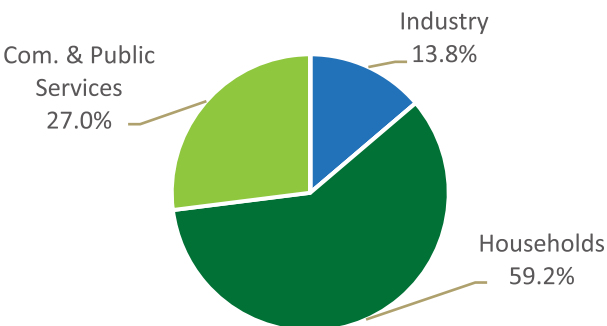
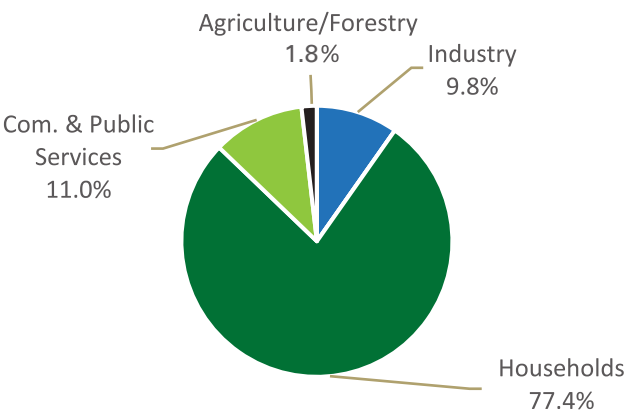


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Crude Oil	Oil products	Natural Gas	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	77966,93	-	37335,26	33878,46	791,42	4,21	-	149976,28
Imports (+)	-	25035,20	-	46,28	-	-	-	25035,20
Exports (-)	-78897,55	-	-27128,28	-	-	-	-199,22	-106225,05
International Marine Bunkers (-)	-	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-486,14	-	-	-	-	-	-486,14
Stock Changes (+ draw, - build)	3200,43	-1030,81	6250,99	-	-	-	-	8420,61
TOTAL PRIMARY ENERGY SUPPLY	2269,81	23518,25	16457,97	33878,46	791,42	4,21	-199,22	76720,90
Transfers : Origin (-) and Destination (+)	-1879,41	2014,33	-	-	-	-	-	134,91
Statistical Difference	0,72	5,76	-174,10	-128,97	-	-	-101,54	-398,13
TRANSFORMATION Inputs (-) and Outputs (+)	-389,68	323,40	-7857,34	-9346,02	-791,42	-4,21	3121,15	-14944,11
Electricity plants	-	-	-7857,34	-31,30	-791,42	-4,21	3121,15	-5531,82
CHP Plants	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-
Oil Refineries	-389,68	323,40	-	-	-	-	-	-66,28
Coal-to-liquids plants	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-9346,02	-	-	-	-9346,02
Transformation not elsewhere specified	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	4434,65	-	-	-	105,33	4539,98
Losses	-	-	-	-	-	-	456,23	456,23
FINAL CONSUMPTION	-	25850,22	4340,07	24661,41	-	-	2461,91	57313,61
Industry	-	1356,18	2942,82	2406,15	-	-	339,29	7044,44
Transport	-	22427,37	-	-	-	-	-	22427,37
Households	-	1597,29	-	19090,52	-	-	1458,13	22145,94
Commercial and public services	-	168,85	-	2713,71	-	-	664,49	3547,05
Agriculture, Forestry and Fishing	-	-	-	451,03	-	-	-	451,03
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	-	-
Non-Energy Use	-	300,53	1397,25	-	-	-	-	1697,78

INDICATORS AND ENERGY BALANCES



Rwanda
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

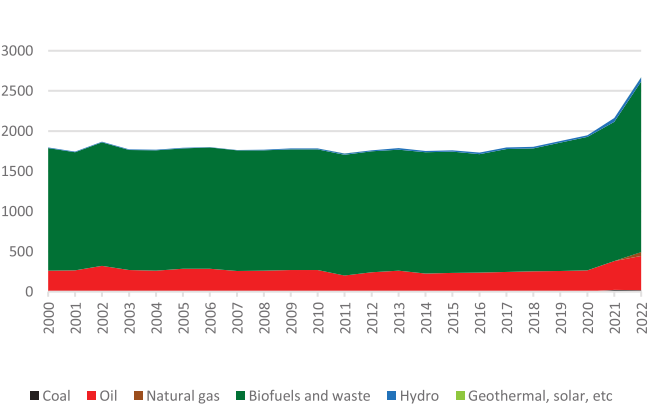


Figure 3.2. - Total Final Consumption (ktoe)

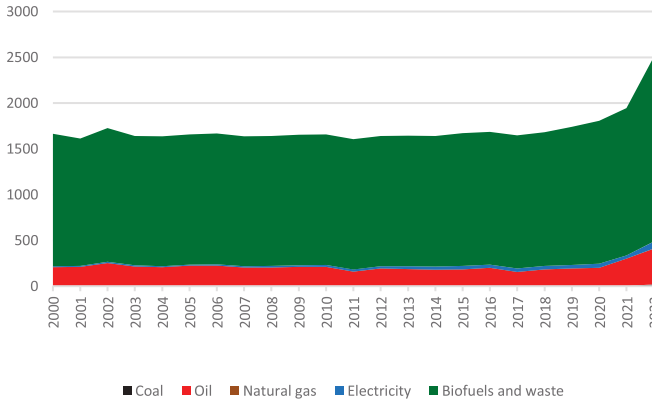


Figure 3.3. - Electricity Generation by Source (GWh)

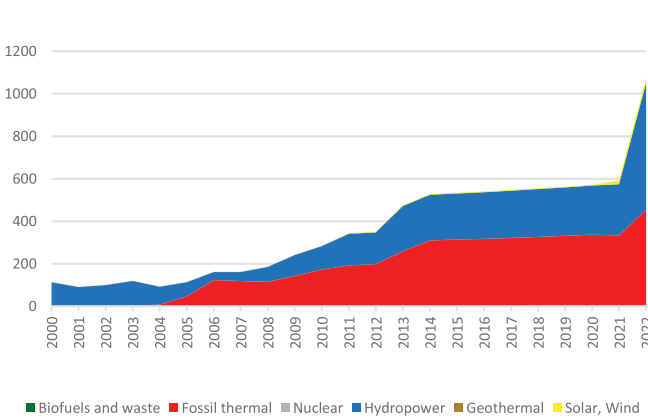


Figure 3.4. - Fuel Shares of Total Final Consumption

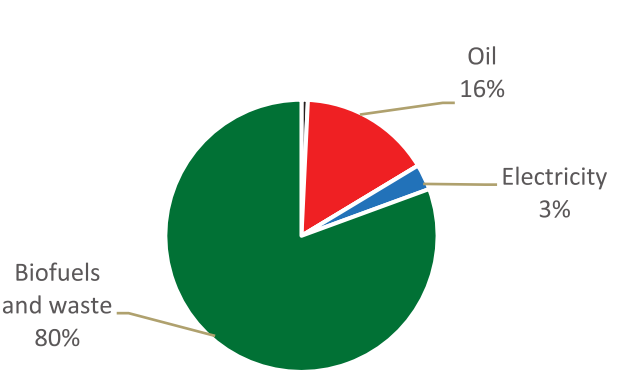


Figure 3.5. - Electricity Consumption by Sector

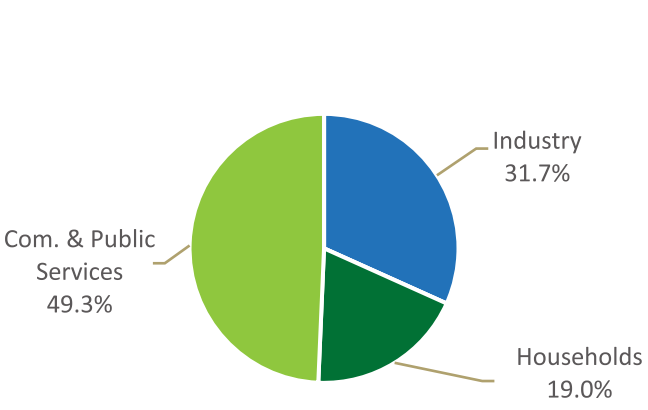
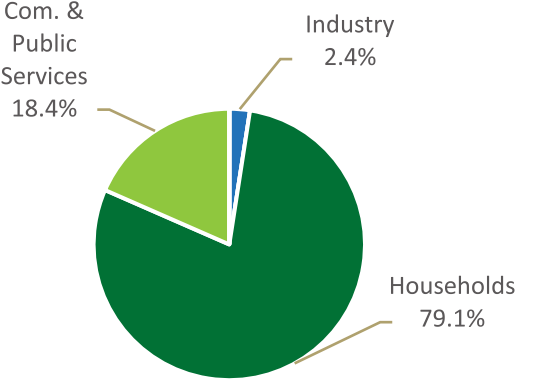


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil products	Natural Gas	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	-	49,36	2080,94	51,45	1,61	-	2183,36
Imports (+)	19,97	591,75	-	42,98	-	-	2,84	657,53
Exports (-)	-	-131,58	-	-	-	-	-0,76	-132,33
International Marine Bunkers (-)	-	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-38,67	-	-	-	-	-	-38,67
Stock Changes (+ draw, - build)	-	3,39	-0	-	-	-	-	3,39
TOTAL PRIMARY ENERGY SUPPLY	19,97	424,89	49,36	2123,92	51,45	1,61	2,08	2673,27
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-
Statistical Difference	1,00	-5,86	0.00	23,31	-	-	0,89	19,33
TRANSFORMATION Inputs (-) and Outputs (+)	-	-39,65	-49,36	-81,29	-51,45	-1,61	92,09	-131,26
Electricity plants	-	-39,65	-49,36	-0,41	-51,45	-1,61	92,09	-50,39
CHP Plants	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-80,87	-	-	-	-80,87
Transformation not elsewhere specified	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-	0,79	0,79
Losses	-	-	-	-	-	-	16,17	16,17
FINAL CONSUMPTION	-	391,10	-	2019,33	-	-	76,33	2505,72
Industry	-	71,94	-	49,45	-	-	24,21	164,57
Transport	-	233,41	-	-	-	-	-	233,41
Households	-	25,00	-	1597,62	-	-	14,47	1637,09
Commercial and public services	-	30,96	-	372,26	-	-	37,64	440,87
Agriculture, Forestry and Fishing	-	-	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	3,44	-	-	-	-	-	3,44
Non-Energy Use	-	26,35	-	-	-	-	-	26,35

INDICATORS AND ENERGY BALANCES



Sao Tome and Principe Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

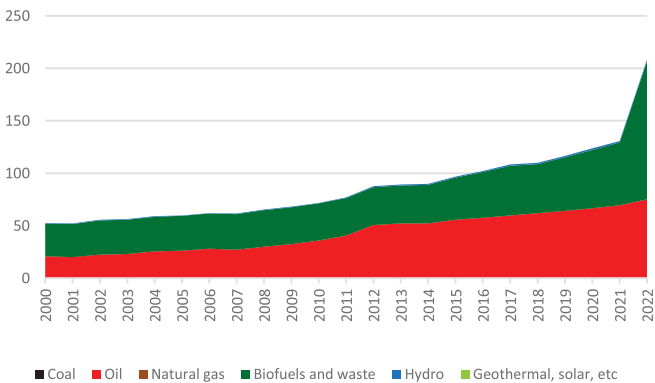


Figure 3.2. - Total Final Consumption (ktoe)

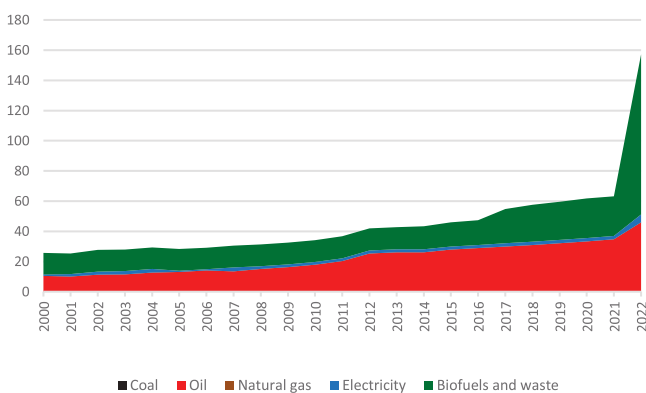


Figure 3.3. - Electricity Generation by Source (GWh)

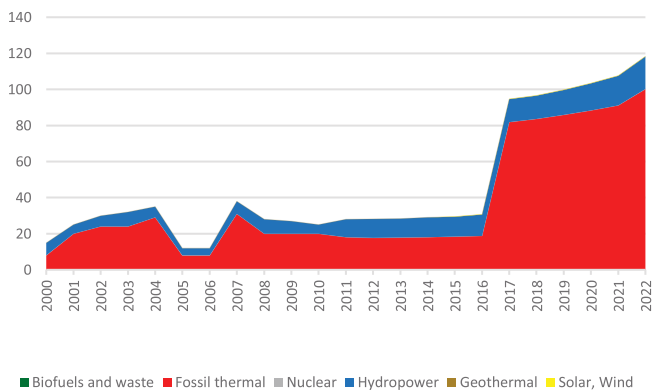


Figure 3.4. - Fuel Shares of Total Final Consumption

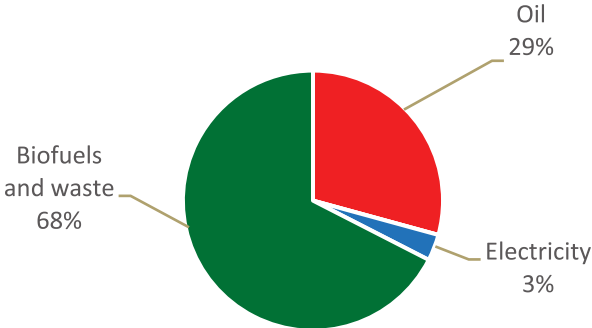


Figure 3.5. - Electricity Consumption by Sector

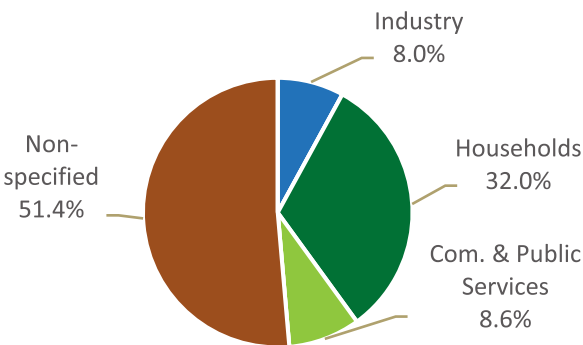
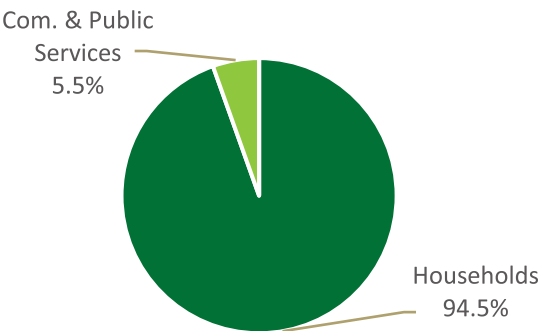


