



**Ministry of Energy and Water
Resources-Jubaland**

Jubaland Electricity Access Information

Energy Mapping Analysis Report

Energy Department

March 2023

ABDISALAN HAJI ADEN - ENERGY DIRECTOR - MoEWR-JSS

Email: energydirector.moewr@jubalandstate.so

Tell No: +252-615726669

TABLE OF CONTENTS

INTRODUCTION.....	3
OBJECTIVE.....	4
JUSTIFICATIONS	4
TARGET AREAS.....	5
OVER VIEW OF THE REPORT	6
ELECTRICITY ACCESS OF JUBALAND	6
SOLAR STREET LIGHTS SUMMARY DETAILS.....	7
ELECTRICITY SERVICE PROVIDERS (ESPs).....	7
ELECTRICITY SERVICE PROVISION BY STATE	8
SOLAR STREETLIGHTS GRAPH BY STATE.....	9
SOLAR STREETLIGHTS GRAPH OF GEDO REGION	10
SOLAR STREETLIGHTS GRAPH OF LOWER JUBA REGION.....	10
SOLAR STREETLIGHTS GRAPH OF KISMAYO	11
NON-FUNCTIONAL SOLAR STREETLIGHTS GRAPH OF JUBALAND	11
PARTNERS IMPLEMENTED JUBALAND SOLAR STREETLIGHTS	12
PARTNER MAPPING	12
CONCLUSION	13
APPENDIX.....	14

1. INTRODUCTION

- The Jubaland is a Federal Member State in southern Somalia. Its eastern border lies 40–60 km east of the Jubba River, stretching from Gedo to the Indian Ocean, while its western side flanks the North Eastern Province in Kenya, which was carved out of Jubaland during the colonial period. Jubaland state has a total area of 110,293km². Administratively, Jubaland State comprises of 3 regions Gedo, Lower Juba and Middle Juba. The regional capitals are Garbahaareey, Kismayo and Bu ‘Aale respectively. The population census conducted by UNFPA in 2014 estimated the population of Jubaland as 1.36million with 508,405 in Gedo region, 362,921 in Middle Juba and 489,307 in Lower Juba. As of 2019 Jubaland State is estimated to have a population of 2.5m people. The population of Jubaland State is predominantly rural. There are however a number of urban areas in the state. The city of Kismayu is the most populous in Jubaland state with an estimated population of 340,402. (2020 Feasibility study Kismayu Water Supply Project). There are other large urban areas such as Afmadow ,Bardera ,Luuq, and Balethawa, in addition to the capitals of Gedo and Middle Juba.
- Jubaland State has been struggling with Energy shortages for a long time, and the commitment of the Jubaland State and its people is basically focused on working towards faster development and social transformation. Currently, the Energy scene is private sector driven with crucial support from the line Ministries. Despite the critical role being played by the private Energy Service providers, the Energy needs of the Jubaland people from household, community, small and medium enterprises is not being met. There is an urgent need for huge support and investment in the Energy sector. These investments can be achieved through public private partnerships since the Jubaland Energy agency is not yet in Operation.
- The ministry is one among the many Ministries that was established in 2014 with overall responsibility of two sectors. Water Resources and Energy exploration, development and distribution on an equitable basis to the people of JSS. The mandate of the Ministry was vast considering its housing two key departments that have two different unrelated missions.
- The Ministry of Energy and Water Resources thus responsible for the formulation, direction and coordination of the state energy and water resources. It is tasked with the responsibility of creating institutions to manage water resources and provide energy and water services for the benefit of the people of Jubaland.
- The Energy department of the Ministry is responsible for the Energy of the state, the department has its strategy of developing the energy sector of the state to provide affordable and reliable Energy with low tariff rate for the community.

2. OBJECTIVES

- Formulating, directing and coordinating of the state energy resources. to create institutions to manage Energy resources and provide Energy services for the benefit of the people of Jubaland.
- Identify the Energy demand and supply gaps of the Target Districts to provide affordable and reliable energy with cheap price for the community.
- To Identify energy gaps of the target districts to seek support from international and national also for investments and Fundraising

3. JUSTIFICATIONS

The Energy department of the Ministry intends to conduct an assessment regarding the energy needs in all districts of the Jubaland State, except Middle Juba Districts which is considered to be hard to reach because of the security constrains. This had affected both stabilization in terms of Governance structures and provision of humanitarian services including Energy.

