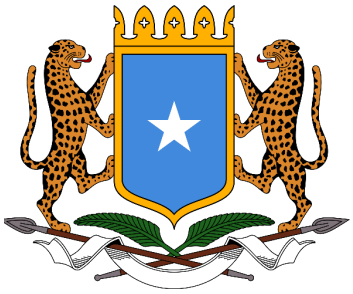
SOMALIA NATIONAL BUREAU OF STATISTICS
Federal Republic of Somalia

SDG7- AFFORDABLE & CLEAN ENERGY INDICATORS REPORT



Somalia National Bureau of Statistics

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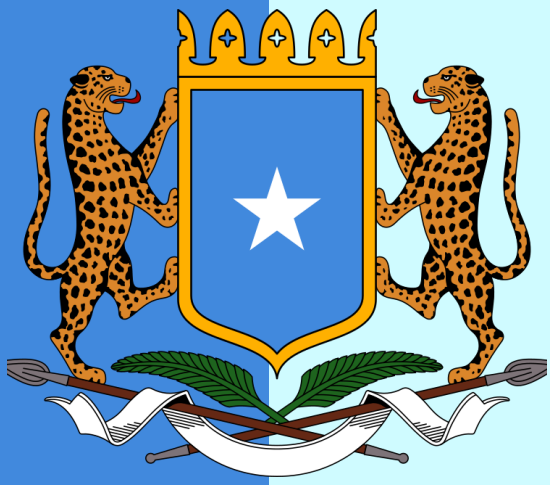

FOREWORD

It gives me great pleasure to present Somalia's first-ever SDG 7 Energy Indicators Report, a milestone achievement for the national statistical system and a significant step towards strengthening evidence-based policymaking in the energy sector. This report offers the most comprehensive and consolidated assessment to date of Somalia's progress towards achieving Affordable and Clean Energy for All, drawing on data from national institutions and internationally recognised sources, while clearly highlighting both progress made and critical data gaps that remain.

Reliable, transparent, and timely data are fundamental to effective policy formulation, planning, and monitoring. However, Somalia's energy sector has historically faced challenges in generating systematic, disaggregated, and comparable data, particularly in relation to electricity access, clean cooking, renewable energy development, and energy efficiency. The findings of this report underscore the urgent need to strengthen administrative data systems, enhance institutional coordination, and sustain long-term investment in national statistical capacity. As Somalia prepares for the 2026 Voluntary National Review, this work is especially timely, ensuring the country can credibly measure progress, identify priority interventions, and align national strategies with global sustainable development commitments.

I extend my sincere appreciation to the Ministry of Energy and Water Resources and the National Electricity Authority for their active engagement throughout the consultation and data sharing processes. Their collaboration reflects a growing recognition across government that robust administrative data is central to sound governance, effective service delivery, and accountable sector planning. I also acknowledge the contribution of World Bank analytical reports, which provided important foundational inputs to this publication and further highlight the need for Somalia to build a nationally owned and sustainable energy data ecosystem.

This report was prepared by the Directorate of Policy, Planning and Coordination Services team. The Directorate's leadership, technical expertise, and analytical rigour were instrumental in delivering a high quality national assessment within a challenging context. Their collective effort reflects the professionalism, dedication, and institutional strength that continue to underpin SNBS's role as the custodian of official statistics in Somalia.

As Somalia advances its journey towards sustainable energy access and improved living standards, SNBS reaffirms its commitment to strengthening national data systems, deepening collaboration with sector institutions, and promoting a culture of high quality, transparent, and accessible statistics. It is my hope that this report will serve as a valuable reference for policymakers, development partners, researchers, and all stakeholders committed to building a more resilient, inclusive, and energy-secure Somalia.

Dr. Abdisalam Abdirahman Mohamed
Director General
Somalia National Bureau of Statistics

ACKNOWLEDGEMENT

The Somalia National Bureau of Statistics (SNBS) extends its sincere appreciation to the Ministry of Energy and Water Resources and the National Electricity Authority for their invaluable engagement throughout the consultations and data-sharing processes that informed this report. Their collaboration was central to enabling SNBS to consolidate existing evidence and provide a coherent assessment of Somalia's progress towards SDG 7: Affordable and Clean Energy.

While these efforts mark an important milestone, SNBS also recognizes that additional investment is required to strengthen the systematic production, management, and routine reporting of administrative data across the energy sector. Stronger administrative data systems remain essential for credible tracking of SDG 7 indicators and for informing national policy and planning. In this context, SNBS also acknowledges the significant contribution of World Bank Reports, which provided the bulk of the available data used in this report, highlighting both the value of international sources and the need to expand national data generation capacities.

SNBS conveys its sincere appreciation to Dr. Abdisalam Mohamed, Director-General, for his prioritization, visionary leadership and strategic guidance, which continue to shape the national statistical system and elevate the Bureau's work. SNBS also extends heartfelt thanks to Abdirahman Omar Dahir, Deputy Director-General, for his steady support and constructive oversight throughout the preparation of this report. Both the DG and Deputy DG's commitment to strengthening SDG data availability provided an important foundation for the successful completion of this assessment.

SNBS extends its deepest appreciation to the core drafting team whose dedication and technical expertise made this report possible. Fadumo Mumin, Director of Policy, Planning and Coordination Services; Zakariye Hashi, Head of the Governance Statistics Section; Sakariye Ahmed, Head of the NSDS, M&E Section; and Abdirazak Dahir, Statistician, each played a pivotal role in the compilation, analysis, and refinement of the data and narrative presented in this report. Their collective commitment, long working hours, and rigorous attention to detail were instrumental in ensuring the quality and completeness of this first-ever SDG 7 assessment for Somalia.

Finally, SNBS gratefully acknowledges the support provided by UNDP and the Swiss Agency for Development and Cooperation (SDC) towards Somalia's SDG data and reporting agenda. Their timely investment, and crucially, their recognition and prioritization of strengthened SDG monitoring as a national development imperative, has directly contributed to increasing SDG data coverage in Somalia by enabling

SNBS and partner institutions to undertake consultations, strengthen coordination with data-producing Ministries, and consolidate available official evidence into usable SDG indicators. This support has expanded the national evidence base for policy planning and resource allocation, strengthened transparency and results-based accountability, and reinforced long-term efforts to institutionalize SDG data reporting across sectors for credible SDG tracking.

This report stands as a testament to the collective contributions of national institutions, dedicated professionals, and development partners working together to expand Somalia's energy data landscape and advance sustainable energy for all.

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LIST OF ABBREVIATIONS

GDP	Gross Domestic Product
GHG	Greenhouse Gas
GWh	Gigawatt-hour
IDA	International Development Association
IEA	International Energy Agency
LPG	Liquefied Petroleum Gas
MJ	Megajoule
MoEWR	Ministry of Energy and Water Resources
MW	Megawatt
MWh	Megawatt-hour
NEA	National Electricity Authority
PIU	Project Implementation Unit
SDG	Sustainable Development Goal
SESRP	Somali Electricity Sector Recovery Project
SNBS	Somalia National Bureau of Statistics
TFEC	Total Final Energy Consumption
UN	United Nations
UNDP	United Nations Development Programme
UNSD	United Nations Statistics Division

1.0. INTRODUCTION

1.1. BACKGROUND

The Sustainable Development Goal 7 ensures access to affordable, reliable, sustainable and modern energy for all and lies at the heart of the 2030 Agenda for Sustainable development, adopted by the United Nations General Assembly in 2025. Ensuring universal access to affordable electricity by 2030 means investing in clean energy sources such as solar, wind and thermal. Expanding infrastructure and upgrading technology to provide clean energy in all developing countries is a crucial goal that can both encourage growth and help the environment[1] . The goal also recognizes energy as a fundamental driver of economic growth, social inclusion and environmental sustainability.