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	131,64	1,56	0,01	-	133,21
Imports (+)	80,98	-	-	-	-	80,98
Exports (-)	-	-	-	-	-	-
International Marine Bunkers (-)	-2,05	-	-	-	-	-2,05
International Aviation Bunkers (-)	-5,24	-	-	-	-	-5,24
Stock Changes (+ draw, - build)	1,37	-	-	-	-	1,37
TOTAL PRIMARY ENERGY SUPPLY	75,0	131,64	1,56	0,01	0.00	208,27
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	1,29	0,48	-	-	0,30	2,07
TRANSFORMATION Inputs (-) and Outputs (+)	-27,78	-25,05	-1,56	-0,01	10,18	-44,22
Electricity plants	-27,78	-81,81	-1,56	-0,01	10,18	-19,17
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-25,05	-	-	-	-25,05
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	0,90	0,90
Losses	-	-	-	-	3,83	3,83
FINAL CONSUMPTION	46,00	106,10	-	-	5,15	157,25
Industry	9,69	-	-	-	0,41	10,10
Transport	22,14	-	-	-	-	22,14
Households	9,98	100,32	-	-	1,65	111,94
Commercial and public services	0,28	5,78	-	-	0,44	6,50
Agriculture, Forestry and Fishing	0,04	-	-	-	-	0,04
Non-specified (HH, Com. & PS., Agri.)	3,88	-	-	-	2,65	6,52
Non-Energy Use	-	-	-	-	0.00	0.00

INDICATORS AND ENERGY BALANCES

Senegal
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

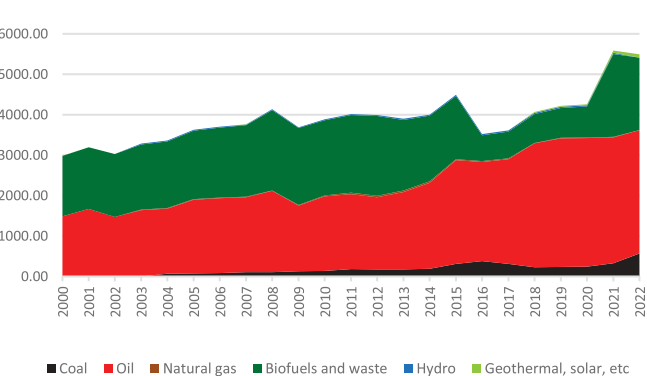


Figure 3.2. - Total Final Consumption (ktoe)

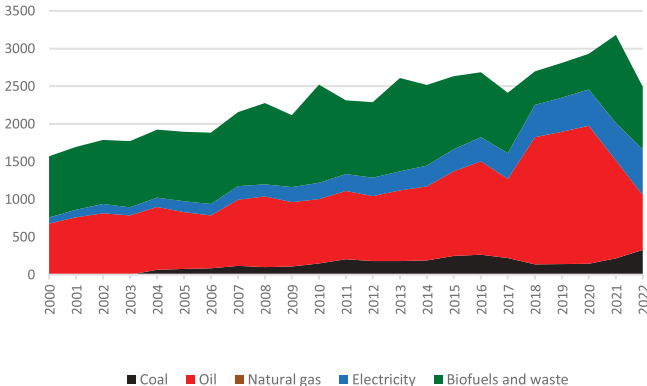


Figure 3.3. - Electricity Generation by Source (GWh)

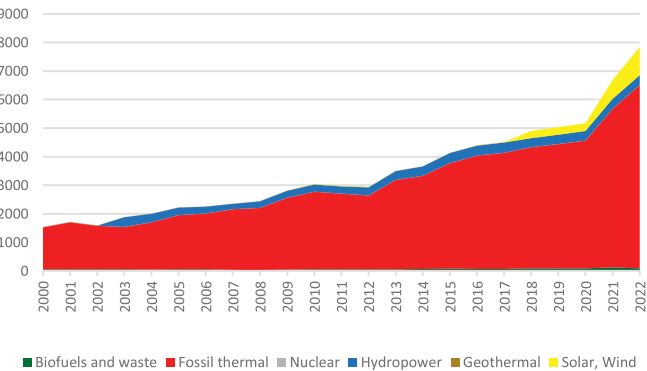


Figure 3.4. - Fuel Shares of Total Final Consumption

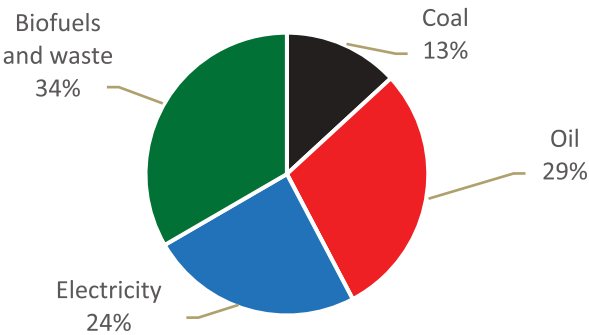


Figure 3.5. - Electricity Consumption by Sector

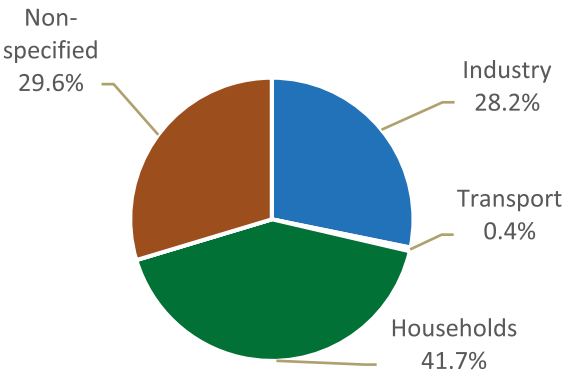
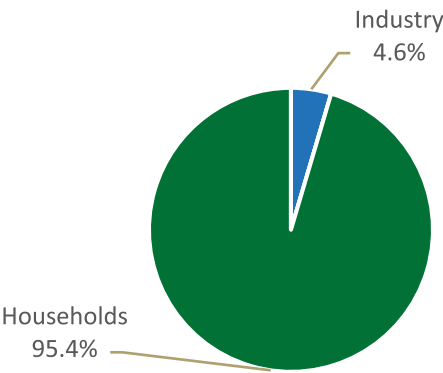


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Crude oil	Oil products	Natural Gas	Biofuels and waste	Solar	Wind	Electricity	Total of all energy sources
Production	-	644,01	-	-	1793,06	51,08	34,01	-	1878,15
Imports (+)	567,8	-	2726,37	-	-	-	22,93	-	3938,21
Exports (-)	-	-	-13,21	-	-	-	-53,63	-	-13,21
International Marine Bunkers (-)	-	-	-160,36	-	-	-	-	-	-160,36
International Aviation Bunkers (-)	-	-	-159,84	-	-	-	-	-	-159,84
Stock Changes (+ draw, - build)	-	-3,93	17,50	-	-	-	-	-	13,57
TOTAL PRIMARY ENERGY SUPPLY	567,82	640,09	2410,46	-	1793,06	51,08	34,01	-	5496,52
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-	-
Statistical Difference	-0,01	7,88	1191,36	-	335,52	-	-	0,04	1526,91
TRANSFORMATION Inputs (-) and Outputs (+)	-239,86	-640,09	-492,46	-	-625,40	-51,08	-34,01	645,21	-1437,69
Electricity plants	-108,55	-	-792,45	-	-73,78	-51,08	-34,01	645,21	-414,66
CHP Plants	-131,31	-	-119,65	-	-	-	-	-	-250,96
Heat Plants	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-
Oil Refineries	-	-640,09	419,63	-	-	-	-	-	-220,45
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-551,62	-	-	-	-551,62
Transformation not elsewhere specified	-	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-	-	-	-
Losses	-	-	-	-	-	-	-	38,18	38,18
FINAL CONSUMPTION	327,97	-	726,64	-	832,14	-	-	606,99	2493,74
Industry	327,97	-	109,17	-	38,07	-	-	171,17	646,39
Transport	-	-	388,85	-	-	-	-	2,59	391,44
Households	-	-	219,05	-	794,0	-	-	253,26	1266,38
Commercial and public services	-	-	9,56	-	-	-	-	-	9,56
Agriculture, Forestry and Fishing	-	-	-	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-	-	179,97	179,97
Non-Energy Use	-	-	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES



Figure 3.1. - Total Primary Energy Supply (ktoe)

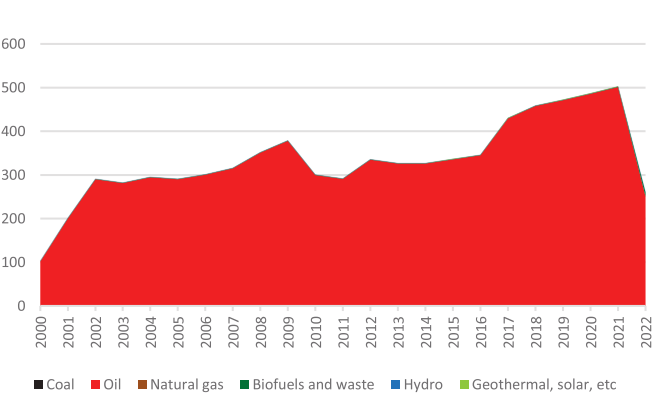


Figure 3.2. - Total Final Consumption (ktoe)

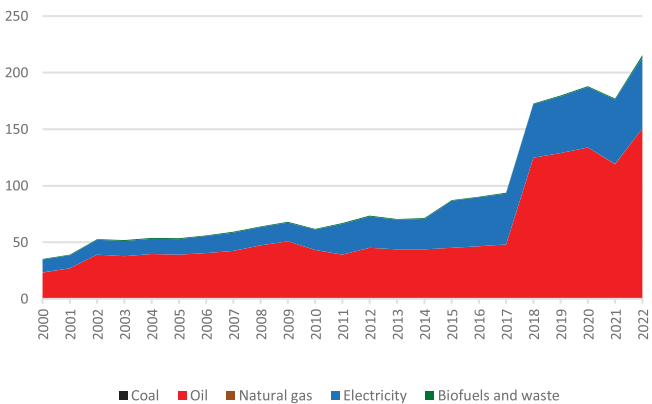


Figure 3.3. - Electricity Generation by Source (GWh)

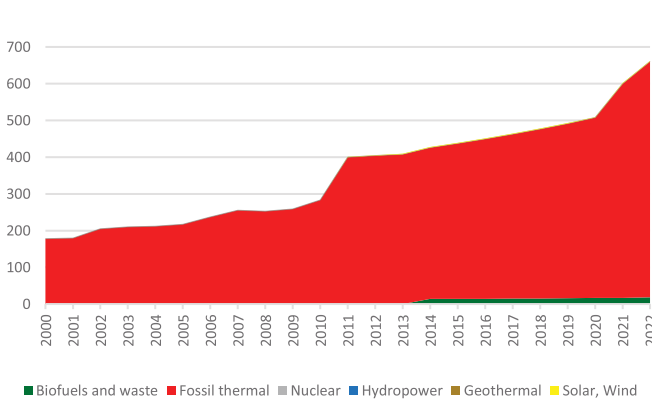


Figure 3.4. - Fuel Shares of Total Final Consumption

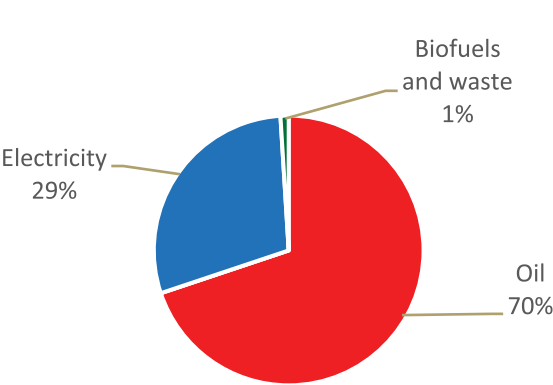


Figure 3.5. - Electricity Consumption by Sector

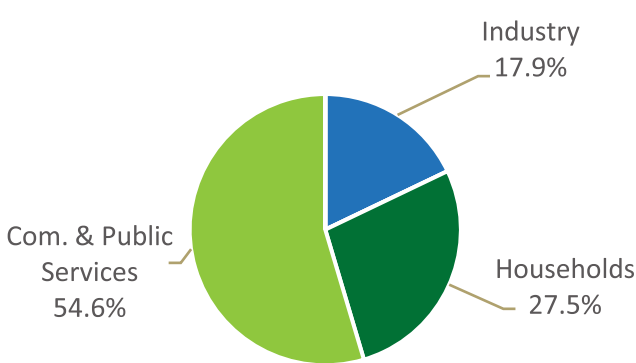
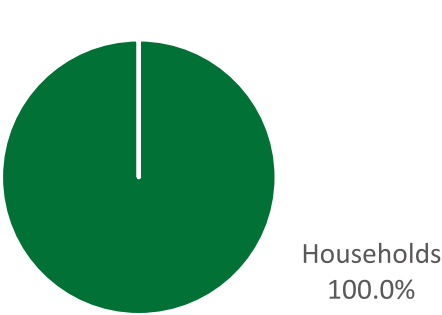


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	-	6,99	0,10	-	7,09
Imports (+)	509,27	2,11	-	-	511,39
Exports (-)	-	-	-	-	-
International Marine Bunkers (-)	-210,15	-	-	-	-210,15
International Aviation Bunkers (-)	-68,18	-	-	-	-68,18
Stock Changes (+ draw, - build)	20,05	-	-	-	20,05
TOTAL PRIMARY ENERGY SUPPLY	250,99	9,10	0,10	-	260,19
Transfers : Origin (-) and Destination (+)	-	0.00	0.00	-	0.00
Statistical Difference	-1,98	0.00	0.00	-10,14	-12,12
TRANSFORMATION Inputs (-) and Outputs (+)	-102,38	-6,99	-0,10	56,89	-52,57
Electricity plants	-102,38	-6,99	-0,10	56,89	-51,67
CHP Plants	-	-	-	-	-
Heat Plants	-	-	-	-	-
Coke ovens	-	-	-	-	-
Blast furnaces	-	-	-	-	-
Oil Refineries	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-
Charcoal production plants	-	-	-	-	-
Transformation not elsewhere specified	-	-0,91	-	-	-0,91
Energy Sector Own Use	-	-	-	1,15	1,15
Losses	-	-	-	3,06	3,06
FINAL CONSUMPTION	150,58	2,11	-	62,83	215,53
Industry	9,41	-	-	11,25	20,66
Transport	95,38	-	-	-	95,38
Households	7,90	2,11	-	17,28	27,29
Commercial and public services	0.00	-	-	34,31	34,31
Agriculture, Forestry and Fishing	0.00	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	37,79	-	-	-	37,79
Non-Energy Use	0,11	-	-	-	0,11