This data collection is based on the identification of the Energy demand and supply gap of the State districts and its part of the Energy department's readiness to address energy needs. Once the data is collected, the Ministry in collaboration with NGOs, donors and the Federal Government will work to meet those needs and prioritize them as per data analysis outcome.

There are solar street light projects implemented in some of the districts` main streets by the INGOs and LNGOs but most of them are not functioning and require rehabilitation since there was no Sustainability plan for maintenance of the solar street lighting systems in the IDPs settlement and streets to maximize the life span of its operation and to achieve sustainable lighting/power supply. Therefore, in this Data collection we will also be much focused on the solar lighting which was significantly improving the health and safety of IDPs, while also enhancing their protection needs, strengthening social cohesion and reducing the burden on vulnerable groups including women.

4. TARGETED AREAS

S/N	District	Region	GPS Coordinates		Accessibility
1	Kismayo(6 sub villages)	Lower Juba	Long	42.546057" E	Accessible
			Lat	0.356046" N	
2	Afmadow	Lower Juba	Long	42° 04' 14.40" E	Accessible
			Lat	0° 30' 33.59" N	
3	Dhobley	Lower Juba	Long	42.3071" E	Accessible
			Lat	2.4906" N	
4	Garbaharey	Gedo	Long	42° 18' 16.80" E	Accessible
			Lat	2° 20' 6.00" N	
5	Luuq	Gedo	Long	42° 32' 45.8052" E	Accessible
			Lat	3° 48' 47.1888" N	
6	Dolow	Gedo	Long	42.079416	Accessible
			Lat	4.164175	
7	Balethawa	Gedo	Long	41°52'34"E	Accessible
			Lat	3°55'43"N	
8	Bardhera	Gedo	Long	42.288006	Accessible
			Lat	2.339047	
9	Burdhubo	Gedo	Long	42.493322	Accessible
			Lat	3.168621	
10	Elwak.	Gedo	Long	41.441251	Accessible
			Lat	2.686176	

5. OVER VIEW OF THE CURRENT EXISTING INFRASTRUCTURES AND ELECTRICITY SERVICE IN JUBALAND

Energy Department of the Ministry of Energy & Water Resources of Jubaland have conducted Energy Mapping on March 2023 in 11 districts of Lower Juba & Gedo Regions of Jubaland aiming to map current existing energy infrastructures, gaps and electricity accessibility of Jubaland and below is summary of the mapping outcome

- There are eleven accessible districts in Jubaland that have access in electricity services and are served by Private Electricity Service Providers.

6. ELECTRICITY ACCESS OF JUBALAND

- The Private Electricity Service Providers In the two Jubaland Accessible regions (Lower Juba & Gedo), reach a total population of 155,805(Lower Juba 84,175 & Gedo 71,630) Population, including HHs, business centers, private companies, public institutions, & IN/LNGOs Offices,
- Kismayo hosts the most populations with the Electricity Access, while Badhaadhe ESPs serve the fewest (Kismayo-68,750 & Badhaadhe 3210)
- The Private Electricity Service Providers offer their customers in the two regions an average of 18 hours of service with an average cost of \$1.31 per KW.
- The communities of Garbahaareey, Burdhubo, and Badhaadhe pay the highest rates (\$1.9–\$2) for electricity service, while Kismayo Community pays the lowest rates (\$0.7).
- Almost majority of the districts receive 24-hour electricity service, with the exception of Burdhubo, which receives 13 hours, Garbahaareey, 12 hours, Elwak, 6 hours, and Badhaadhe, 7 hours.
- The majority of Electricity Service Providers employ generators, which results in extremely high fuel consumption.
- There is a community Solar System in Midnimo IDPs center implemented by ALIGHT that give electricity service to a population of 110HHs, this system need repair after serving the community for 5 years period.

7. SOLAR STREET LIGHTS SUMMARY DETAILS

- There are solar Street lights Implemented by the humanitarian organizations to the districts and displaced persons in Jubaland, most of which are not working due to lack of maintenance. The department of energy for the ministry has conducted an assessment to identify the current condition of the solar streetlights in order to share with the partners for repair support and extensions as well , Humanitarian organizations have implemented solar street lights in Jubaland State Districts, totaling 1,211 in 9 districts in the Lower Juba and Gedo regions, 381 of which are currently operational and providing community illumination, and 830 of which are not at work due to a variety of problems, such as a low or dead battery, a missing or wrong angled solar panel, connection issues, and other factors.
- 729 of them are in lower Juba (Kismayo 639, Afmadow 40, and Dhobley 50) and 482 are in Gedo (Bardera 54, Balethawa 56, Dolow 117, Luuq 129, and Garbaharey 120 & Elwak 6).
- The nonfunctional Solar Streetlights-Jubaland 830 Pieces (Kismayo -449,Dhobley - 39,Afmadow – 4,Bardera – 19,Balethawa-47,Luuq – 71,Dolow – 87,Garbaharey – 108,Elwak – 6)
- In Kismayo Gulwade Village has no any Solar Street lights.
- In contrast to Elwak, which has just only six solar street lights Installed by DRC surrounding the police station and none of them are functional, Burdhubo and Badhaadhe districts have no solar street lights.