Globally, energy is considered an enabling factor for sustainable development and human wellbeing[2] . For many years' people used fossil fuels as a primary source of energy, such as gas and coal. However, releasing fossil fuels in the atmosphere could potentially produces large amounts of GHG emissions and could result harmful impact on people and the entire ecosystem[3] . Access to modern energy services drives industrialization, supports healthcare and education; renewable energy is energy from sources that are naturally replenishing but flow-limited. They are virtually inexhaustible, but they are limited by the availability of the nature resources. The United Nations Development Program notes that energy access is not merely a technical challenge but a development imperative that cuts across multiple sectors[4].

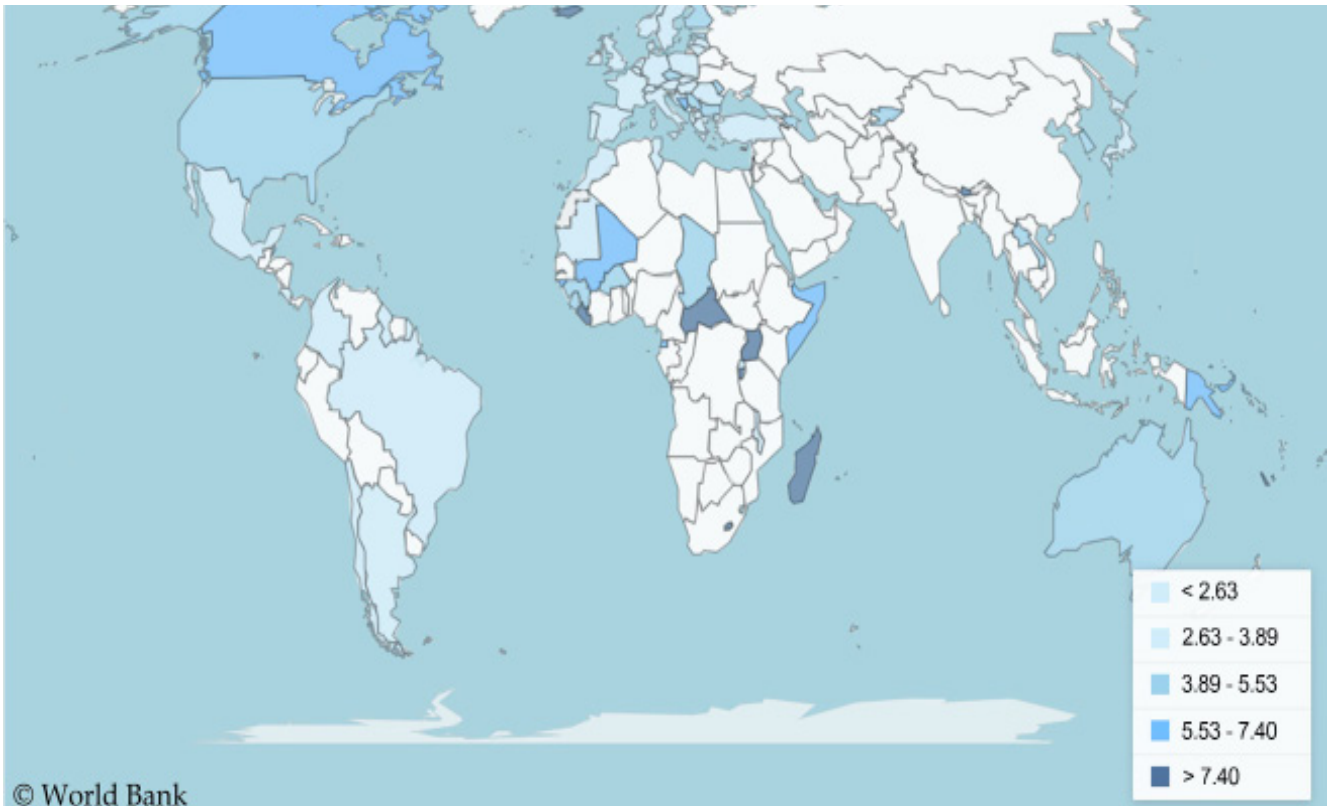
For this reason, tracking progress toward SDG 7 requires accurate, timely and harmonized data systems, a challenge that many developing and fragile nations still endure.

[1] Ensure access to affordable, reliable, sustainable and modern energy. United Nations, 2023, available at: https://www.un.org/sustainabledevelopment/energy/

[2] Energy Consumption and Human Well-Being: A Systematic Review. Gereon tho Pesch et al, 2023, available at: https://www.mdpi.com/1996-1073/16/18/6494

[3] Causes and Effects of Climate Change. United Nations, 2022, available at: https://www.un.org/uk/node/169306

[4] Energy Access for the Poor: Energizing the Millennium Development Goals. United Nations Development Program, 2025, available at: https://www.undp.org/sites/g/files/zskgke326/files/publications/2593.EnergyAccess_Booklet_Revision02.pdf



In 2023, 92 percent of the world's population had access to electricity, despite these achievements 675 million people remain without electricity[5] . Sub-Saharan Africa, where most Least Developed Countries are located, remained the largest access-deficit region. There, 50 per cent of the population were without access to electricity[6] . There are also people that are hard to reach with electricity and clean cooking solutions and these include those who live in remote areas or are internally displaced people, or those who live in urban slums or marginalized communities.

The world faces additional challenges such as inconsistent data availability, weak institutional capacity for energy statistics and insufficient financial flows to clean energy transitions.

[5]The Sustainable Development Goals Report. UNStats, 2025, available at: https://unstats.un.org/sdgs/report/2025/The-Sustainable-Development-Goals-Report-2025.pdf

[6] Policy Brief: Ensuring Universal Energy Access and Advancing Just, Inclusive and Equitable Energy Transitions. United Nations Department of Economic and Social Affairs, 2023, available at: https://sdgs.un.org/sites/default/files/2023-07/2023%20Policy%20Briefs%20in%20Support%20of%20the%20High-Level%20Political%20

The UN Secretary-General's 2023 SDG Progress Report emphasizes that without a tripling of renewable energy capacity and a doubling of annual energy efficiency gains by 2030, the world will fall short of meeting both SDG 7 and broader Paris Agreement objectives[7] . In order to achieve a universal electricity access by 2030, the global electrification rates must increase to about 1.2 percent per annum as per SDG. However, based on current trajectories, an estimated 645 million people are still expected to live without electricity by the projected year. Overcoming this challenge calls for innovative strategies, stronger political will and greater financial investment to expand the deployment of decentralized renewable energy systems and sustainable business models. Among these, off-grid solar technologies offer the most affordable and practical solution, with the potential to supply power to roughly 389 million people.

Somalia's energy landscape reflects both its post-conflict reconstruction realities and its growing ambition for sustainable development. Decades of instability severely disrupted the country's energy infrastructure and left large portions of the population without access to clean and reliable energy. However, recent years have witnessed notable improvements driven by government reforms, donor-supported investments and private sector innovation. The Ministry of Energy and Water Resources and the National Electricity Authority are leading efforts to establish a coherent national energy policy framework, promote renewable energy development and expand electricity access across Federal Member States. The MoEWR has the mandate to oversee the Somalia Energy sector, set policies, and strategic frameworks, approve tariffs for the electricity services and build the technical capacity of electricity service providers in Somalia in consultation with stakeholders through open and transparent processes[8] .

[7]Progress towards the Sustainable Development Goals: towards a rescue plan for people and planet. United Nations, 2023, available at: https://unstats.un.org/sdgs/files/report/2023/secretary-general-sdg-report-2023--EN.pdf
[8]Ministry of Energy and Water Resources: Ministry's Mandate, 2014, available at: https://moewr.gov.so/the-ministry/

The Ministry hosts the Project Implementation Unit of the Somali Electricity Sector Recovery Project financed by the World Bank International Development Association to the tune of US$150 million. The SESRP aim is to increase access to electricity services and to re-establish the Electricity Supply Industry in the Project Areas. The project concentrates four themes which are; infrastructure development, renewable energy generation, electricity supply to public institutions and sector capacity development including the enhancing both the public and private capacities to manage and operate the sector[9]. Electricity in urban areas has expanded significantly through private mini-grids and hybrid solar-diesel systems. In rural areas, progress has been made through the introduction of off-grid solar home systems supported by development partners and private enterprises. Initiatives such as the Accelerating Sustainable and Clean Energy Access Transformation project, implemented with the support of World Bank, have begun to catalyze clean energy investments and improve institutional capacity for energy management. Similarly, the Africa Minigrids program have supported the expansion of solar mini-grids, helping to reduce reliance on expensive diesel generation power in rural areas[10] .