INDICATORS AND ENERGY BALANCES



Sierra Leone Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

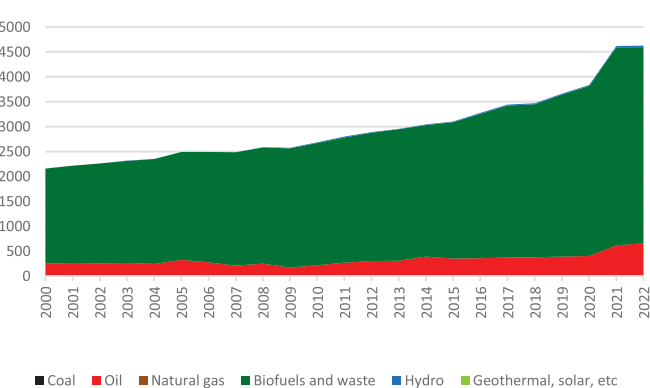


Figure 3.2. - Total Final Consumption (ktoe)

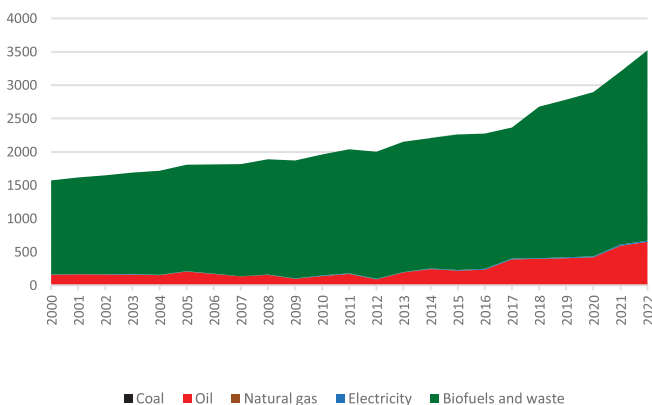


Figure 3.3. - Electricity Generation by Source (GWh)

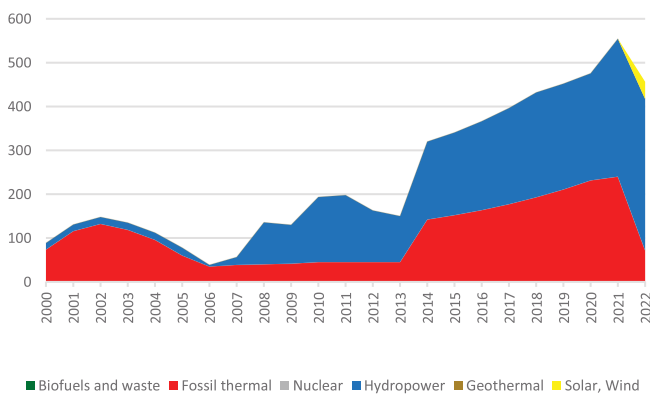


Figure 3.4. - Fuel Shares of Total Final Consumption

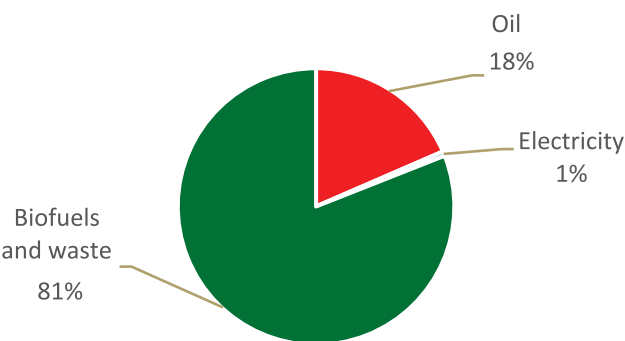


Figure 3.5. - Electricity Consumption by Sector

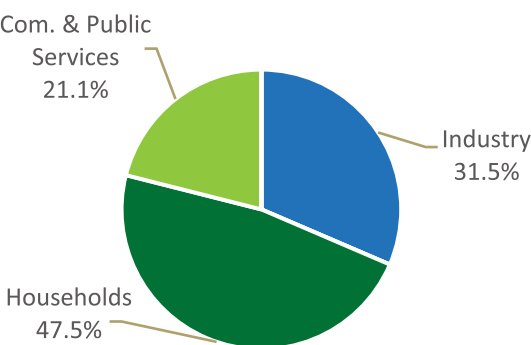
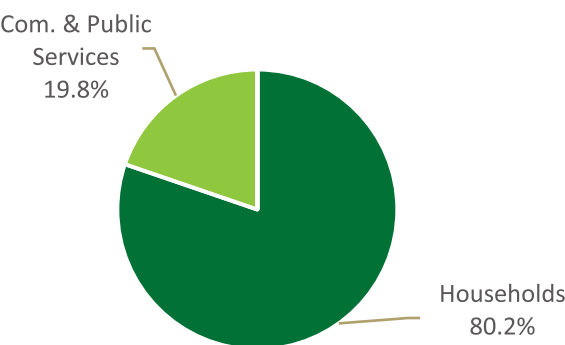


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Hydro	Other Sources	Electricity	Total of all energy sources
Production	-	3932,44	29,74	3,36	-	3965,55
Imports (+)	694,51	-	-	-	-	694,51
Exports (-)	-	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-4,20	-	-	-	-	-4,20
Stock Changes (+ draw, - build)	-27,42	-	-	-	-	-27,42
TOTAL PRIMARY ENERGY SUPPLY	662,8	3932,44	29,74	3,36	-18,53	4628,43
Transfers : Origin (-) and Destination (+)	-	-	0.00	0.00	0.00	0.00
Statistical Difference	-1,14	171,26	0.00	0.00	-0,51	169,61
TRANSFORMATION Inputs (-) and Outputs (+)	-12,71	-908,57	-29,74	-3,36	39,23	-915,15
Electricity plants	-12,71	-	-29,74	-3,36	39,23	-6,58
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-908,57	-	-	-	-908,57
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-
Losses	-	-	-	-	21,12	21,12
FINAL CONSUMPTION	651,32	2852,61	-	-	18,62	3522,56
Industry	322,78	-	-	-	5,86	328,64
Transport	319,35	-	-	-	-	319,35
Households	3,78	2289,11	-	-	8,84	2301,74
Commercial and public services	0,01	563,50	-	-	3,92	567,43
Agriculture, Forestry and Fishing	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	5,41	-	-	-	-	5,41
Non-Energy Use	-	-	-	-	-	0.00

INDICATORS AND ENERGY BALANCES



Somalia
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

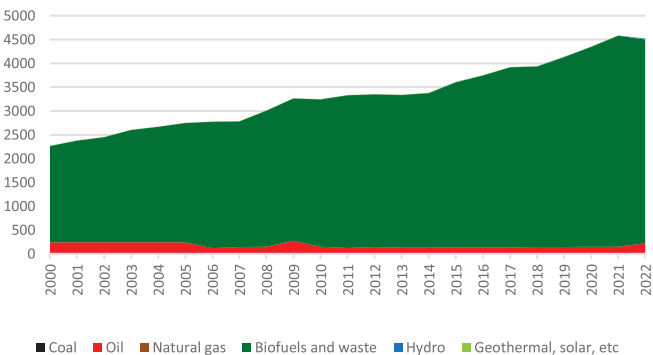


Figure 3.2. - Total Final Consumption (ktoe)

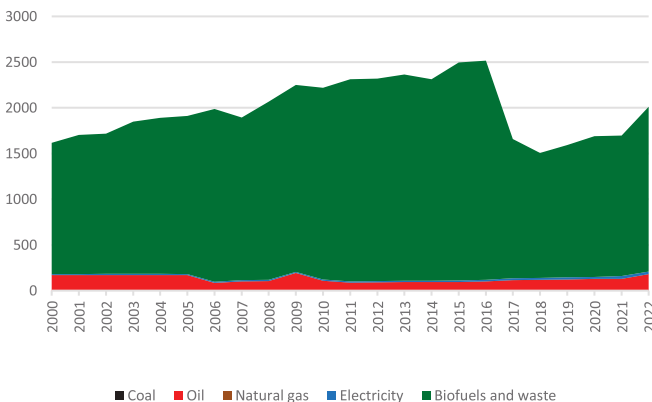


Figure 3.3. - Electricity Generation by Source (GWh)

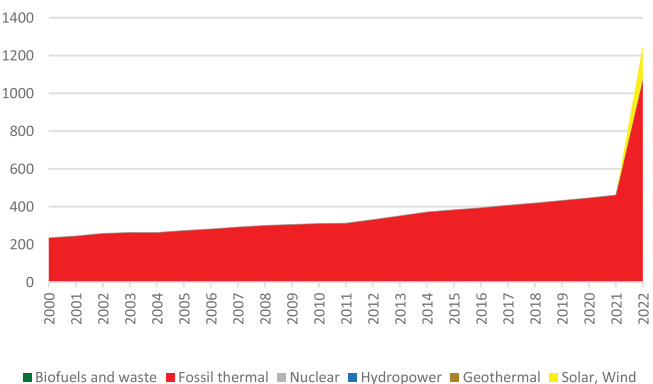


Figure 3.4. - Fuel Shares of Total Final Consumption

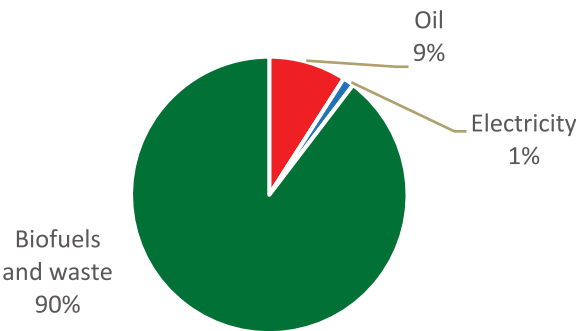


Figure 3.5. - Electricity Consumption by Sector

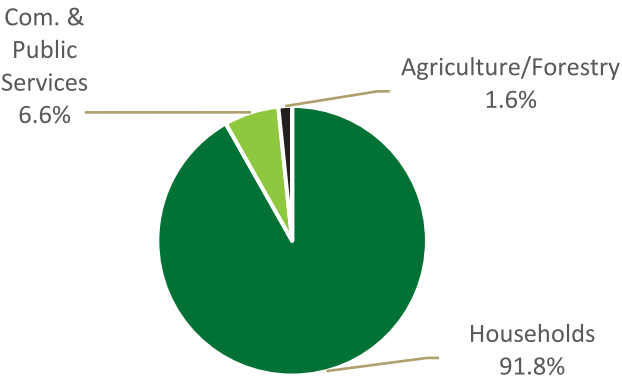
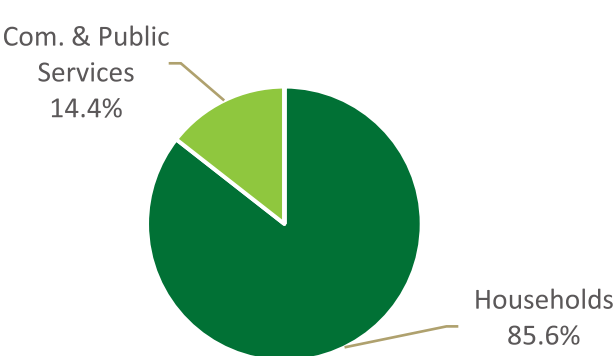


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	-	4283,98	15,19	-	4299,17
Imports (+)	248,64	2,11	-	-	248,64
Exports (-)	-	-	-	-	-
International Marine Bunkers (-)	-	-	-	-	-
International Aviation Bunkers (-)	-29,28	-	-	-	-29,28
Stock Changes (+ draw, - build)	-0,23	-	-	-	-0,23
TOTAL PRIMARY ENERGY SUPPLY	219,13	4283,98	15,19	0,00	4518,30
Transfers : Origin (-) and Destination (+)	-	-	-	-	-
Statistical Difference	-0,57	-132,90	-	-0,43	-133,90
TRANSFORMATION Inputs (-) and Outputs (+)	-37,43	-2614,95	-15,19	107,70	-2559,87
Electricity plants	-37,43	-6,99	-15,19	107,70	55,08
CHP Plants	-	-	-	-	-
Heat Plants	-	-	-	-	-
Coke ovens	-	-	-	-	-
Blast furnaces	-	-	-	-	-
Oil Refineries	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-
Charcoal production plants	-	-2614,95	-	-	-2614,95
Transformation not elsewhere specified	-	-	-	-	-
Energy Sector Own Use	-	-	-	69,00	69,00
Losses	-	-	-	12,90	12,90
FINAL CONSUMPTION	182,28	1801,92	-	26,23	2010,42
Industry	75,45	-	-	-	75,45
Transport	57,67	-	-	-	57,67
Households	31,62	1541,72	-	24,08	1597,42
Commercial and public services	6,88	260,20	-	1,72	268,80
Agriculture, Forestry and Fishing	-	-	-	0,43	0,43
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-
Non-Energy Use	10,66	-	-	-	10,66

INDICATORS AND ENERGY BALANCES



South Africa Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

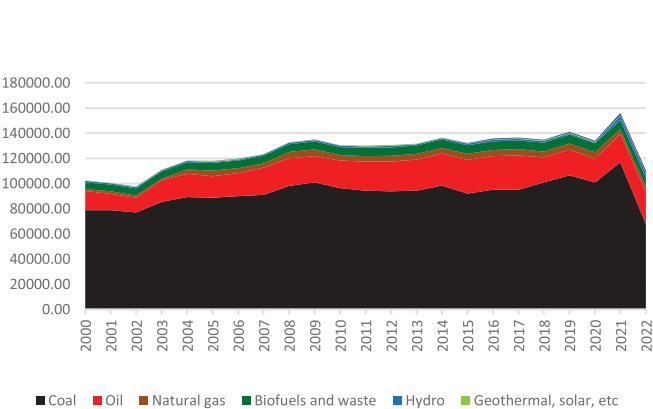


Figure 3.2. - Total Final Consumption (ktoe)

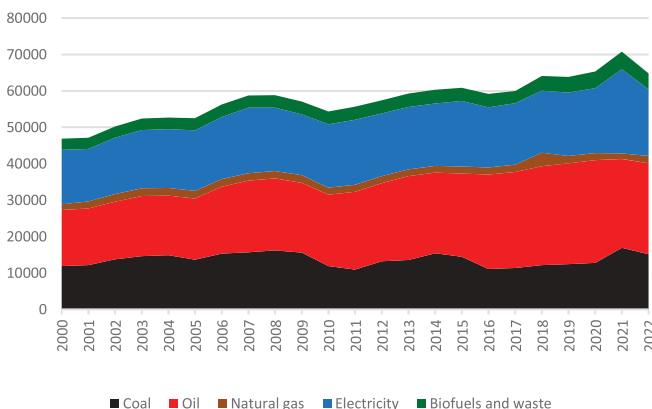


Figure 3.3. - Electricity Generation by Source (GWh)