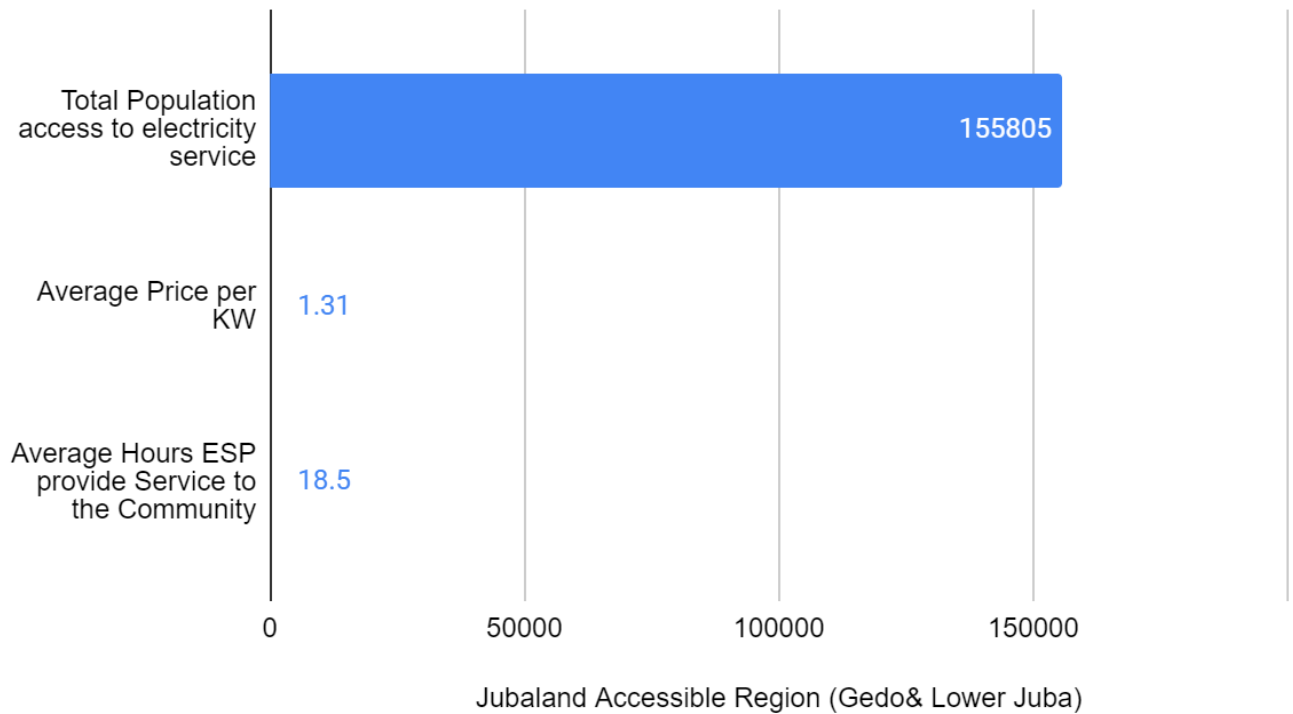
8. ELECTRICITY SERVICE PROVIDERS(ESP) IN LOWER JUBA & GEDO REGIONS-JUBALAND

S/N	REGION	DISTRICT	ELECTRICITY COMPANY NAME
1	Lower Jubba	Kismayo	Jubba Energy Service Company (JESCO)
2	Lower Jubba	Kismayo	Waamo Energy Service Company (WESCO)
3	Lower Jubba	Afmadow	Amal Electric Company(AMECO)
4	Lower Jubba	Dhobley	Amal Electric Company (AMECO)
5	Gedo	Luuq	Jubba Electricity Company
6	Gedo	Balethawa	Gedo Energy Power Company
7	Gedo	Balethawa	Balethawa Electric Company
8	Gedo	Bardhera	Jubba Energy Power Company
9	Gedo	Bardhera	Ileys Electricity Company