Despite these encouraging developments, Somalia's energy sector continues to face multiple structural challenges. Electricity access remains among the lowest in the world, particularly in rural and nomadic communities, where electrification rates are very poor. The clean cooking challenge is even more severe where the majority of households rely heavily on charcoal and firewood, contributing to deforestation, indoor air pollution and adverse health impacts. In addition, administrative data remain fragmented across ministries and stakeholders with the absence of a unified national repository limits effective monitoring and planning.

To bridge these gaps, Somalia must continue strengthening institutional coordination between the MoEWR, NEA and SNBS to ensure systematic collection, verification and dissemination of energy data. Building a centralized Energy management and Information Management System would enable harmonization of energy statistics across stakeholders. Expanding renewable energy financing through public-private partnerships, concessional loans and blended finance mechanisms will also be essential to reduce upfront investment risks. Furthermore, promoting clean cooking initiatives through market-based approaches, subsides awareness campaigns could help shift households from biomass to cleaner alternatives such as LPG and solar cook-stoves. These measures emphasize decentralized renewable systems, data strengthening and inclusive financing as key strategies for achieving universal access.

[9] Somali Electricity Sector Recovery Project Report. Ministry of Energy and Water Resources, 2021, available at: https://moewr.gov.so/wp-content/uploads/2020/07/Stakeholder-Engagement-Plan-SEP-Somali-Electricity-Sector-Recovery-Project-P173088.pdf

[10] Solar Minigrids Program. United Nations Development Program, 2023, available at: https://www.undp.org/somalia/press-releases/somalia-launches-ambitious-solar-minigrids-program-increase-energy-access

1.2. RATIONALE

Despite significant national and international efforts to improve Somalia's energy sector, the country continues to face substantial challenges in generating systematic, comprehensive and up-to-date data on its performance against the SDG 7 targets. Current data on access to modern energy services, such as electricity and clean cooking fuels, remain fragmented and often lack disaggregation by region, gender and socio-economic status, particularly in rural and nomadic communities. Similarly, the share of renewable energy in the national energy mix is not consistently tracked or analyzed, while indicators on energy intensity and efficiency are underreported and insufficiently integrated into the national monitoring and evaluation framework. Weak institutional coordination and limited data-sharing among key energy sector stakeholders have further contributed to fragmented and inconsistent datasets, impeding the establishment of a robust evidence-based decisions for policy and program interventions.

This situation has created a critical gap between the ambition embodied in SDG 7 and Somalia's capacity to monitor, analyze and act upon relevant energy indicators. Without reliable baseline data and a functional tracking mechanism, policy interventions risk being poorly targeted and national progress cannot be credibly demonstrated at either the regional or global level. This report therefore seeks to bridge that gap by documenting the current status of SDG 7 indicators, assessing progress made to date and identifying key areas where strengthened data systems, institutional collaboration and policy attention are needed to accelerate Somalia's transition toward sustainable energy for all.

1.3.PURPOSE OF THE REPORT

The purpose of this report is to provide a convincing and evidence-based assessment of the Somalia's progress toward achieving the SDG. The report examines four key dimensions of SDG 7: energy access, renewable energy development, energy efficiency and the establishment of modern energy infrastructure. By consolidating available data and analyses, the report seeks to present a comprehensive overview of Somalia's current energy landscape and its alignment with global and national sustainable development objectives.

More specifically, the report maps the current status and trends of SDG 7 indicators in Somalia, highlighting progress where data allow and identify critical gaps that limit effective monitoring and evaluation of the Goal. It also examines institutional and policy challenges that hinder coordinated progress in the energy sector. The report will also be a significant reference for government institutions in the energy sector, international organizations, development partners, researchers, academia and all other relevant stakeholders; thereby contributing to data-driven decision-making and accountability within the energy sector.

1.4. METHODOLOGY

This section outlines the methodological framework adopted for the preparation of the SDG Energy Indicators Report. The approach is designed to ensure that all findings are reliable, transparent, replicable and consistent with international best practices for monitoring the energy sector. The analytical process comprises four core components: data mapping, data cleaning and harmonization, application of analytical and trend analysis techniques, and reporting as well as disaggregation and interpretation of findings. Together, these elements form an integrated methodological system that ensures analytical rigor and alignment with reporting standards.

Data used in this Report were primarily obtained from official Somali government institutions and sectoral agencies, complemented by secondary sources. Key contributors include the Ministry of Energy and Water Resources and the World Bank. Data collection involved formal requests to institutions, inter-agency coordination workshops aimed at enhancing data collaboration and leveraging official statistical reports from other government institutions on the energy sector.

To ensure data quality, consistency and comparability; a structured process of data verification, cleaning and harmonization was undertaken. Data received from institutions were cross-checked against published reports and international datasets available to identify discrepancies or anomalies. Definitions were also reviewed to ensure alignment with SDG 7; covering electricity access, clean cooking, renewable energy share and energy intensity. Where possible, data were disaggregated by federal member states, urban and rural residences or socio economic status to enhance analytical depth. Each indicator was accompanied by detailed tables, charts, and if available, time series to measure its progress across the country. This process ensures transparency, reproducibility and adherence to the principles of official statistics.

On the other hand, the Report employs quantitative analytical technique suitable to the nature of available data. These analyses include descriptive statistics, trend assessments and comparative benchmarking on time series related stats. Specifically, the Report calculates indicator levels and annual percentage changes to assess whether or not Somalia is on track to achieve the 2030 agenda of clean and affordable energy for all. Where interpretation allows, Somalia's performance is compared with neighboring countries for contextual benchmarking. In addition, deeper analytical exercises explore the underlying drivers and barriers influencing energy access and sustainability. These include correlation analyses identifying disparities between current performance and desired targets.

1.5. SCOPE OF THE REPORT

The scope of this report covers Somalia's progress toward achieving SDG 7, particularly access to electricity, clean cooking fuels and technologies, the share of the renewable energy in total energy consumption and progressed made in energy efficiency. The report encompasses all Federal Member States, with data disaggregated by region where available at the time. Temporally, the report uses administrative data obtained from key government institutions in the energy sector, it also assesses recent trends and developments within the past several years, providing an outlook toward the 2030 Agenda of affordable and clean energy for all. In doing so, the report aims to present a comprehensive overview of Somalia's current energy landscape, benchmark its progress against regional and global standards, identify existing gaps and propose actionable recommendations to strengthen energy data systems, promote renewable energy investments and enhance progress toward universal access to sustainable and modern energy services in the country.

1.6. ETHICAL CONSIDERATION

The report observed strict ethical standards to ensure the responsible handling and use of data. The confidentiality of information contained in the datasets was maintained at all stages of analysis and reporting, with any sensitive or identifying details anonymized to protect the integrity of institutions and individuals involved. Finally, formal permissions were obtained from relevant data providing institutions to ensure their collaboration on the report.