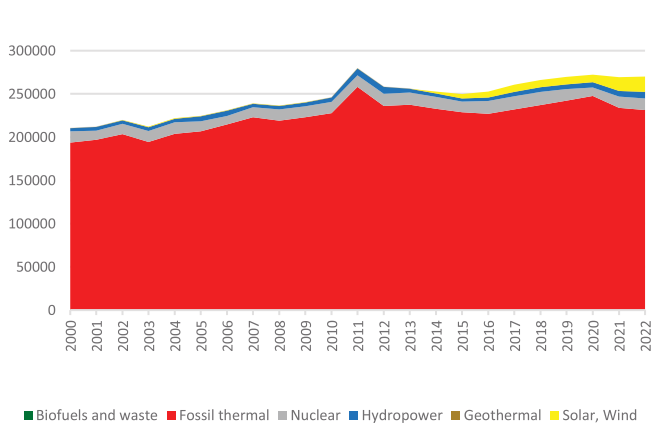


Figure 3.4. - Fuel Shares of Total Final Consumption

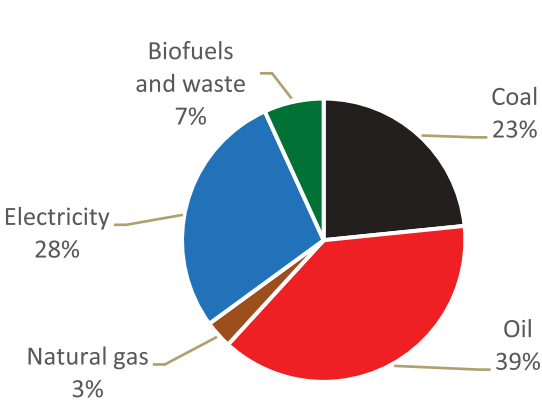


Figure 3.5. - Electricity Consumption by Sector

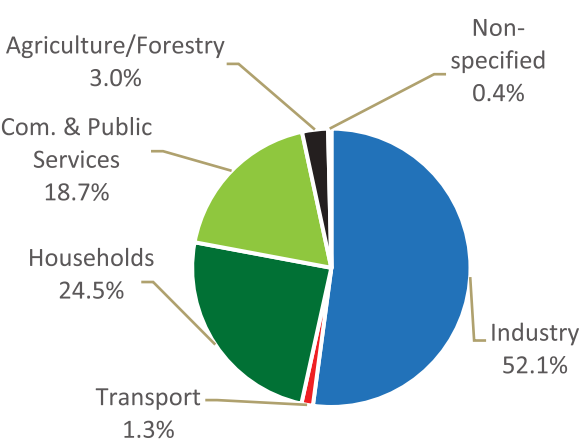
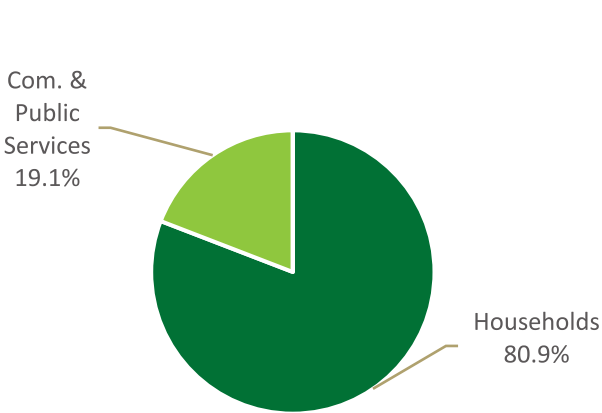


Figure 3.6. - Biofuels and Waste Consumption by Sector





South Africa
Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Coal / peat	Crude oil	Oil Products	Natural Gas	Biofuels & Waste	Nuclear	Hydro	Solar	Wind	Electricity	Total of all energy sources
Production	142304,03	5113,97	0.00	34,48	6658,76	3541,13	641,6	961,08	790,34	0.00	160045,43
Imports (+)	471,68	8423,80	17631,50	4030,20	-	-	-	-	-	-790,34	31515,96
Exports (-)	-46756,02	-	-2268,36	-	-	-	-	-	-	-1296,26	-50320,64
Intl. Marine Bunkers (-)	-	-	-2633,24	-	-	-	-	-	-	-	-2633,24
Intl. Aviation Bunkers (-)	-	-	-832,36	-	-	-	-	-	-	-	-832,36
Stock Changes (+ draw, - build)	-28245,27	2091,36	-1647,70	-	-	-	-	-	-	-	-27801,62
TOTAL PRIMARY ENERGY SUPPLY	67774,42	15629,12	10249,84	4064,67	6658,76	3541,13	641,65	961,08	790,34	-337,47	109973,54
Transfers : Origin (-) and Destination (+)	-	-5063,07	5066,89	-	-	-	-	-	-	-	3,82
Statistical difference	0,02	-0,84	3,58	-135,47	2,88	-	-	-	-	-1074,99	-1204,82
TRANSFORMATION Inputs (-) and Outputs (+)	-67787,10	-10566,90	9983,25	-1949,45	-2234,08	-3541,13	-641,65	-961,08	-790,34	23214,47	-55274,00
Electricity plants	-59543,66	-	94,40	-486,79	-3541,13	-641,65	-961,08	-790,34	23214,47	-42655,78	
CHP Plants	-	-	-	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	0,39	-	-	-	-	-	-	-	-	-	-
Oil Refineries	-	-10566,90	9888,85	-	-	-	-	-	-	-	-678,04
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-1747,29	-	-	-	-	-	-1747,29
Transformation not elsewhere specified	-8243,44	-	-	-1949,45	-	-	-	-	-	-	-10192,89
Energy Sector Own Use	-15179,46	-	384,18	96,73	-	-	-	-	-	3295,84	-11402,71
Losses	-	-	-	105,33	-	-	-	-	-	2363,44	2468,77
FINAL CONSUMPTION	15166,77	-	24912,22	2048,63	4421,80	-	-	-	-	18292,70	64842,12
Industry	9439,35	-	2231,34	2013,50	-	-	-	-	-	9533,91	23218,10
Transport	-	-	17000,81	0,19	-	-	-	-	-	244,71	17245,71
Households	2886,36	-	424,41	5,76	3575,19	-	-	-	-	4479,00	11370,71
Com. & Public Service	1372,19	-	167,64	29,19	846,61	-	-	-	-	3415,35	5830,98
Agriculture/Forestry	271,77	-	72,96	-	-	-	-	-	-	550,88	895,60
Others (Non Specified)	64,11	-	810,18	-	-	-	-	-	-	68,86	943,14
Non-Energy Use	1133,00	-	4204,87	-	-	-	-	-	-	0.00	5337,87

INDICATORS AND ENERGY BALANCES



South Sudan Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

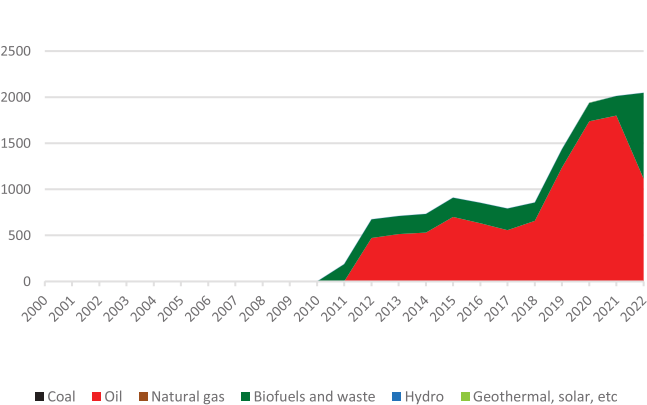


Figure 3.2. - Total Final Consumption (ktoe)

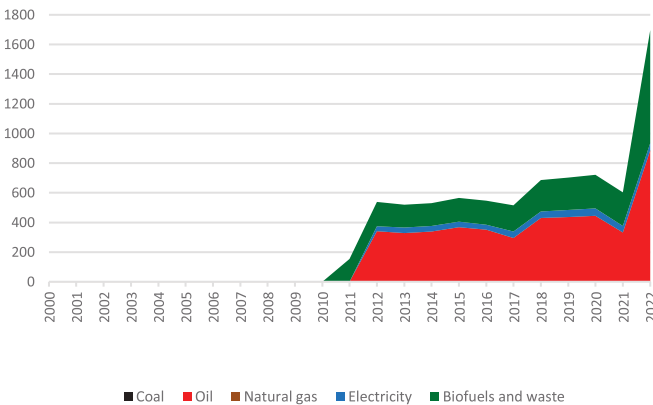


Figure 3.3. - Electricity Generation by Source (GWh)

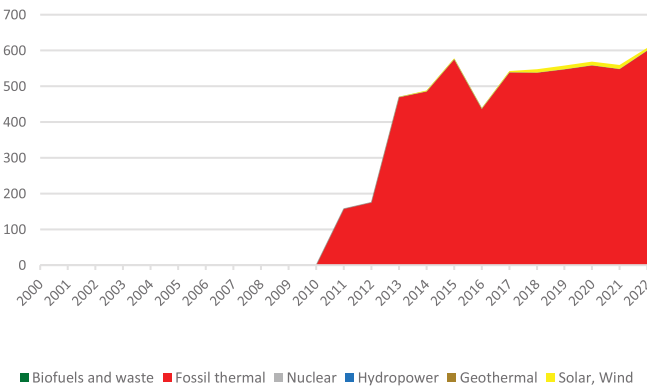


Figure 3.4. - Fuel Shares of Total Final Consumption

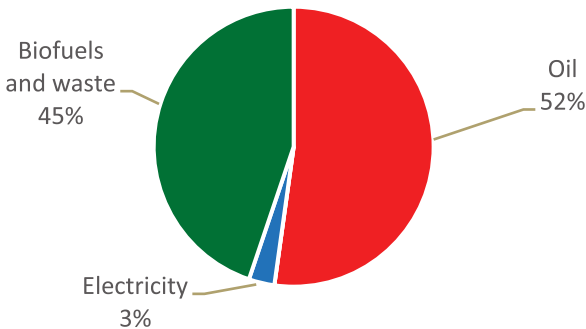


Figure 3.5. - Electricity Consumption by Sector

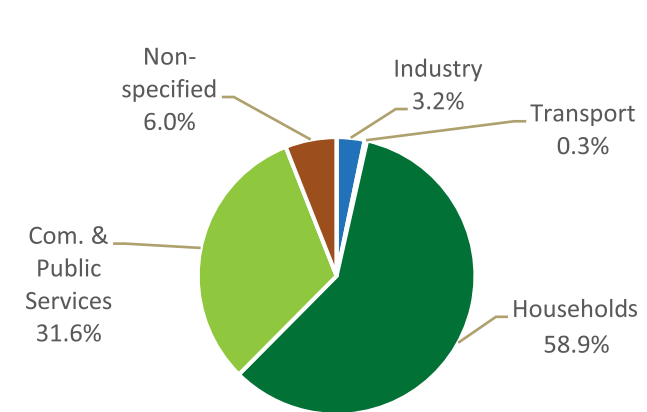
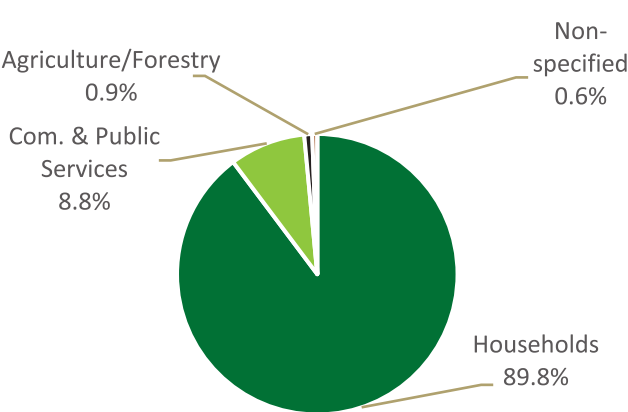


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Crude Oil	Oil Products	Biofuels and waste	Solar	Electricity	Total of all energy sources
Production	8677,82	-	933,20	0,64	-	9611,67
Imports (+)	-	1114,18	-	-	-	1114,18
Exports (-)	-8677,82	-	-	-	-	-8677,82
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-	-	-	-	-
Stock Changes (+ draw, - build)	-	-	-	-	-	-
TOTAL PRIMARY ENERGY SUPPLY	0.00	1114,18	933,20	0,64	-	2048,03
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	-	2,15	-5,81	-	-0,27	-3,93
TRANSFORMATION Inputs (-) and Outputs (+)	-	-219,53	-178,67	-0,64	52,24	-346,61
Electricity plants	-	-219,53	-	-0,64	52,24	-167,94
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-5,81	-	-	-5,81
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-172,86	-172,86	-	-	-172,86
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	1,54	-	-	-	1,54
Losses	-	5,22	-	-	2,14	7,36
FINAL CONSUMPTION	-	885,74	760,34	-	50,36	1696,44
Industry	-	10,96	-	-	1,63	12,60
Transport	-	798,21	-	-	0,15	798,36
Households	-	10,21	-	-	29,66	722,32
Commercial and public services	-	3,95	682,44	-	15,91	86,41
Agriculture, Forestry and Fishing	-	62,09	66,55	-	-	69,06
Non-specified (HH, Com. & PS., Agri.)	-	0,31	6,97	-	3,01	7,71
Non-Energy Use	-	-	4,38	-	-	-

INDICATORS AND ENERGY BALANCES

Sudan
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

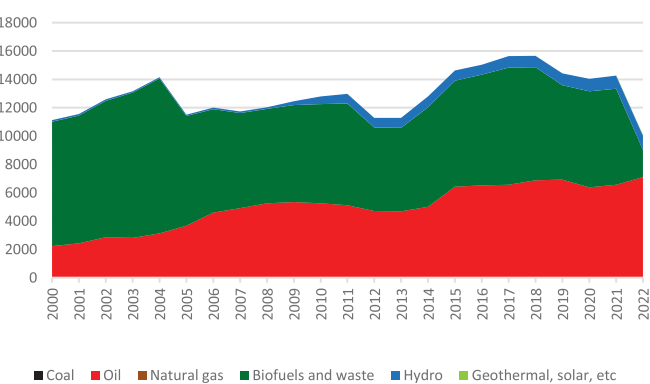


Figure 3.2. - Total Final Consumption (ktoe)

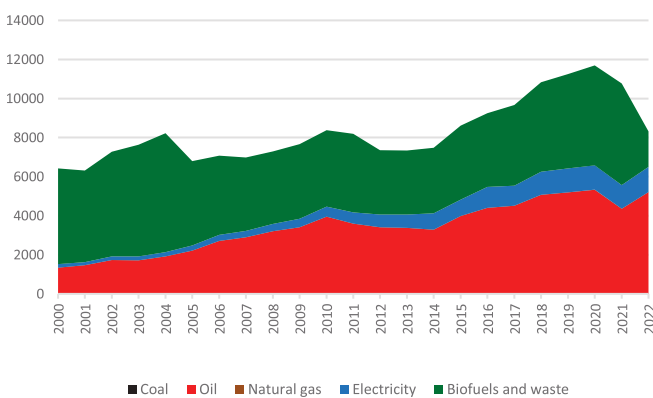


Figure 3.3. - Electricity Generation by Source (GWh)

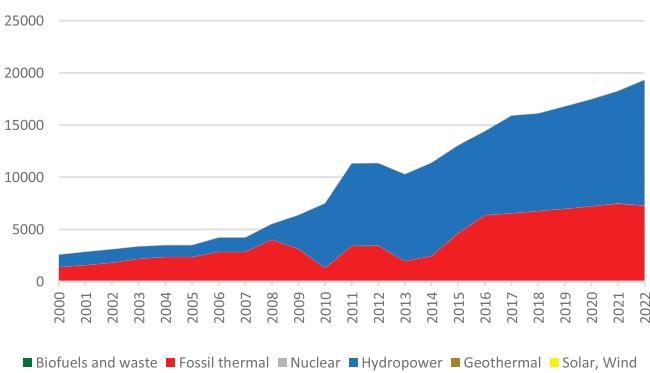


Figure 3.4. - Fuel Shares of Total Final Consumption

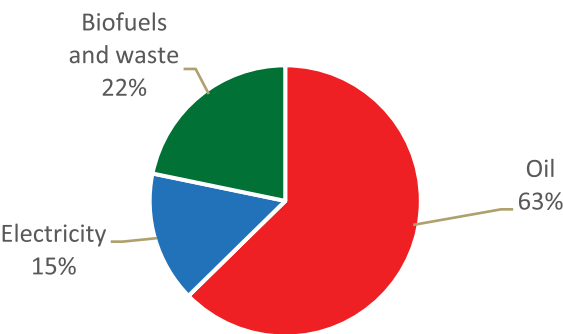


Figure 3.5. - Electricity Consumption by Sector

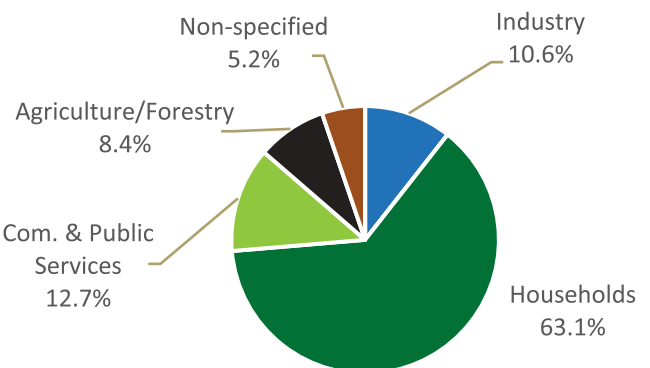
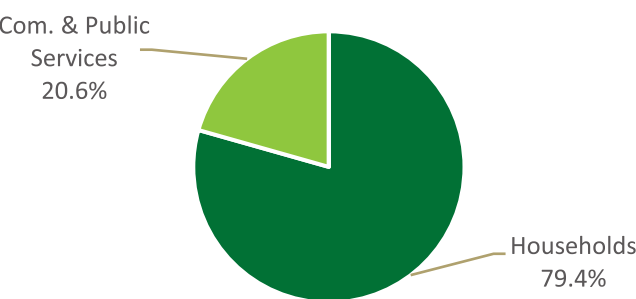


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Crude Oil	Oil Products	Biofuels and waste	Hydro	Electricity	Total of all energy sources
Production	-	-	1906,20	1035,59	-	5819,87
Imports (+)	1192,38	3333,34	-	-	88,25	4613,96
Exports (-)	-	-1273,95	-	-	-	-1273,95
International Marine Bunkers (-)	-	-18,31	-	-	-	-18,31
International Aviation Bunkers (-)	-	-183,33	-	-	-	-183,33
Stock Changes (+ draw, - build)	147,51	1028,68	-	-	-	1176,19
TOTAL PRIMARY ENERGY SUPPLY	4217,96	2886,42	1906,20	1035,59	88,25	10134,42
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	-0,57	-0,96	19,58	-	22,70	-40,75
TRANSFORMATION Inputs (-) and Outputs (+)	-4218,53	2349,76	-78,53	-0,64	1661,16	-1321,73
Electricity plants	-920,48	-900,14	-	-0,64	1661,16	-1195,05
CHP Plants	-	-	-	-	-	-
Heat Plants	-	-	-5,81	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-3298,06	3249,90	-	-	-	-48,16
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-	-78,53	-	-	-78,53
Transformation not elsewhere specified	-	-	-	-	-	-
Energy Sector Own Use	-	29,61	-	-	64,41	94,02
Losses	-	-	-	-	366,70	366,70
FINAL CONSUMPTION	-	5207,54	1808,09	-	1295,60	8311,23
Industry	-	434,53	-	-	137,15	571,68
Transport	-	4292,54	-	-	-	4292,54
Households	-	183,60	1435,44	-	817,20	2436,23
Commercial and public services	-	113,11	372,65	-	164,48	650,24
Agriculture, Forestry and Fishing	-	94,29	-	-	109,05	203,35
Non-specified (HH, Com. & PS., Agri.)	-	48,58	-	-	67,72	116,30
Non-Energy Use	-	40,89	-	-	-	40,89

INDICATORS AND ENERGY BALANCES



Tanzania
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

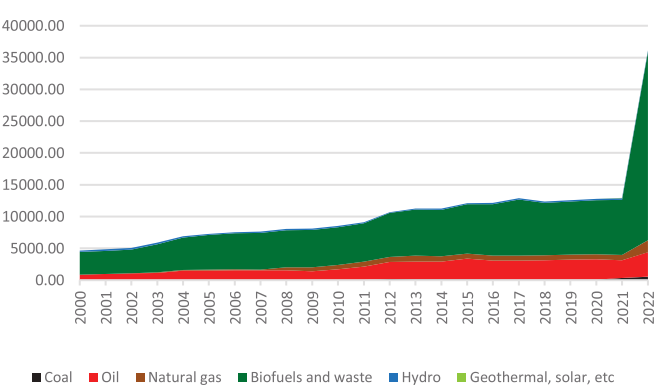


Figure 3.2. - Total Final Consumption (ktoe)

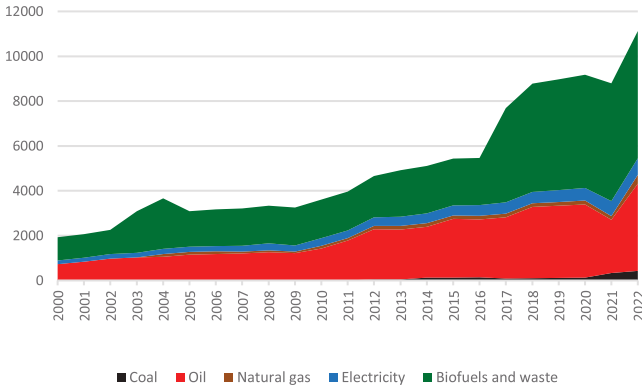


Figure 3.3. - Electricity Generation by Source (GWh)

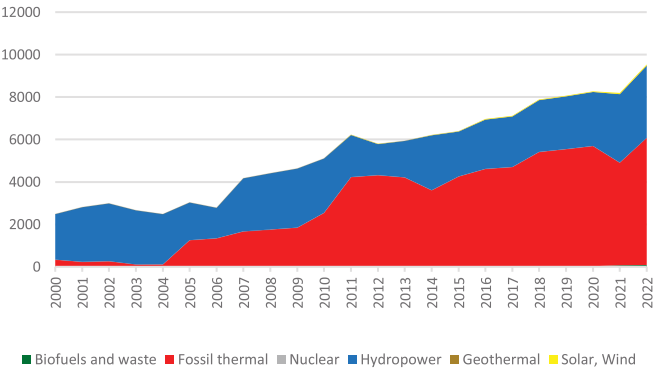


Figure 3.4. - Fuel Shares of Total Final Consumption

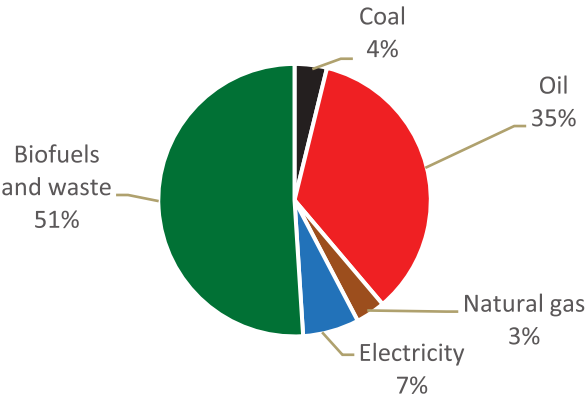


Figure 3.5. - Electricity Consumption by Sector

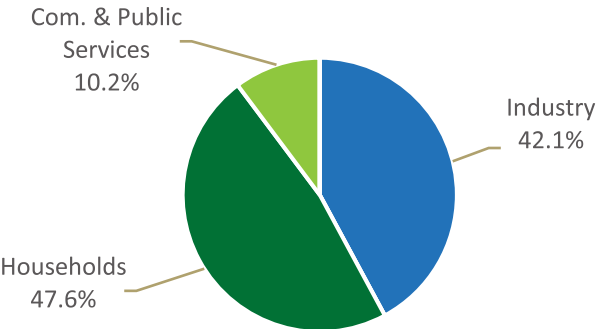
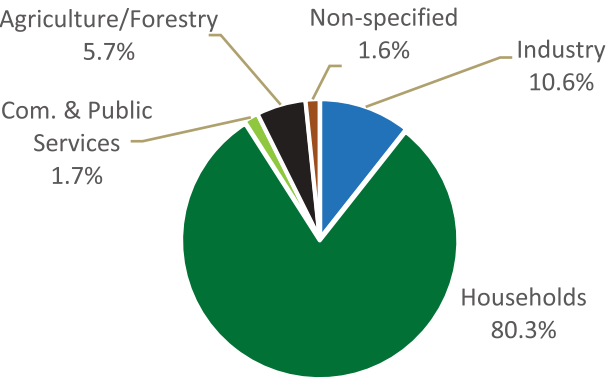


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Crude oil	Oil products	Natural Gas	Biofuels and waste	Hydro	Solar	Wind	Electricity	Total of all energy sources
Production	1 701,4	3,2	-	1 858,4	29 615,8	219,7	2,4	0,4	-	33 401,2
Imports (+)	-	-	4 014,3	-	-	-	-	22,93	13,5	4 027,7
Exports (-)	-1 160,3	-	-	-	-	-	-	-53,63	-	-1 160,3
International Marine Bunkers (-)	-	-	-	-	-	-	-	-	-	0.00
International Aviation Bunkers (-)	-	-	-150,0	-	-	-	-	-	-	-150,0
Stock Changes (+ draw, - build)	-	-	-	-	-	-	-	-	-	0.00
TOTAL PRIMARY ENERGY SUPPLY	541,1	3,2	3 865,0	1 858,4	29 615,8	219,7	2,4	0,4	13,5	36 119,4
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-	-	-
Statistical Difference	-	-	-14,8	-6,3	1,0	-	-	-	129,6	109,5
TRANSFORMATION Inputs (-) and Outputs (+)	-16,1	-	-192,5	-1 532,2	-12 478,0	-219,7	-2,4	-0,4	902,2	-13 539,1
Electricity plants	-16,1	-	-192,5	-1 532,2	-25,0	-219,7	-2,4	-0,4	902,2	-1 086,1
CHP Plants	-	-	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-12 453,0	-	-	-	-	-12 453,0
Transformation not elsewhere specified	-	-	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	3,7	-	-	-	-	9,0	12,7
Losses	-	-	-	-	-	-	-	-	120,5	120,5
FINAL CONSUMPTION	525,0	3,3	3 687,2	328,9	17 136,7	-	-	-	656,5	22 337,5
Industry	525,0	-	771,0	260,0	1 822,9	-	-	-	276,6	3 655,4
Transport	-	-	2 674,9	56,1	0.00	-	-	-	-	2 731,0
Households	-	-	101,5	3,2	13 763,4	-	-	-	312,8	14 180,9
Commercial and public services	-	-	90,4	9,6	288,5	-	-	-	67,2	455,6
Agriculture, Forestry and Fishing	-	-	-	-	981,5	-	-	-	-	981,5
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	280,4	-	-	-	-	280,4
Non-Energy Use	-	3,3	49,4	-	0.00	-	-	-	-	52,7

INDICATORS AND ENERGY BALANCES

Togo
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

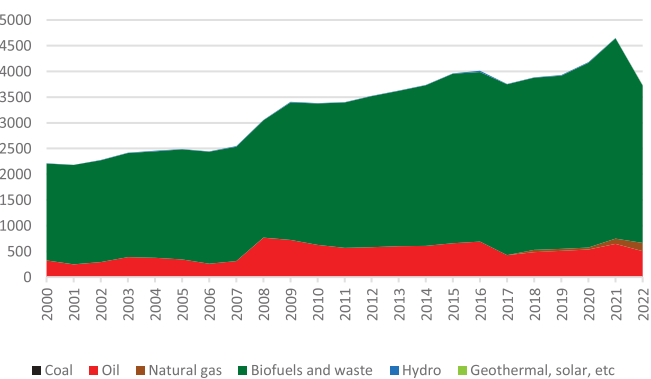


Figure 3.2. - Total Final Consumption (ktoe)

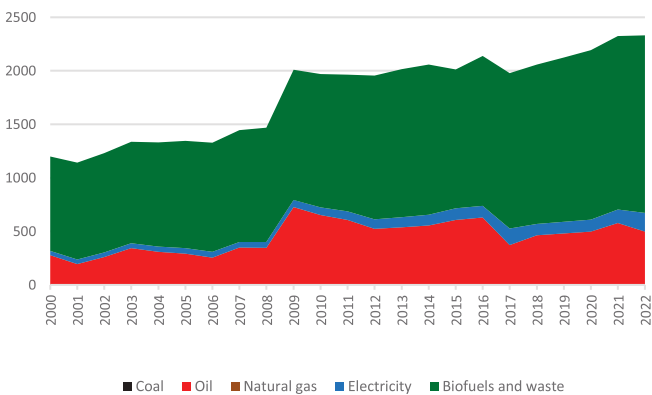


Figure 3.3. - Electricity Generation by Source (GWh)

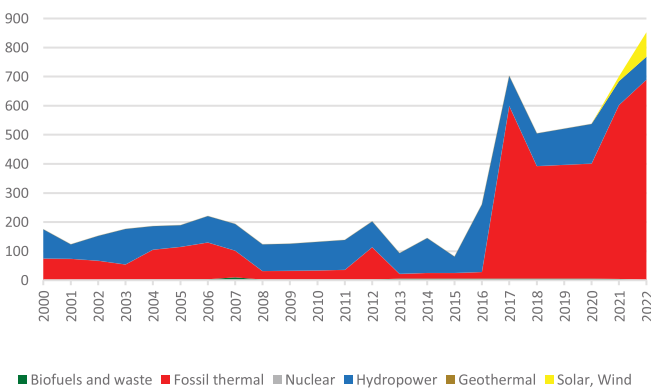


Figure 3.4. - Fuel Shares of Total Final Consumption

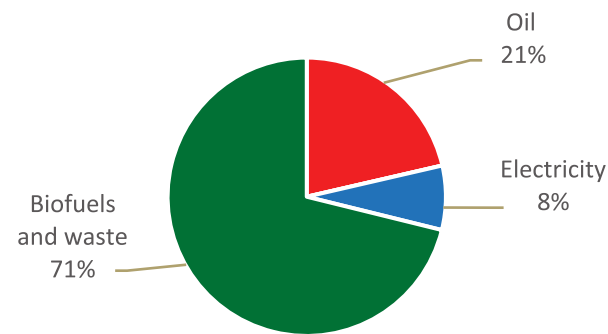


Figure 3.5. - Electricity Consumption by Sector

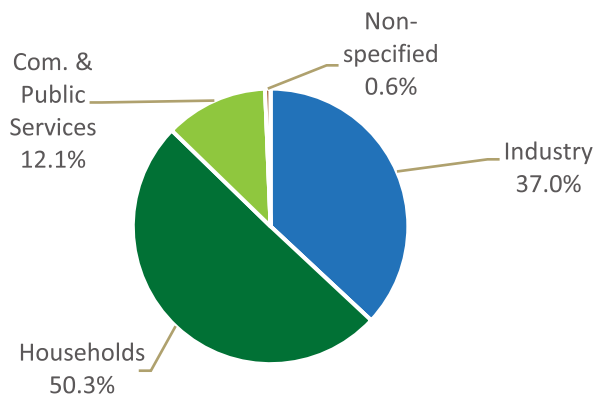
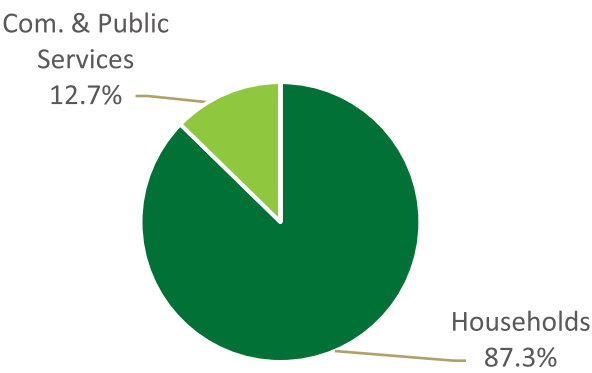