2.0. DATA ANALYSIS

2.1. INTRODUCTION

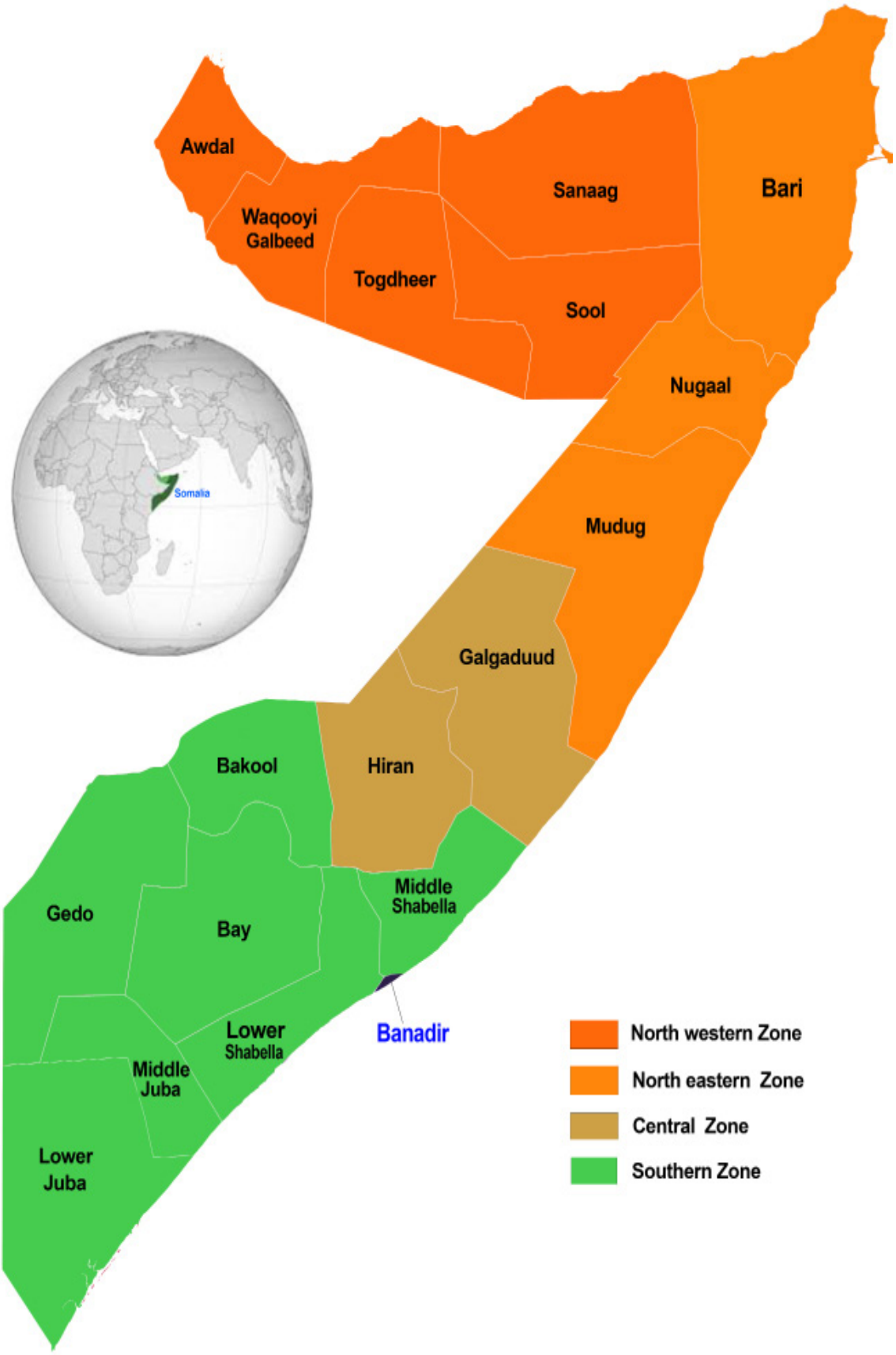
This Chapter presents a comprehensive assessment of Somalia's energy landscape using multiple datasets that capture electricity demand, access levels, renewable-energy capacity, clean-cooking trends, financial flows and energy efficiency indicators. The analysis integrates sectoral, regional and temporal dimensions to reveal how electricity consumption patterns, investment behavior and access disparities have evolved over recent years. By examining both historical data and future projections, this chapter highlights the structural characteristics of Somalia's fragmented energy system, including its dependence on diesel-based generation, dominance of traditional biomass in household energy use and uneven electrification across communities and regions.

The evidence collectively illustrates how growth, inequality and vulnerability intersect to shape the country's energy trajectory. While demand for electricity is rising and renewable-energy capacity is gradually expanding, progress remains fragmented by weak infrastructure, limited financing, heavy reliance on private mini-grids and persistent rural-urban disparity in access. Through data-driven approach, this chapter identifies the key bottlenecks and emerging opportunities that must inform Somalia's pursuit of SDG7, emphasizing the need for coordinated policies, targeted investments and stronger institutional frameworks to drive an inclusive, modern and resilient energy transition.

SDG 7 INDICATORS

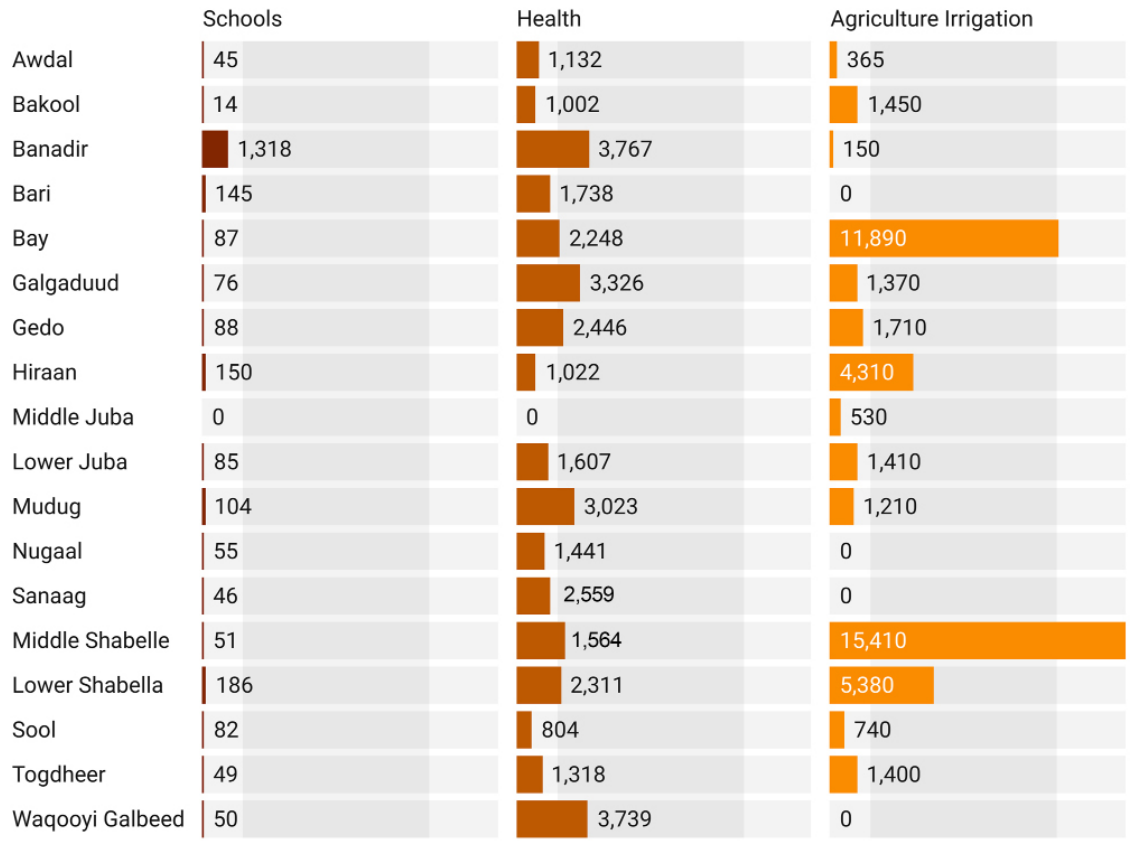
Based on the data analysis of this chapter, the following SDG 7 indicators are directly addressed.

- 7.A.1 International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems - (see figure 1.6).
- 7.B.1 Installed renewable energy-generating capacity in developing and developed countries (in watts per capita) - (see figure 1.5).
- 7.1.1 Proportion of population with access to electricity - (see figure 1.3).
- 7.2.1 Renewable energy share in the total final energy consumption (see figure 1.4).
- 7.3.1 Energy intensity measured in terms of primary energy and GDP (see figure 1.7).
- 7.1.2 Proportion of population with primary reliance on clean fuels and technology - (see figure 1.8).



Yearly electricity demand (MWh/year) for schools, health, and agriculture

Figure 1.1: Yearly electricity demand (MWh/year) for schools, health, and agriculture



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The dataset shows Somalia's estimated annual electricity demand in (MWh/year) by region for three critical sectors; schools, health facilities and agricultural irrigation. The total national demand is roughly 86,970 MWh/year, with agriculture consuming the largest share; ≈ 54 percent, followed by health facilities with 43 percent and schools with only 3 percent. The distribution is highly uneven with Banadir region alone accounting for more than half of all school electricity demand, while other regions such as Middle Jubba and Saahil record negligible or zero energy consumption for schools. On the other hand, health sector energy demand is more geographically balanced, with relatively high values in Galgadud, Mudug and Banadir regions. Agriculture sector, in contrast, shows extreme disparities; Bay and Lower Shabelle dominate the trend due to irrigated farming along the Shabelle and Jubba river basins, whereas most northern and coastal regions register the lowest agricultural electricity consumption, revealing either rain-fed systems or complete absence or irrigation infrastructure.

The barriers behind this pattern are multifaceted. First, energy access inequality persists since only urban or semi-urban centers have reliable grid or diesel-based supply, while rural and nomadic communities rely heavily on off-grid energy sources. Second, institutional fragility and investment gaps have constrained expansion of energy infrastructure for social services. Schools and health facilities lack mini-grids or solar systems, leading to under-utilization or reliance on costly generators. Third, geographic and security constraints, particularly in southern and central regions where these two deter private-sector investment and limit donor project coverage as well. Fourth, data gaps as reflected by zeros or missing values, underscoring limited monitoring of electricity consumption, further complicating evidence-based energy planning and policymaking. Given Somalia's context of conflict recovery, climate change and rapid urbanization, these three sectors should be top priorities. Electrifying health facilities directly improves community resilience against maternal issues and other emergency responses, while powering irrigation underpins food security and climate adaptation. Short-term interventions should focus on solar hybrid systems for health sectors, solar pumps and micro-grids for irrigation clusters, and school electrification pilots in regions with zero demand to bridge the gap.

Figure 1.2: Estimated Energy for selected years (GWh)-Somalia

	2017	2022	Growth 2017 - 22	2027	Growth 2022 - 27	2037	Growth 2027 - 37
Northwestern Sub-Grid	333	496	8.3%	790	9.8%	1,270	4.9%
(Galmudug) Central Sub-grid	216	401	13.2%	740	13%	1,490	7.2%
(Hirshabelle) Central Sub-grid	52	88	11.0%	170	14.1%	280	5.1%
Central Sub-grid	18	27	8.4%	50	13.1%	90	6.1%
Southern Sub-grid	83	138	10.6%	260	13.5%	460	5.9%
Southwestern Sub-grid	44	68	8.9%	120	12%	220	6.2%
Northeastern Sub-grid	134	224	10.8%	330	8.1%	530	4.9%

© Ministry of Energy and Water Resources

The table provides a twenty-year outlook for Somalia's estimated electricity demand by regional power zones for 2017, 2022, 2027, 2037 respectively. It tells a story of gradual recovery, uneven regional growth and emerging structural imbalances within Somalia's energy landscape. Nationally, demand rises from 881 GWH in 2017 to 4,340 GWh by 2037, a nearly five-fold increase in two decades. The fastest expansion occurs during the reconstruction decade of 2017-2027 when annual growth exceeds 10 percent reflecting post-conflict rebuilding, new business activities and donor-driven electrification efforts. growth slows to about 6 percent beyond 2027, signaling a maturing market, possible infrastructure bottlenecks or limits in generation and grid expansion.

Regionally, the Northwestern Sub-grid remains the largest and most stable contributor, growing from 333 GWh in 2017 to 1,270 GWh by 2037; roughly one-third of total national demand. Its steady but declining growth rates suggest a relatively established grid with slower marginal gains, consistent with Hargeisa's semi-formal power sector. The Central Sub-grid show rapid early growth; over 13 percent annually up to 2027, potentially driven by reconstruction and urban expansion in Dhusamareb, Hobyo and Beledwayne. However, their smaller bases mean limited overall contribution. Southern and Southwestern sub-grids are growth frontiers, more than tripling demand by 2037 as population returns and agriculture, services and small industries revive. The Northeastern Sub-grid expands robustly, from 134 GWh in 2017 to 530 GWh in 2037, potentially driven by population growth and port development. Notably, Eastern and Indian Ocean sub-grids remain nonexistent; indicating the absence of integrated coastal electrification despite large blue-economy potential.

The message is that Somalia's energy growth is geographically fragmented and highly dependent on security, private mini-grids and donor-funded programs. The Central and Southern systems exhibit high percentage growth but from very low baselines, indicating unmet demand rather than actual consumption. The Northwestern system shows maturity but risks stagnation without integration to a national grid. The country faces barriers including lack of interconnection and harmonized regulation, leaving sub-grid to operate in isolation; generation mix imbalance, with overreliance on diesel and slow uptake of renewables; and institutional fragility limiting national energy planning. In essence, the data portrays a country on the cusp of an energy transition; dynamic in growth yet still fragile and unequal in access; requiring coordinated investment and regulatory reform to sustain the momentum beyond 2030.

Figure 1.3: Proportion of population with access to electricity (2020-2023)

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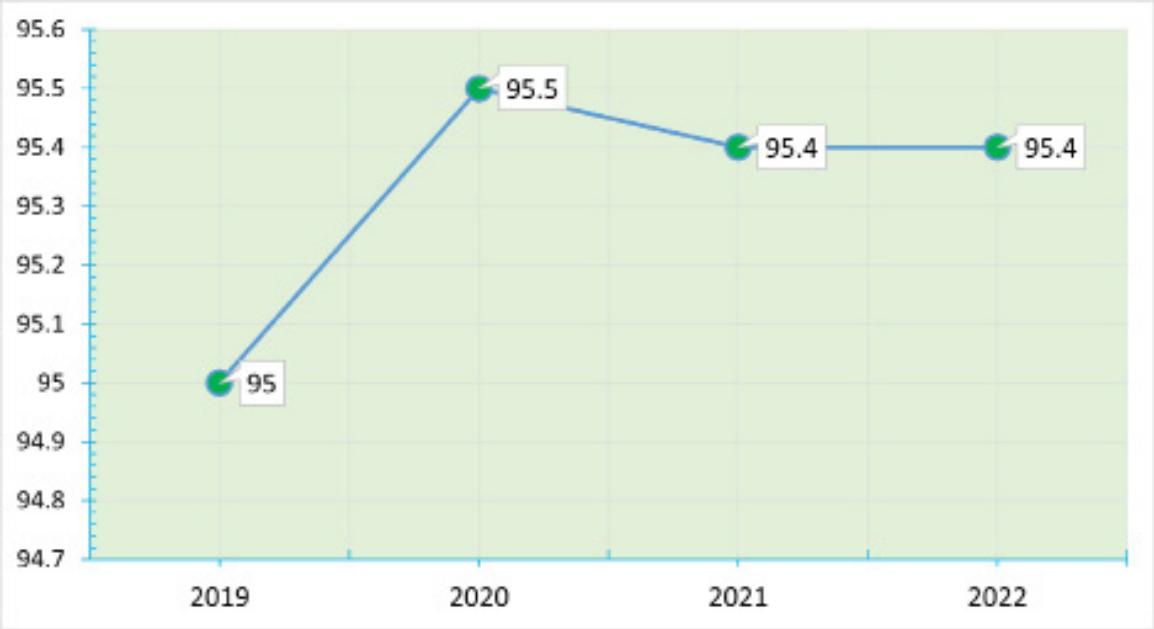
The chart illustrates the proportion with access to electricity from 2020 to 2023, disaggregated by rural and urban communities. Overall access remained relatively stagnant, moving marginally from 49.9 percent in 2020 to 50.3 percent in 2023, reflecting slow progress in energy inclusion. Urban areas consistently enjoyed much higher access; rising from 70.3 percent to 79 percent suggesting focused electrification and infrastructure development in cities. However, rural access declined from 32.3 percent in 2020 to 23.9 percent in 2023, signaling widening inequality and possibly deteriorating infrastructure, affordability challenges, or slower rural grid expansion. The stable total figures indicate that gains in urban areas are offset by regression or stagnation in rural communities.