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Natural Gas	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	0.00	3055,45	6,74	7,24	-	3069,43
Imports (+)	599,04	164,41	42,98	-	-	96,82	860,26
Exports (-)	-	-	-	-	-	-	-
International Marine Bunkers (-)	-7,19	-	-	-	-	-	-7,19
International Aviation Bunkers (-)	-96,90	-	-	-	-	-	-96,90
Stock Changes (+ draw, - build)	7,37	0.00	-	-	-	-	7,37
TOTAL PRIMARY ENERGY SUPPLY	502,31	164,41	3055,45	6,74	7,24	96,82	3832,96
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-
Statistical Difference	1,24	-	-	-	-	-22,09	-20,86
TRANSFORMATION Inputs (-) and Outputs (+)	-2,35	-164,41	-1396,71	-6,74	-7,24	73,28	-1504,16
Electricity plants	-2,35	-164,41	-0,41	-6,74	-7,24	73,28	-107,45
CHP Plants	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-1396,71	-	-	-	-1396,71
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	1,07	1,07
Losses	-	-	-	-	-	17,39	17,39
FINAL CONSUMPTION	498,73	-	1658,74	-	-	173,73	2331,20
Industry	25,15	-	-	-	-	64,21	89,36
Transport	408,48	-	-	-	-	-	408,48
Households	41,10	-	1448,24	-	-	87,39	1576,74
Commercial and public services	18,81	-	210,50	-	-	21,02	250,33
Agriculture, Forestry and Fishing	-	-	-	-	-	-	-
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	1,11	1,11
Non-Energy Use	5,18	-	-	-	-	-	5,18

INDICATORS AND ENERGY BALANCES

Tunisia
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

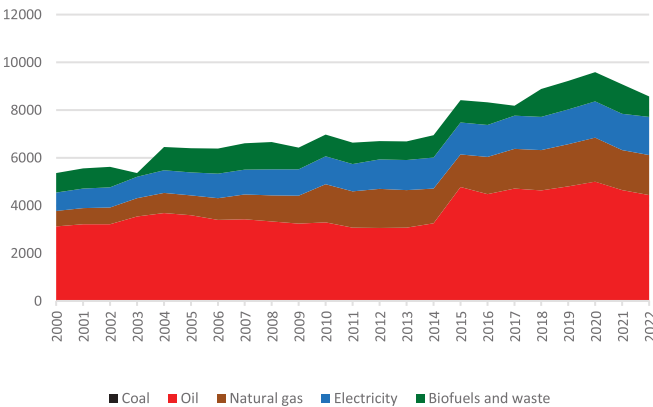
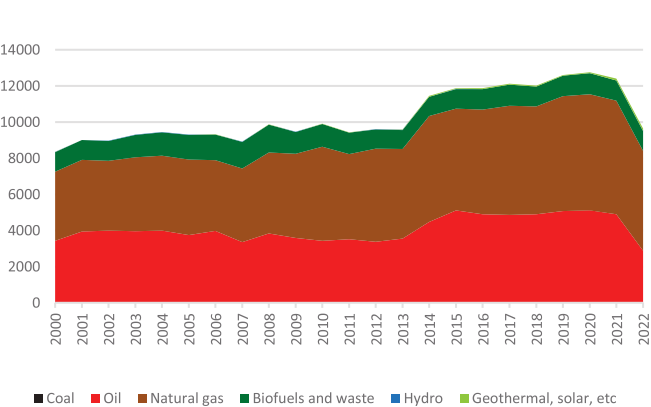


Figure 3.3. - Electricity Generation by Source (GWh)

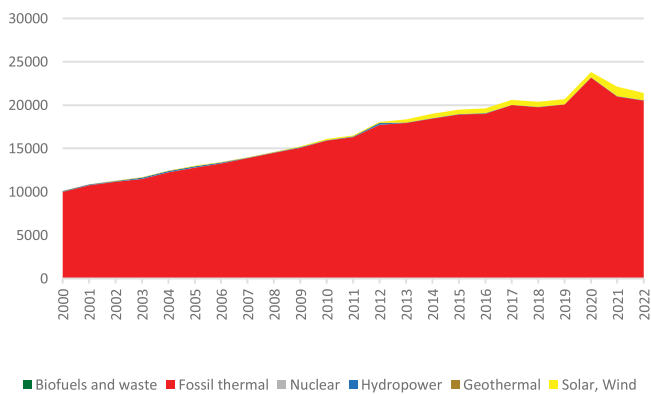


Figure 3.4. - Fuel Shares of Total Final Consumption

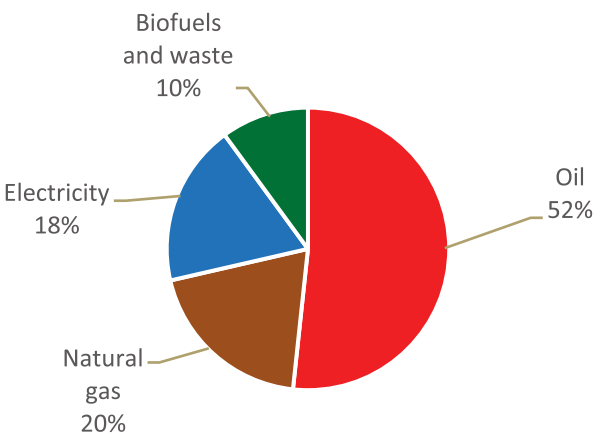


Figure 3.5. - Electricity Consumption by Sector

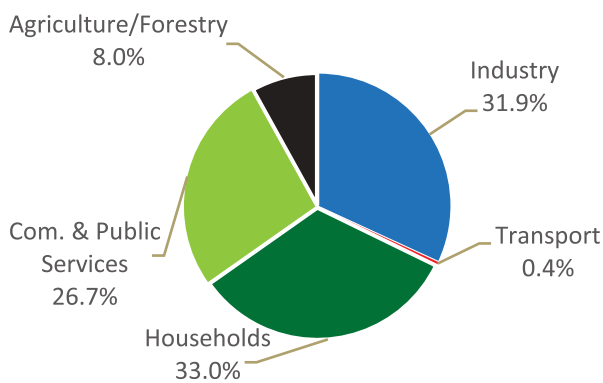
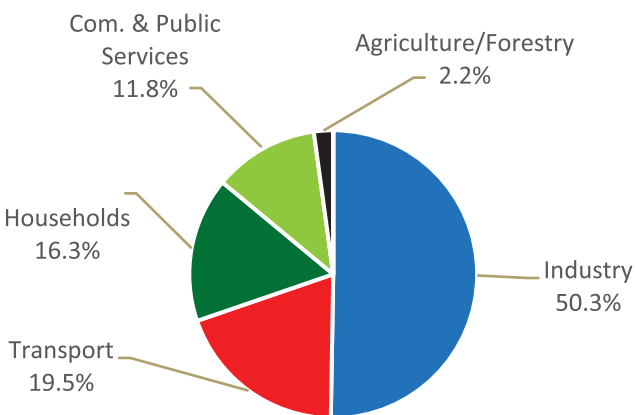


Figure 3.6. - Natural Gas Consumption by Sector





Tunisia
Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Oil Products	Natural Gas	Biofuels & Waste	Hydro	Solar	Wind	Others Sources	Electricity	Heat	Total of all energy sources
Production	-	2111,65	1108,85	1,28	92,82	27,68	18,42	0.00	74,88	3435,57
Imports (+)	3508,09	3412,43	-	-	-	-	-	234,41	-	7154,94
Exports (-)	-653,09	-	-	-	-	-	-	-13,20	-	-666,30
Intl. Marine Bunkers (-)	-7,95	-	-	-	-	-	-	-	-	-7,95
Intl. Aviation Bunkers (-)	-219,52	-	-	-	-	-	-	-	-	-219,52
Stock Changes (+ draw, - build)	248,73	-	-	-	-	-	-	-	-	248,73
TOTAL PRIMARY ENERGY SUPPLY	2876,26	5524,08	1108,85	1,28	92,82	27,68	18,42	221,21	74,88	9945,47
Transfers : Origin (-) and Destination (+)	55,61	-	-	-	-	-	-	-	-	55,61
Statistical difference	-99,26	30,60	0,07	-	-	-	-	6,81	-	-61,70
TRANSFORMATION Inputs (-) and Outputs (+)	1463,45	-3635,10	-247,14	-1,28	-27,45	-27,68	-18,42	1841,99	-74,88	-726,52
Electricity plants	-12,94	-3440,28	-	-1,28	-27,45	-27,68	-18,42	1776,02	-74,88	-1826,90
CHP Plants	-	-194,82	-	-	-	-	-	65,97	-	-128,86
Heat Plants	-	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-
Oil Refineries	1476,38	-	-	-	-	-	-	-	-	1476,38
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-247,14	-	-	-	-	-	-	-247,14
Transformation not elsewhere specified	-	-	-	-	-	-	-	-	-	-
Energy Sector Own Use	64,06	169,00	-	-	-	-	-	67,09	2,42	300,15
Losses	-	-	-	-	-	-	-	400,52	-	400,52
FINAL CONSUMPTION	751,46	1689,38	861,63	-	65,29	-	-	1588,78	-	8635,60
Industry	2420,58	849,26	-	-	-	-	-	506,11	-	2106,83
Transport	627,86	329,04	-	-	-	-	-	5,76	-	2755,37
Households	94,77	274,90	844,55	-	62,13	-	-	524,72	-	2334,16
Com. & Public Service	366,15	199,62	17,08	-	3,16	-	-	424,34	-	738,97
Agriculture/Forestry	-	36,56	-	-	-	-	-	127,85	-	530,56
Others (Non Specified)	169,71	-	-	-	-	-	-	-	-	0.00
Non-Energy Use	-	-	-	-	-	-	-	-	-	169,71

INDICATORS AND ENERGY BALANCES

Uganda
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

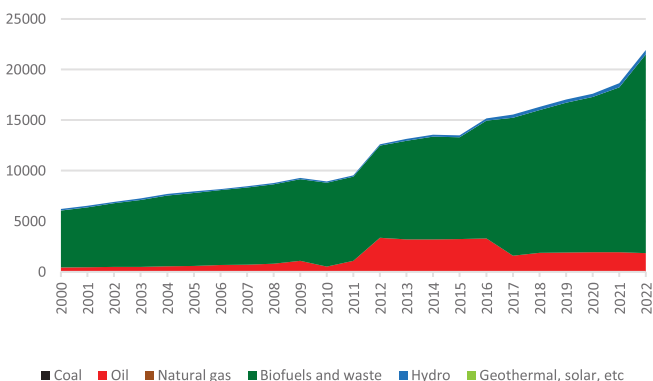


Figure 3.2. - Total Final Consumption (ktoe)

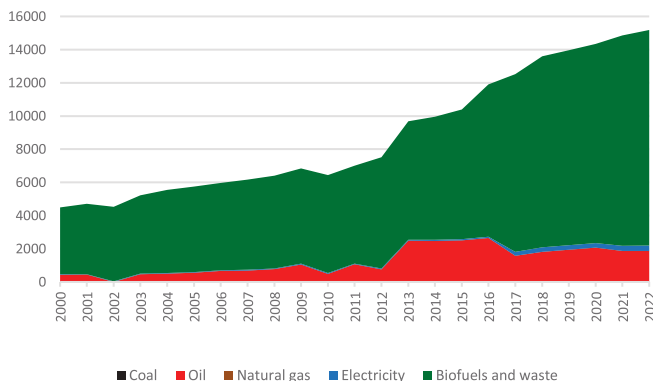


Figure 3.3. - Electricity Generation by Source (GWh)

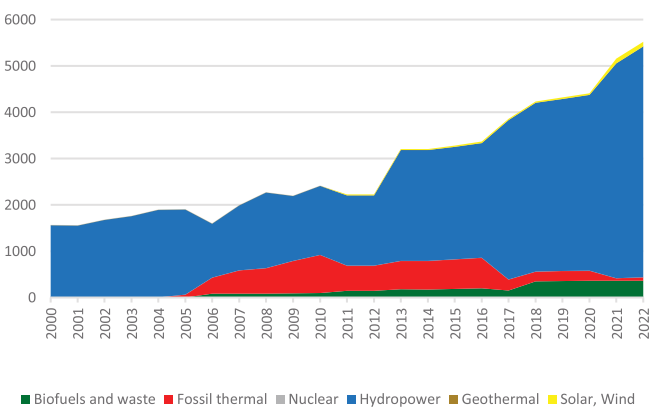


Figure 3.4. - Fuel Shares of Total Final Consumption

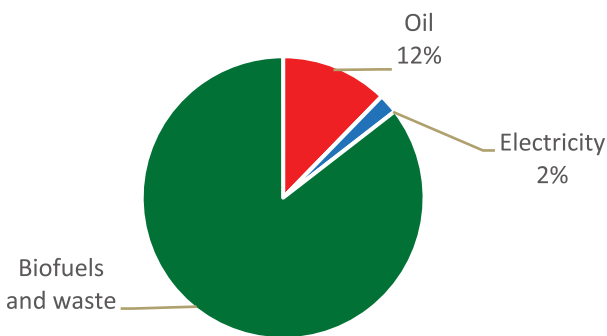


Figure 3.5. - Electricity Consumption by Sector

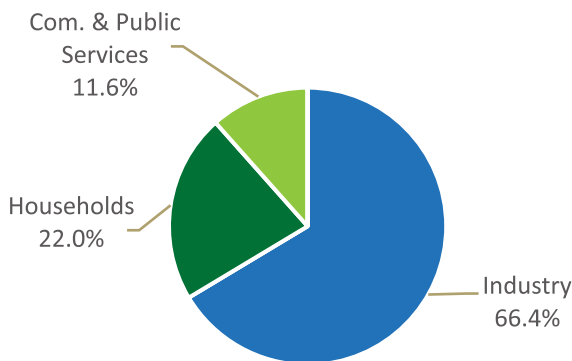
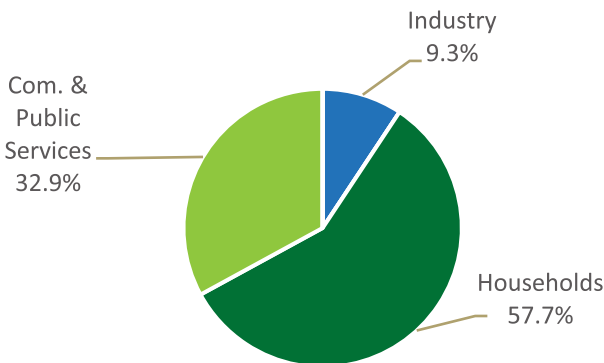