Somalia's energy landscape remains constrained by multiple barriers; these include absence of a unified national grid, extremely high electricity costs; among the highest in the region, fragmented private supply and logistical challenge of serving dispersed rural and nomadic populations. Political instability and weak regulation further deter large-scale investment, leaving the energy market dominated by small, diesel-based private operators with limited reach. To reverse the decline and achieve equitable growth, Somalia must prioritize decentralized renewable solutions such as solar and wind mini-grids, supported by clear regulatory frameworks and affordable financing models. Strengthening public-private partnerships, incentivizing rural electrification through subsidies or micro-finance, and ensuring reliable, affordable supply will be critical. Without targeted rural interventions and stronger governance, Somalia risks entrenching an urban-rural energy divide that hampers inclusive development.

Figure 1.4: Renewable energy share in Total Final Energy Consumption (%)



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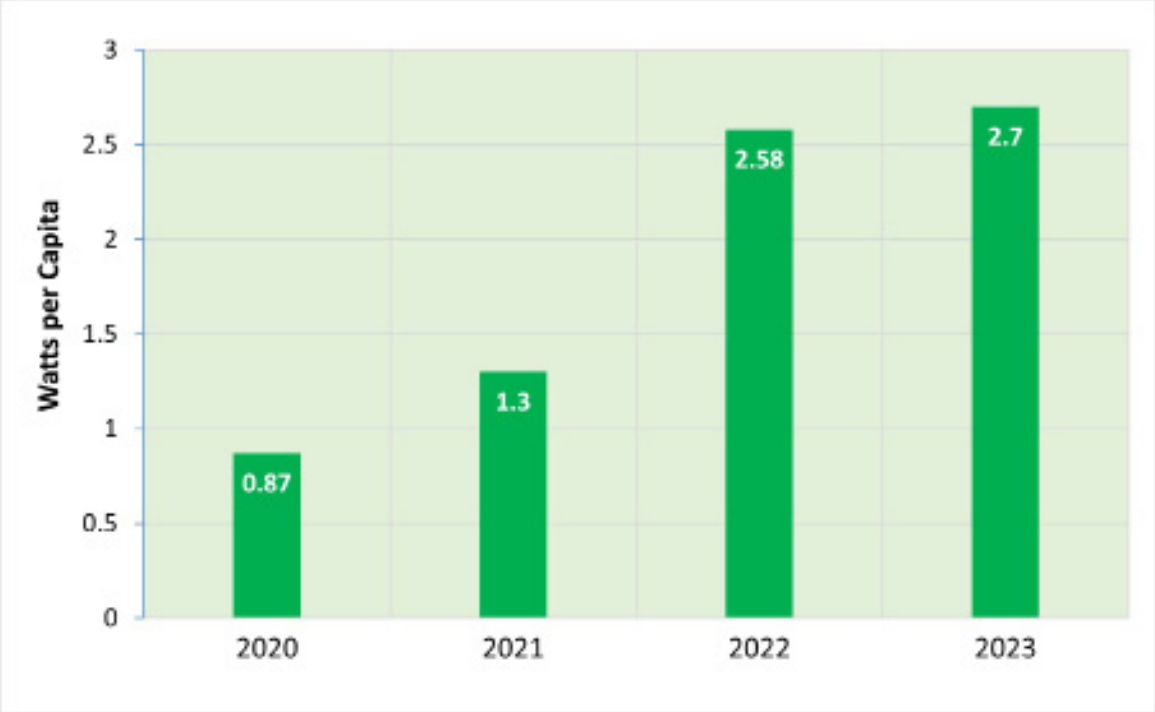
This chart shows the renewable energy share in total final energy consumption from 2019 to 2022, and it depicts a very high but relatively stagnant share over the period. The share increased slightly from 95 percent in 2019 to 95.5 percent in 2020, before stabilizing at around 95.4 percent through 2021 and 2022, at first glance, such a high percentage might suggest impressive renewable energy adoption, but in Somalia's context, it actually reflects the dominance of traditional biomass; mainly from firewood, charcoal and animal waste rather than modern renewable energy sources. This means that while most of the country's energy technically comes from renewable sources, it is largely non-modern and inefficient, associated with deforestation, health risks and low energy productivity.

When the data shows a share of around 95 percent in TFEC, it doesn't mean the country's powered by modern renewable sources like solar or wind; instead, it means that the vast majority of the energy Somalis use mainly for cooking, heating and some local lighting, comes from traditional biomass, such as firewood, charcoal and so on. technically, these are counted as renewables because they come from organic material that can regrow or regenerate over time, but in practice they are unsustainable, inefficient and environmentally damaging. In Somalia's case, most households, particularly in rural and nomadic communities, rely almost entirely on these traditional fuels. There is very limited access to electricity from modern renewables, even though the country has vast potential in renewable energy.

The slight increase in 2020 could be attributed to ongoing rural reliance on biomass and reduced fossil fuel import during the COVID19 period, but the subsequent stagnation shows limited structural progress toward modern energy transitions. Somalia's energy mix remains heavily dependent on biomass for cooking and heating; and diesel for electrification and transportation, with only small contributions from modern renewables. The key barriers include poor investment in renewable infrastructure, absence of strong and effective regulatory incentives and low public awareness on modern renewables. To shift these trends, Somalia needs to modernize its energy mix; expanding solar and wind generation, promoting clean cooking technologies and reducing charcoal dependence. Targeted policies, donor-backed more renewable projects and community-led clean energy initiatives could also be essential for modern renewable energy transition, ensuring environmental sustainability and improved quality of life.

Figure 1.5: Installed renewable energy - generating capacity Per Capita



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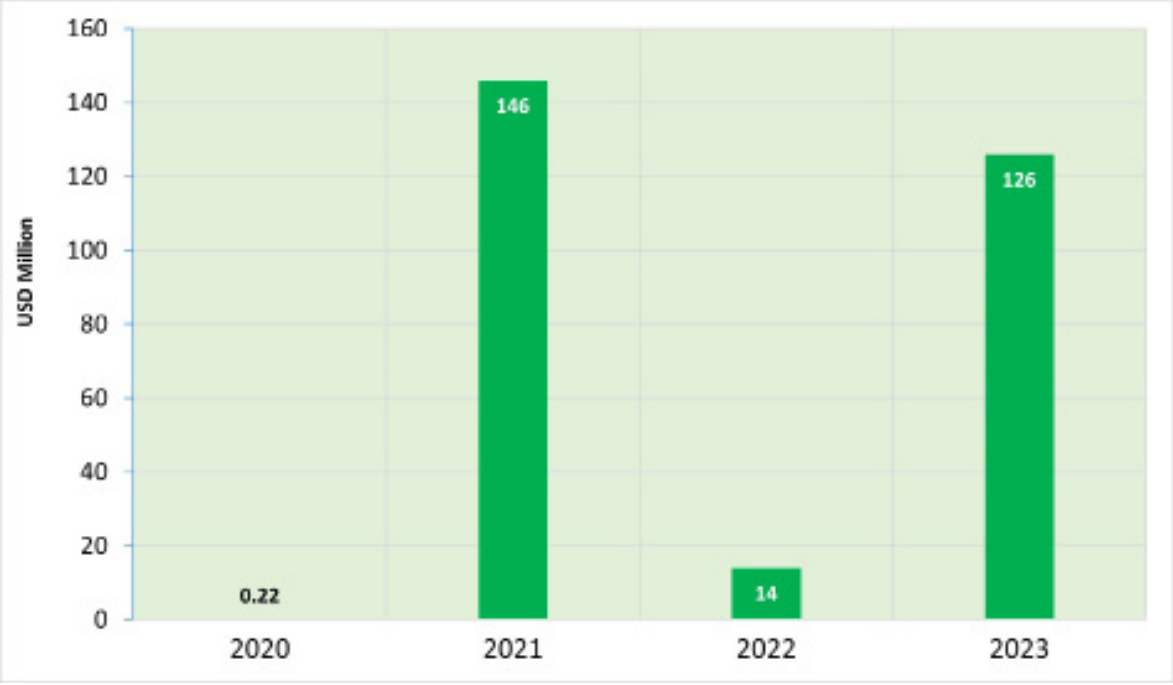
Somalia's installed renewable-energy-generating capacity per capita shows a strong upward trajectory, rising from about 0.87 W in 2020 to 2.7 W in 2023. This indicate sustained annual increases; roughly 50% growth from 2020 to 2021, over 90 percent from 2021 to 2022 and a more modest but still positive rise of around 5% in 2023. The multi-year trend reflects a compound growth rate of over 40% annually across the 2020–2023 period, demonstrating solid momentum despite the country's historically low baseline.