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Oil products	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	-	19641,48	428,45	8,54	-	20078,48
Imports (+)	1964,51	0,34	-	-	2,42	1967,26
Exports (-)	-	-	-	-	-36,56	-36,56
International Marine Bunkers (-)	-	-	-	-	-	-
International Aviation Bunkers (-)	-97,13	-	-	-	-	-97,13
Stock Changes (+ draw, - build)	-6,03	-	-	-	-	-6,03
TOTAL PRIMARY ENERGY SUPPLY	1861,35	19641,82	428,45	8,54	-34,14	21906,02
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-
Statistical Difference	-4,04	-5,92	-	-	0,70	-9,26
TRANSFORMATION Inputs (-) and Outputs (+)	-	-6668,87	-428,45	-8,54	480,58	-6625,29
Electricity plants	-	-	-428,45	-8,54	443,43	6,44
CHP Plants	-	-442,51	-	-	37,14	-405,37
Heat Plants	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-
Charcoal production plants	-	-5354,83	-	-	-	-5354,83
Transformation not elsewhere specified	-	-871,53	-	-	-	-871,53
Energy Sector Own Use	-	-	-	-	10,94	10,94
Losses	-	-	-	-	95,80	95,80
FINAL CONSUMPTION	1865,38	12978,86	-	-	339,00	15183,25
Industry	391,19	1209,59	-	-	225,07	1825,85
Transport	1251,00	-	-	-	-	1251,00
Households	31,48	7493,20	-	-	74,73	7599,41
Commercial and public services	14,16	4276,07	-	-	39,20	4329,43
Agriculture, Forestry and Fishing	177,55	-	-	-	-	177,55
Non-specified (HH, Com. & PS., Agri.)	-	-	-	-	-	-
Non-Energy Use	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES



Western Sahara
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)



Figure 3.3. - Electricity Generation by Source (GWh)



Figure 3.4. - Fuel Shares of Total Final Consumption



Figure 3.5. – Electricity Consumption by Sector



Figure 3.6. – Biofuels and Waste Consumption by Sector





Western Sahara

Energy Balance 2022

Thousand Tonnes of Oil Equivalent (ktoe)	Coal / peat	Crude oil	Oil Products	Natural Gas	Biofuels & Waste	Nuclear	Hydro	Solar	Wind	Electricity	Total of all energy sources
Production	-	-	-	-	-	-	-	-	-	-	-
Imports (+)	-	-	-	-	-	-	-	-	-	-	-
Exports (-)	-	-	-	-	-	-	-	-	-	-	-
Intl. Marine Bunkers (-)	-	-	-	-	-	-	-	-	-	-	-
Intl. Aviation Bunkers (-)	-	-	-	-	-	-	-	-	-	-	-
Stock Changes (+ draw, - build)	-	-	-	-	-	-	-	-	-	-	-
TOTAL PRIMARY ENERGY SUPPLY	-	-	-	-	-	-	-	-	-	-	-
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-	-	-	-
Statistical difference	-	-	-	-	-	-	-	-	-	-	-
TRANSFORMATION Inputs (-) and Outputs (+)	-	-	-	-	-	-	-	-	-	-	-
Electricity plants	-	-	-	-	-	-	-	-	-	-	-
CHP Plants	-	-	-	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-	-	-	-	-	-
Transformation not elsewhere specified	-	-	-	-	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	-	-	-	-	-	-
Losses	-	-	-	-	-	-	-	-	-	-	-
FINAL CONSUMPTION	-	-	-	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-	-	-	-
Transport	-	-	-	-	-	-	-	-	-	-	-
Households	-	-	-	-	-	-	-	-	-	-	-
Com. & Public Service	-	-	-	-	-	-	-	-	-	-	-
Agriculture/Forestry	-	-	-	-	-	-	-	-	-	-	-
Others (Non Specified)	-	-	-	-	-	-	-	-	-	-	-
Non-Energy Use	-	-	-	-	-	-	-	-	-	-	-

INDICATORS AND ENERGY BALANCES

Zambia
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

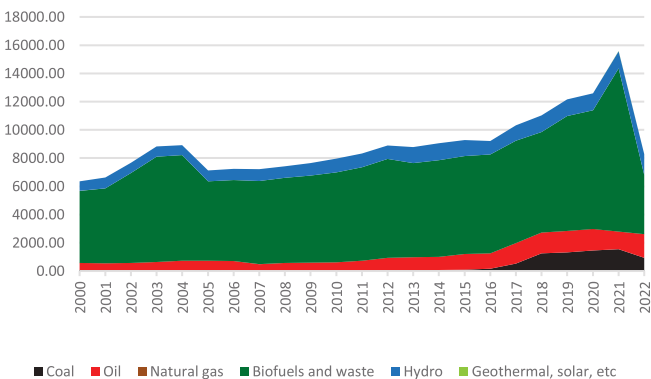


Figure 3.2. - Total Final Consumption (ktoe)

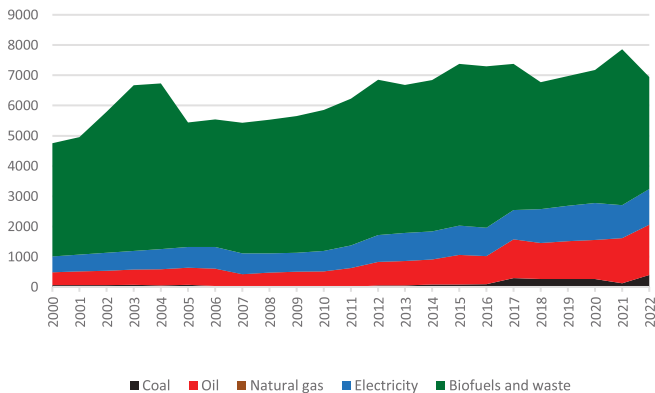


Figure 3.3. - Electricity Generation by Source (GWh)

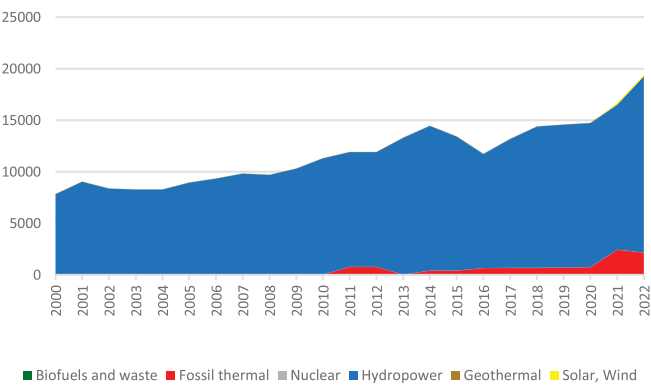


Figure 3.4. - Fuel Shares of Total Final Consumption

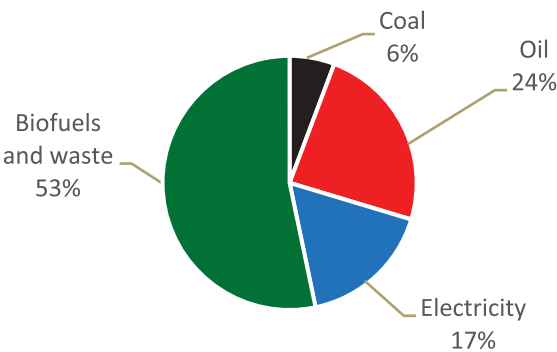


Figure 3.5. - Electricity Consumption by Sector

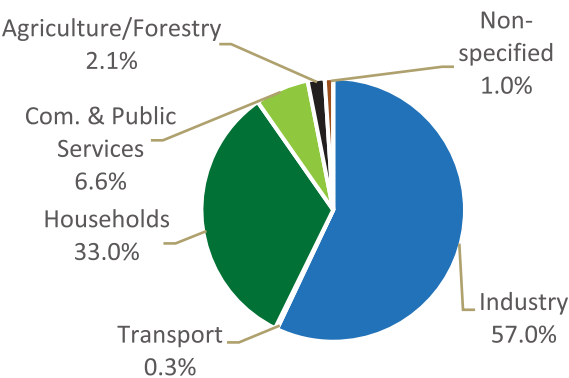
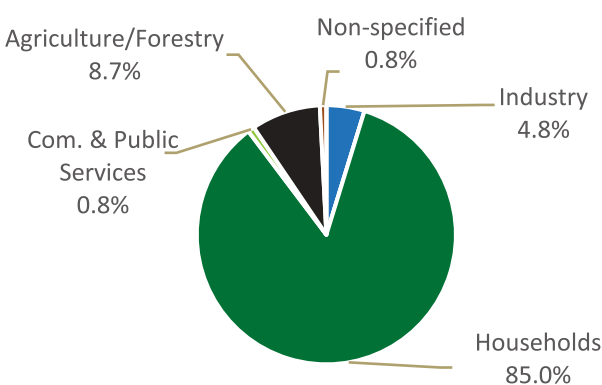


Figure 3.6. - Biofuels and Waste Consumption by Sector





Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Crude Oil	Oil Product	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	961,36	-	-	2666,64	1469,38	12,31	-	5109,68
Imports (+)	76,85	46,58	1639,04	42,98	-	-	1,55	1764,02
Exports (-)	-55,28	-	-	-	-	-	-251,33	-306,61
International Marine Bunkers (-)	-	-	-2631,72	-	-	-	-	-2631,72
International Aviation Bunkers (-)	-	-	-24,20	-	-	-	-	-24,20
Stock Changes (+ draw, - build)	-54,84	15,15	2645,56	1522,63	-	-	-	4128,50
TOTAL PRIMARY ENERGY SUPPLY	928,08	61,74	1628,69	4189,27	1469,38	12,31	-249,79	8039,68
Transfers : Origin (-) and Destination (+)	-	-	-	-	-	-	-	-
Statistical Difference	0,01	-5,86	-2,35	-1742,60	-	-	39,47	-1706,05
TRANSFORMATION Inputs (-) and Outputs (+)	-530,77	-62,32	30,76	-2234,08	-1469,38	-12,31	1668,02	-2610,07
Electricity plants	-530,77	-	-28,16	-486,79	-1469,38	-12,31	1668,02	-859,38
CHP Plants	-	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-
Oil Refineries	-	-62,32	58,92	-	-	-	-	-3,40
Coal-to-liquids plants	-	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-1747,29	-	-	-	-1747,29
Transformation not elsewhere specified	-	-	-	0.00	-	-	-	-
Energy Sector Own Use	-	-	1,12	-	-	-	23,24	24,36
Losses	-	-	-	-	-	-	170,89	170,89
FINAL CONSUMPTION	397,30	-	1660,67	3697,79	-	-	1184,64	6940,41
Industry	397,30	-	576,61	176,02	-	-	675,33	1825,27
Transport	-	-	895,54	-	-	-	3,18	898,72
Households	-	-	7,38	3141,43	-	-	391,10	3539,92
Commercial and public services	-	-	9,33	30,55	-	-	78,10	117,98
Agriculture, Forestry and Fishing	-	-	35,71	319,97	-	-	24,63	380,31
Non-specified (HH, Com. & PS., Agri.)	-	-	56,81	29,81	-	-	12,31	98,93
Non-Energy Use	-	-	79,29	-	-	-	-	79,29

INDICATORS AND ENERGY BALANCES



Zimbabwe
Indicators

Figure 3.1. - Total Primary Energy Supply (ktoe)

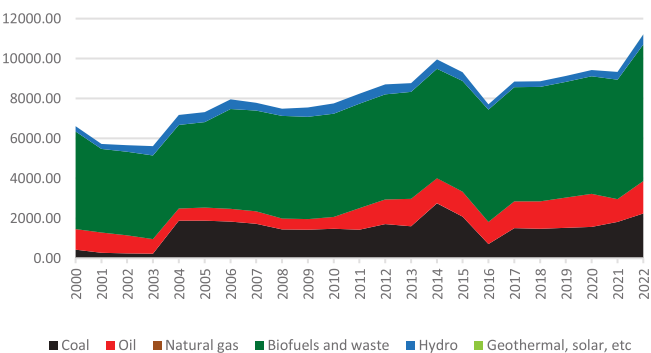


Figure 3.2. - Total Final Consumption (ktoe)

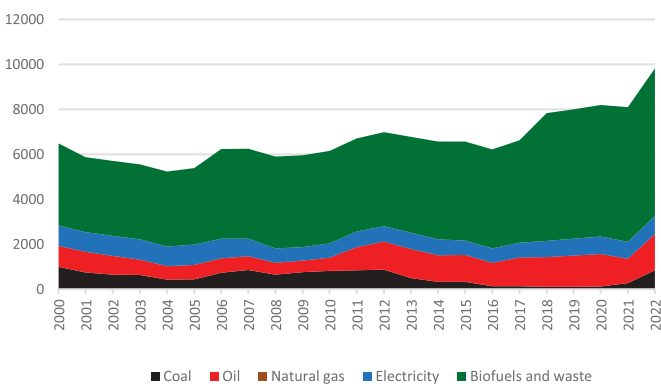


Figure 3.3. - Electricity Generation by Source (GWh)

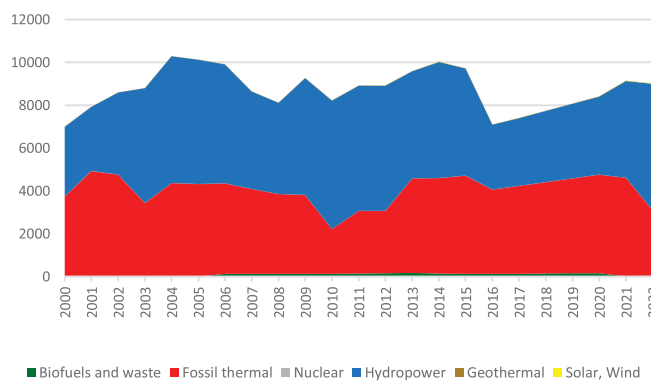


Figure 3.4. - Fuel Shares of Total Final Consumption

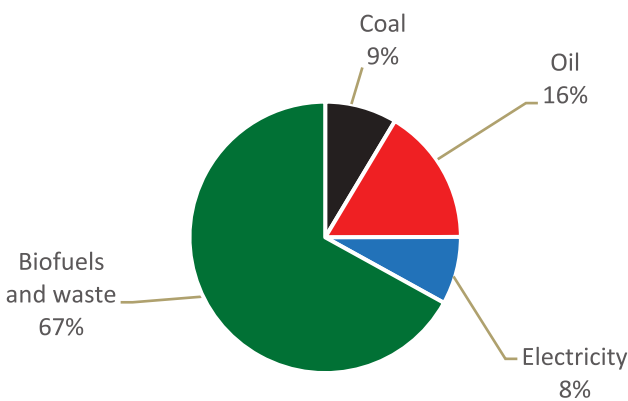


Figure 3.5. - Electricity Consumption by Sector

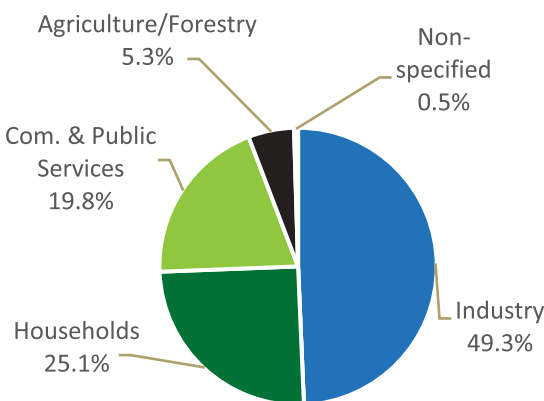
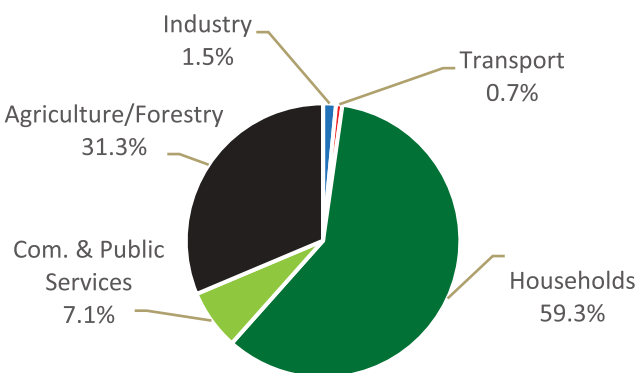


Figure 3.6. - Biofuels and Waste Consumption by Sector



Thousand Tonnes of Oil Equivalent (ktoe)	Coal and Coal Products	Oil Product	Biofuels and waste	Hydro	Solar	Electricity	Total of all energy sources
Production	2924,96	-	2666,64	507,05	1,33	-	10276,63
Imports (+)	0,24	1668,38	42,98	-	-	198,10	1866,72
Exports (-)	-673,30	-	-	-	-	-33,97	-707,27
International Marine Bunkers (-)	-	-	-	-	-	-	-
International Aviation Bunkers (-)	-	-59,83	-	-	-	-	-59,83
Stock Changes (+ draw, - build)	-4,31	3,31	1522,63	-	-	-	-1,01
TOTAL PRIMARY ENERGY SUPPLY	2247,59	1611,86	4189,27	507,05	1,33	164,13	11375,25
Transfers : Origin (-) and Destination (+)	-	-0,01	-	-	-	-	-0,01
Statistical Difference	1,23	5,87	-1742,60	-	-	32,16	41,16
TRANSFORMATION Inputs (-) and Outputs (+)	-1402,08	-	-2234,08	-507,05	-1,33	775,22	-1398,41
Electricity plants	-1003,95	-	-486,79	-507,05	-1,33	775,22	-760,22
CHP Plants	-	-	-	-	-	-	-
Heat Plants	-	-	-	-	-	-	-
Coke ovens	-398,13	-	-	-	-	-	-398,13
Blast furnaces	-	-	-	-	-	-	-
Oil Refineries	-	-	-	-	-	-	-
Coal-to-liquids plants	-	-	-	-	-	-	-
Gas-to-liquids plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-1747,29	-	-	-	-240,06
Transformation not elsewhere specified	-	-	-	-	-	-	-
Energy Sector Own Use	-	-	-	-	-	12,56	12,56
Losses	-	-	-	-	-	101,94	101,94
FINAL CONSUMPTION	844,28	1605,98	6578,23	-	-	792,68	9821,17
Industry	793,40	438,59	99,70	-	-	391,00	1722,68
Transport	8,20	751,86	48,97	-	-	-	809,03
Households	10,29	68,23	3901,66	-	-	198,66	4178,84
Commercial and public services	3,94	281,64	465,75	-	-	156,99	908,32
Agriculture, Forestry and Fishing	28,28	64,20	2062,15	-	-	42,29	2196,93
Non-specified (HH, Com. & PS., Agri.)	0,16	-	-	-	-	3,74	3,90
Non-Energy Use	-	1,46	-	-	-	-	1,46



APPENDICES

GLOSSARY

Coal/Peat

Coal/peat includes all coal primary (including hard coal and lignite) and derived fuels (including patent fuel, coke oven coke, gas coke, BKB, gas works gas, coke oven gas, blast furnace gas and other recovered gases). Peat is also included in this category.

Hard coal

Hard coal comprises anthracite coking coal and other bituminous coal.

Steam coal

Steam coal comprises anthracite, other bituminous coal and sub-bituminous coal.

Crude oil

Crude oil comprises crude oil, natural gas liquids, refinery feedstock and additives as well as other hydrocarbons.

Oil products

Oil products comprise refinery gas liquids, refinery feedstock and additives as well as other hydrocarbons.

Oil products

Oil products comprises refinery gas, ethane, LPG, aviation gasoline, motor gasoline, jet fuels, kerosene, gas/diesel oil, fuel oil, naphtha, white spirit, lubricants, bitumen, paraffin waxes, petroleum coke and other oil products.

Natural gas

Natural gas includes both “associated” and “non-associated” gas.

Nuclear

Nuclear shows the primary heat equivalent of the electricity produced by a nuclear power plant with an average thermal efficiency of 33%.

Hydro

Hydro shows the energy content of the electricity produced in hydro power plants hydro output excludes output from pumped storage plants.

Biofuels and waste

Biofuels and waste comprises solid biofuels liquid biofuels, biogases, industrial waste and municipal waste. Biofuels are defined as any plant matter used directly as fuel or converted into fuels (e.g., charcoal) or electricity and/or heat. Included here are wood, vegetal waste (including wood waste and crops used for energy production), ethanol, animal materials/ wastes and sulphite lyes. Municipal waste comprises wastes produced by residential, commercial and public services that are collected by local authorities for disposal in a central location for the production of heat and/or power.

Other

Other includes geothermal, solar, wind, tide/wave/ocean energy, electricity and heat. Unless the actual efficiency of the geothermal process is known, the quantity of geothermal energy entering electricity generation is inferred from the electricity production at geothermal plants assuming an average thermal efficiency of 10% For solar, wind and tide/Wave/ocean energy, the quantities entering electricity generation are equal to the electrical energy generated. Direct use of geothermal and solar heat is also included here. Electricity is accounted for at the same heat value as electricity in final consumption (i.e., 1GWh = 0.000086 Mtoe). Heat includes heat that is produced for sale and is accounted for in the transformation sector.

Production

Production is the production of primary energy, i.e., hard coal, lignite, peat, crude oil, NGLs, natural gas, biofuels and waste, nuclear, hydro, geothermal, solar and the heat from heat pumps that is extracted from the ambient environment production is calculated after removal of impurities (e.g., sulphur from natural gas).

Imports and exports

Imports and exports comprise amounts having crossed the national territorial boundaries of the country, whether or not customs clearance has taken place.

Oil and natural gas

Quantities of crude oil and oil products imported or exported under processing agreements (i.e., refining on account) are included. Quantities of oil in transit are excluded. Crude oil, NGL and natural gas are reported as coming from the country of origin; refinery feedstock and oil products are reported as coming from the country of last consignment. Re-exports of oil imported for processing within bonded areas are shown as exports of product from the processing country to the final destination.

Coal/peat

Imports and exports comprise the amount of fuels obtained from or supplied to other countries, whether or not there is an economic or customs union between the relevant countries. Coal in transit is not included.

Electricity

Amounts are considered as imported or exported when they have crossed the national territorial boundaries of the country.

International marine bunkers

International marine bunkers cover those quantities delivered to ships of all flags that are engaged in international navigation. The international navigation may take place at sea, on inland lakes and waterways, and in coastal waters. Consumption by ships engaged in domestic navigation is excluded. The domestic/International split is determined on the basis of port of departure and port of arrival, and not by the flag or nationality of the ship. Consumption by fishing vessels and by military forces is also excluded.

International aviation bunkers

International aviation bunkers covers deliveries of aviation fuels to aircraft for international aviation. Fuels used by airlines for their road vehicles are excluded. The domestic/International split should be determined ON THE BASIS OF DEPARTURE AND LANDING LOCATIONS AND NOT BY THE NATIONALITY OF THE AIRLINE; For many countries this incorrectly excludes fuel used by domestically owned carriers for their international departures.

Stock changes

Stock changes reflects the difference between opening stock levels on the first day of the year and closing levels on the last day of the year of stocks on national territory held by producers, importers, energy transformation industries and large consumers. A stock build is shown as a negative number, and a stock draw as a positive number.

Total primary energy supply (TPES)

Total primary energy supply (TPES) is made up of production + imports – exports – international marine bunkers – international aviation bunkers ± stock changes. For the world total, international marine bunkers and international aviation bunkers are not subtracted from TPES.

Transfers

Transfers includes both inter-product transfers, products transferred and recycled products.

Statistical differences

Statistical differences include the sum of the unexplained statistical differences for individual fuels, as they appear in the basic energy statistics. It also includes the statistical differences that arise because of the variety of conversion factors in the coal/peat and oil columns.

Electricity plants

Electricity plants refer to plants which are designed to produce electricity only. If one or more units of the plant is a CHP unit (and the inputs and outputs cannot be distinguished on a unit basis) then the whole plant is designated as a CHP plant. Both main activity producers and auto producer plants are included here.

Combined heat and power plants

Combined heat and power plants refers to plants which are designed to produce both heat and electricity. Sometimes referred to as cogeneration power stations. If possible, fuel inputs and electricity/heat outputs are on a unit basis rather than on a plan basis. However, if data are not available on a unit basis, the convention for defining a CHP plan noted above is adopted. Both main activity producers and auto producer plants are included here.

Blast furnaces

Blast furnaces contain inputs to and outputs of fuels from blast furnaces.

Gas works

Gas works is treated similarly to electricity generation, with the quantity produced appearing as a positive figure in the coal/peat column or the natural gas column after blending with natural gas, inputs as negative entries in the coal/peat and oil products columns, and conversion losses appearing in the total column.

Coke ovens

Coke ovens contain losses in transformation of coal from primary to secondary fuel and from secondary to tertiary fuels (hard coal to coke and patent fuel, lignite to BKB, etc.).

Oil refineries

Oil refineries show the use of primary energy for the manufacture of finished oil products and the corresponding output. Thus, the total reflects transformation losses. In certain cases the data in the total column are positive numbers. This can be due to either problem in the primary refinery balance or to the fact that the IEA uses regional net calorific values for oil products.

Petrochemical plants

Petrochemical plants covers backflows returned from the petrochemical industry. Note that backflows from oil products that are used for non-energy purposes (i.e white spirit and lubricants) are not included here, but in non-energy use.

Liquefaction plants

Liquefaction plants include diverse liquefaction processes, such as coal liquefaction plants and gas-to-liquid plants.

Other transformation

Other transformation covers non-specified transformation not shown elsewhere, such as the transformation of primary solid biofuels into charcoal.

Energy industry own use

Energy industry own use contains the primary and secondary energy consumed by transformation industries for heating, pumping, traction and lighting purposes (ISIC 05, 06, 19 and 35, Group 091 and Classes 0892 and 0721).

Losses

Losses include losses in energy distribution, transmission and transport.

Total final consumption (TFC)

Total final consumption (TFC) is the sum of consumption by the different end-use sectors; Backflows from the petrochemical industry are not included in final consumption.

Industry

Industry consumption is specified in the following subsectors (energy used for transport by industry is not included here but reported under transport):

- Iron and steel industry [ISIC Group 241 and Class 2431];
- Chemical and petrochemical industry [ISIC Divisions 20 and 21] excluding petrochemical feedstock;
- Non-ferrous metals basic industries [ISIC Group 242 and class 2432];
- Non-metallic minerals such as glass, ceramic, cement, etc. [ISIC Division 23];
- Transport equipment [ISIC Divisions 29 and 30];
- Machinery comprises fabricated metal product, machinery and equipment other than transport equipment [ISIC Divisions 25 to 28]
- Mining (excluding fuels) and quarrying [ISIC Divisions 07 and 08 and Group 099];
- Food and tobacco [ISIC Divisions 10 and 12];
- Paper, pulp and printing [ISIC Divisions 17 and 18];
- Wood and wood products (other than pulp and paper) [ISIC Division 16];
- Construction [ISIC Divisions 41 and 43];
- Textile and leather [ISIC Divisions 13 to 15];
- Non-specified (any manufacturing industry not included above) [ISIC Divisions 22, 31 and 32].

Transport

Transport includes all fuels used for transport [ISIC Divisions 39 to 51]. It includes transport in industry and covers domestic aviation, road, rail, pipeline transport, domestic navigation and non-specified transport. Fuel used for ocean, coastal and inland fishing (included under fishing and military consumption (included in other non-specified) are excluded from transport.

Please note that international marine and international aviation bunkers are also included here for world total.

Other

Other covers residential, commercial and public services [ISIC Divisions 33, 36-39, 45-47, 52, 53, 56, 58-66, 68-75, 77-82, 84 (excluding Class 8422) 85-88, 90-99], agriculture/forestry [ISIC Divisions 01 and 02], fishing [ISIC Division 03] and non-specified consumption.

Non-energy use

Non-energy use covers those fuels that are used as raw materials in the different sectors and are not consumed as a fuel or transformed into another fuel. Non-energy use also includes petrochemical feedstock. Non-energy use is shown separately in final consumption under the heading non-energy use.



Conversion Factors for Energy

	TJ	Gcal	Mtoe	MBtu	GWh
TJ	1	238.8	2.388×10^{-5}	947.8	0.2778
Gcal	4.1868×10^{-3}	1	10^{-7}	3.968	1.163×10^{-3}
Mtoe	4.1868×10^4	10^7	1	3.968×10^7	11630
MBtu	1.0551×10^{-3}	0.252	2.52×10^{-8}	1	2.931×10^{-4}
GWh	3.6	860	8.6×10^{-5}	3412	1

Conversion Factors for Mass

	kg	t	lt	st	lb
kilogram (kg)	1	0.001	9.84×10^{-4}	1.102×10^{-3}	2.2046
ton (t)	1 000	1	0.984	1.1023	2 204.6
long ton (lt)	1 060	1.016	1	1.120	2 240.0
short ton (st)	907.2	0.9072	0.893	1	2 000.0 ⁴
pound (lb)	0454	4.54×10^{-4}	4.46×10^{-4}	5.0×10^{-4}	1

Conversion Factors for Volume

	gal U.S.	gal U.K.	bbl	Ft ³	l	m ³
U.S. gallon (gal)	1	0.8327	0.02381	0.1337	3.785	0.0038
U.K. gallon (gal)	1.201	1	0.02859	0.1605	4.5466	0.0045
barrel (bbl)	42.0	34.97	1	5.615	159.0	0.159
cubic foot (ft3)	7.48	6.229	0.1781	1	28.3	0.0283
litre(l)	0.2642	0.220	0.0063	0.0353	1	0.001
cubic metre (m3)	264.2	220.0	6.289	35.3147	1 000	1



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