Trend assessment suggests Somalia is progressing but remains far below regional averages, where many East African states achieve tens of watts per capita. Even with rapid percentage gains, the absolute values highlight a sizeable gap that must be bridged to reach SDG 7 targets by 2030. Without expanded investment in utility-scale and distributed renewable systems, the current pace though encouraging may not be fast enough to meet universal clean-energy goals.

There is a growing mismatch between Somalia's rising renewable-energy capacity and the much larger increase required to meet national and global targets. Gains are occurring, but they are not yet translating into widespread or equitable access. The underlying drivers such as population growth, urban-rural disparities and inconsistent investment patterns continue to dilute progress. To get on track for the 2030 agenda, Somalia will need strengthened governance, targeted subsidies, enhanced private-sector incentives, and regionally aligned energy policies that accelerate deployment and reduce the gap with comparator countries.

Figure 1.6: International financial flows supporting clean energy



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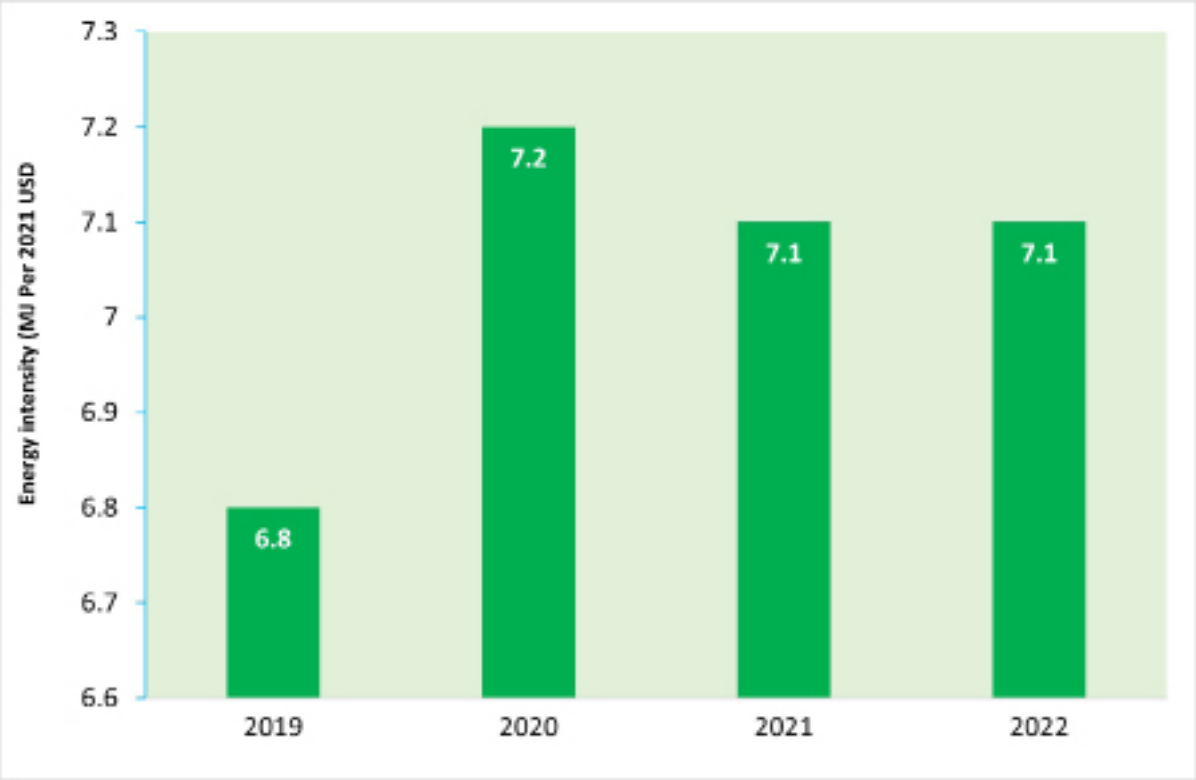
Somalia's international financial flows supporting clean energy from 2020 to 2023 reveal a pattern of extreme volatility that suggests inconsistent external investment patterns. In 2020, inflows were exceptionally low at $222,000, reflecting a near-absence of external investment in clean-energy development. In 2021, inflows were high at $146 million, followed by a dramatic drop to only $14 million in 2022 underscoring over 90% decline. By 2023, flows rebounded significantly to $126 million, representing more than an eightfold increase from 2022. This fluctuation highlights a dependence on irregular donor cycles rather than sustained financing structures.

Trend assessment suggests that Somalia is not experiencing steady financial support, a factor critical for achieving SDG 7 by 2030. Although the 2023 rebound is encouraging, overall flows across the four-year period average to just under 75 million annually still below levels typically seen in regional peers that maintain steadier donor and investment pipelines. Benchmarking indicates that Somalia's volatility contrasts with East African regional trends where clean-energy financing, while still variable, does not usually collapse to the extreme low observed in 2022.

Underlying drivers of the fluctuations likely include shifts in donor priorities, macroeconomic constraints, governance and security challenges and project-level delays affecting funding disbursements. The low inflow of 2022 may reflect global financial tightening and redirection of aid during post-pandemic recovery, while the 2023 recovery signals renewed interest in Somalia's energy transition as stability improves in certain regions. These patterns reveal that Somalia's clean-energy progress is highly sensitive to external financing cycles.

Correlation analysis shows a clear disconnect between the level of financing required for transformative energy access and the instability of actual financial inflows. While high-investment years support project expansion, years with minimal inflows stall progress and widen the gap between current performance and 2030 targets. To stay on track, Somalia will need more predictable financing commitments, stronger coordination with development partners and improved absorption capacity to ensure that external flows translate into sustained and equitable renewable-energy development nationwide.

Figure 1.7: Energy intensity measured in terms of primary energy and GDP



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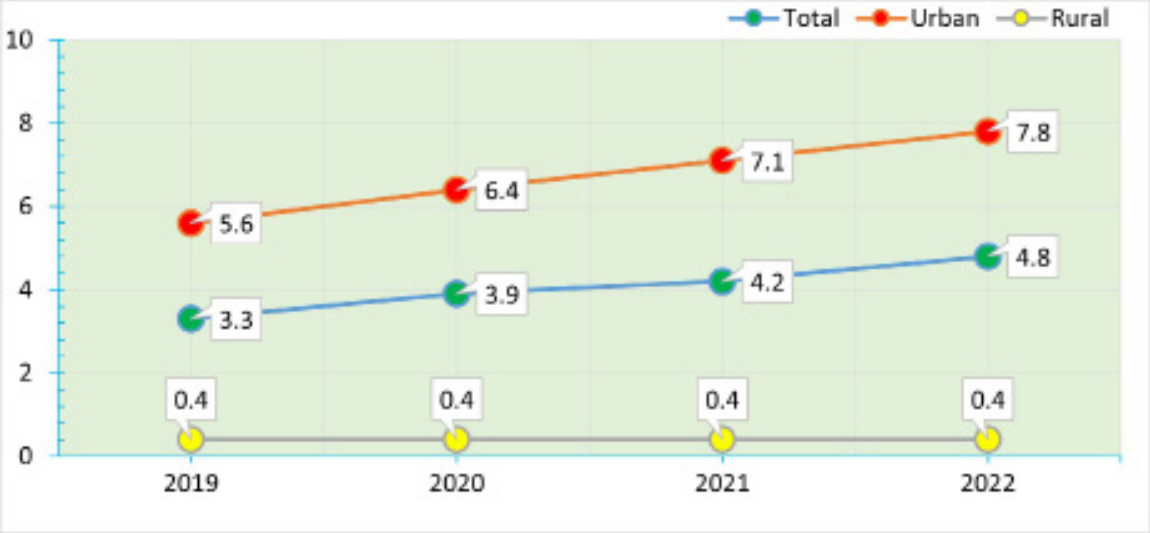
Somalia's energy intensity measured in mega joules per unit of GDP shows a clear upward and declining shifts between 2019 and 2022, indicating that the economy is becoming slightly more energy-intensive sometimes rather than more energy-efficient. Energy intensity held stable at 6.8 MJ/USD in 2019, rose sharply to 7.2 MJ/USD in 2020 and then declined slightly but remained elevated at 7.1 MJ/USD in both 2021 and 2022. This pattern suggests that the efficiency of energy use worsened during and after 2020, potentially linked to pandemic-era economic disruptions, shifts in sectoral activity or increased reliance on inefficient energy sources.

Trend assessment shows that the rise in energy intensity from 2020 onward places Somalia off track with respect to SDG 7.3, which calls for doubling the global rate of improvement in energy efficiency by 2030. Instead of decreasing, Somalia's energy intensity increased by about 4 to 6 percent compared with the 2019 baseline. While the slight improvement from 2020 to 2021 reflects partial recovery, the lack of further reduction through 2022 indicates stalled progress. Compared to regional peers; many of whom have made incremental efficiency gains, Somalia's current trajectory places it behind the broader East African trend.

Underlying drivers of this performance likely include reliance on diesel generation, limited penetration of efficient appliances, weak grid infrastructure and a high share of informal economic activity that consumes energy inefficiently. These structural constraints impede Somalia's ability to accelerate economic growth from energy consumption an essential element of sustainable energy development.

Correlation analysis reveals a misalignment between Somalia's current intensity levels and the downward trend needed to meet the 2030 energy-efficiency target. The persistent elevation of energy intensity after 2020 suggests that increases in renewable-energy capacity and external financing have not yet translated into improved efficiency. To close this gap, Somalia will need accelerated adoption of efficient technologies, reduced dependence on costly and inefficient fuels, stronger regulatory standards and targeted investments that support an energy-efficient economic transformation.

Figure 1.8: Access to clean fuels and technologies for cooking (2019-2022)



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The chart shows access to clean fuels and technologies for cooking in Somalia from 2019 to 2022, with focus on rural and urban populations. The overall national access rate increased modestly from 3.3 percent in 2019 to 4.8 percent in 2022, indicating some progress but at a very slow pace. Urban areas show a gradual rise from 5.6 percent to 7.8 percent, while rural access remains virtually stagnant at 0.4 percent throughout the entire period. This paints a clear picture of a widening inequality between urban and rural areas, where nearly the entire rural population still relies on traditional and polluting fuels such as charcoal and firewood for cooking.

From a broader perspective, Somalia's clean cooking access is among the lowest in the world. Despite some growth in urban areas; possibly linked to increased Liquefied Petroleum Gases among middle-income households, the country remains overwhelmingly dependent on traditional biomass, which explains why the renewable energy share in total energy consumption is so high as seen in the previous graph. The negligible rural progress reveals systemic barriers such as high cost of clean fuels, lack of effective supply chains for LPG or biogas, absence of national clean cooking policy enforcement and cultural reliance on charcoal and wood. Moreover, widespread poverty, insecurity in some regions, weak energy infrastructure prevent investment in modern energy access projects.

The implications are severe; reliance on dirty fuels contributes to deforestation, indoor air pollution and public health crises, particularly among women and children who spend long hours cooking in poorly ventilated spaces. To reverse this, Somalia should highlight clean cooking energy as a national development priority. Key steps could include subsidizing LPG and improved cook-stoves, expanding solar and biogas initiatives, supporting local production of affordable clean cooking technologies and integrating these goals into the rural development programs. Urban growth shows that change is possible with market incentives and awareness campaigns, but achieving meaningful nationwide progress will require policy coordination, donor fund and grassroots adoption strategies.

3.0. CONCLUSION & RECOMMENDATIONS

3.1. CONCLUSION

Somalia's progress toward achieving SDG 7 reflects a landscape of gradual improvement, persistent fragility and widening disparities in access to modern energy services. While the country has made notable gains, particularly in renewable energy capacity, urban electrification and the growing engagement of private sector, these achievements remain uneven and constrained by structural challenges. Rural and nomadic communities continue to face far lower access to electricity and clean cooking solutions, and traditional biomass still dominates national energy consumption, underscoring the need for more transformative and sustainable shift.

The trends also show that Somalia's energy transition is subject to high inconsistent financing, fragmented institutional coordination and weak data ecosystems. furthermore, reliance on diesel-based generation and limited investments in integrated grid systems hinder the pace of progress. Despite these constraints, Somalia has significant renewable-energy potential and a growing policy commitment that, if supported by strong evidence-based data and stable financing, can accelerate its transition toward affordable, reliable and sustainable energy for all.

The findings from this Report demonstrate that Somalia is on a positive but fragile trajectory. Achieving SDG 7 by 2030 will require stronger leadership by key stakeholders involved, more consistent investments and most importantly a robust energy data ecosystem that can support planning, monitoring and accountability across the country.

3.2. RECOMMENDATIONS

• Strengthening Somalia's energy data ecosystem must be prioritized as a fundamental step toward accelerating SDG 7 progress. This includes building a centralized national energy data repository that consolidates administrative data from MoEWR, NEA, SNBS and private energy providers to ensure harmonized, timely and disaggregated data.

• Improving data availability also requires stronger inter-agency coordination mechanisms. Establishing formal data-sharing agreements among key stakeholders involved will help reduce fragmentation and minimize inconsistencies in reporting. Regular technical working groups and data review committees should be institutionalized to jointly validate datasets, identify gaps and agree on methodological standards. Such structures will foster transparency and ensure that all stakeholders contribute to a unified national energy information system.

• Somalia should also expand the use of digital data-collection technologies, including mobile-based reporting systems, geo-referenced energy mapping tools and automated dashboards that allow real-time monitoring of electrification and clean-cooking interventions. Investments in capacity-building, covering data management, statistical analysis, GIS and energy modeling are critical to enhance the technical capacities of national and state-level institutions.

• In addition, dedicated financial support by the government and development partners is essential to support SNBS in its efforts to improve data governance, modernize statistical infrastructure and develop standardized national energy data systems. Targeted investments in human resources, digital technologies, and methodological harmonization will ensure that Somalia establishes a credible, resilient and internationally aligned energy data ecosystem capable of supporting evidence-based policymaking and effective monitoring of SDG 7 progress.

• Finally, to ensure long-term data flow, Somalia must embed data requirements into all energy projects financed by development partners and the private sector. This includes data-submission clauses, standardized monitoring frameworks and regular sharing of project-level metrics. A more predictable and transparent data ecosystem will not only improve reporting on SDG 7 but also attract investment, guide policy decisions and support evidence-based expansion of modern and sustainable energy services across the country.

4.0. BIBLIOGRAPHY

3.1 BIBLIOGRAPHY

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