10	Gedo	Elwak	Elwak Electric Company
11	Gedo	Burdhubo	Jubba Electric Management Company
12	Gedo	Burdhubo	Kaafi Electric Company
13	Gedo	Garbaharey	Dadaal Electric Company
14	Gedo	Garbaharey	Raasamaal Electricity Company
15	Gedo	Dolow	Somali Power & Lightning Company

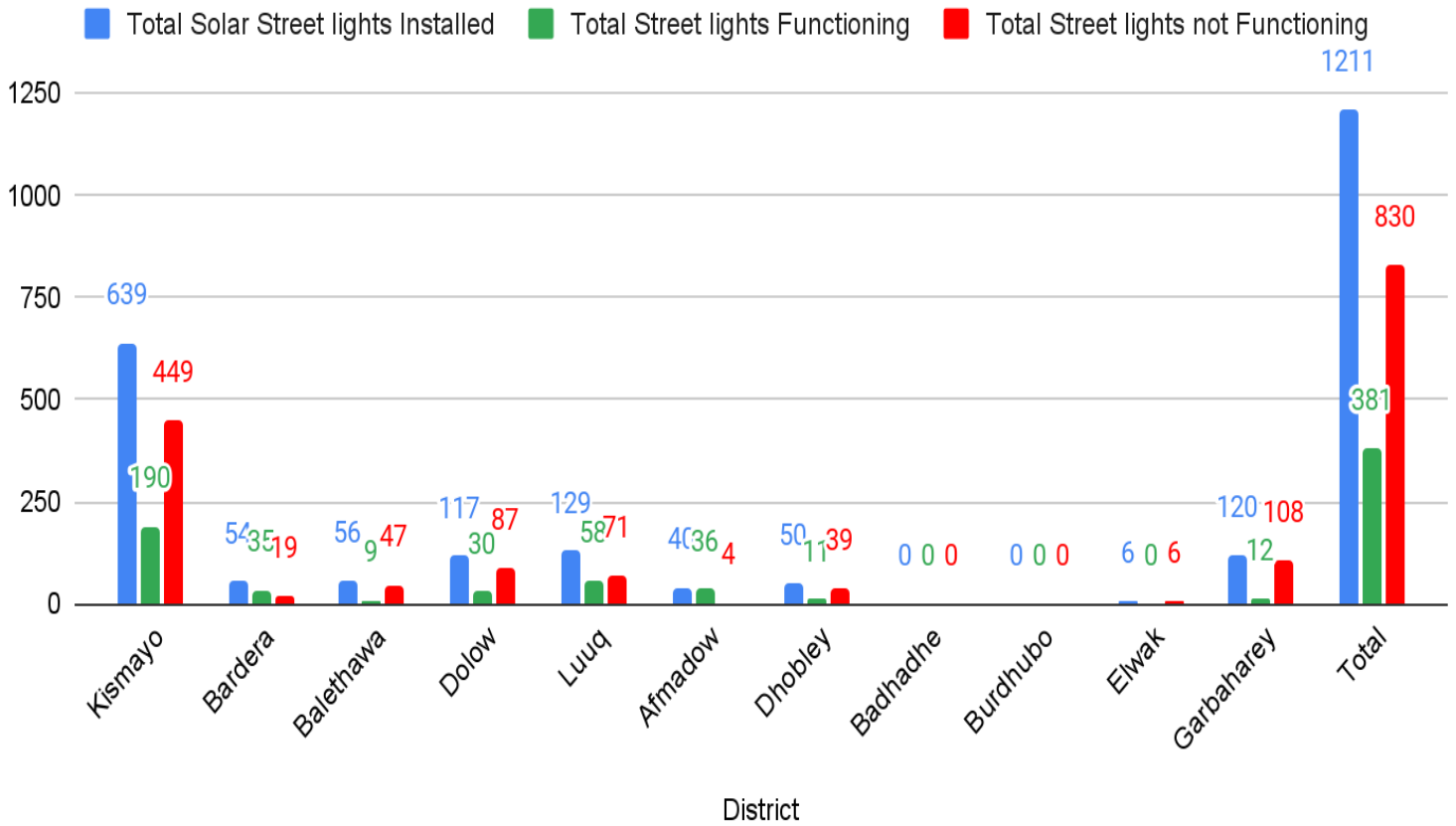
9. ELECTRICITY SERVICE PROVISION BY STATE

Electricity Service Provision by State



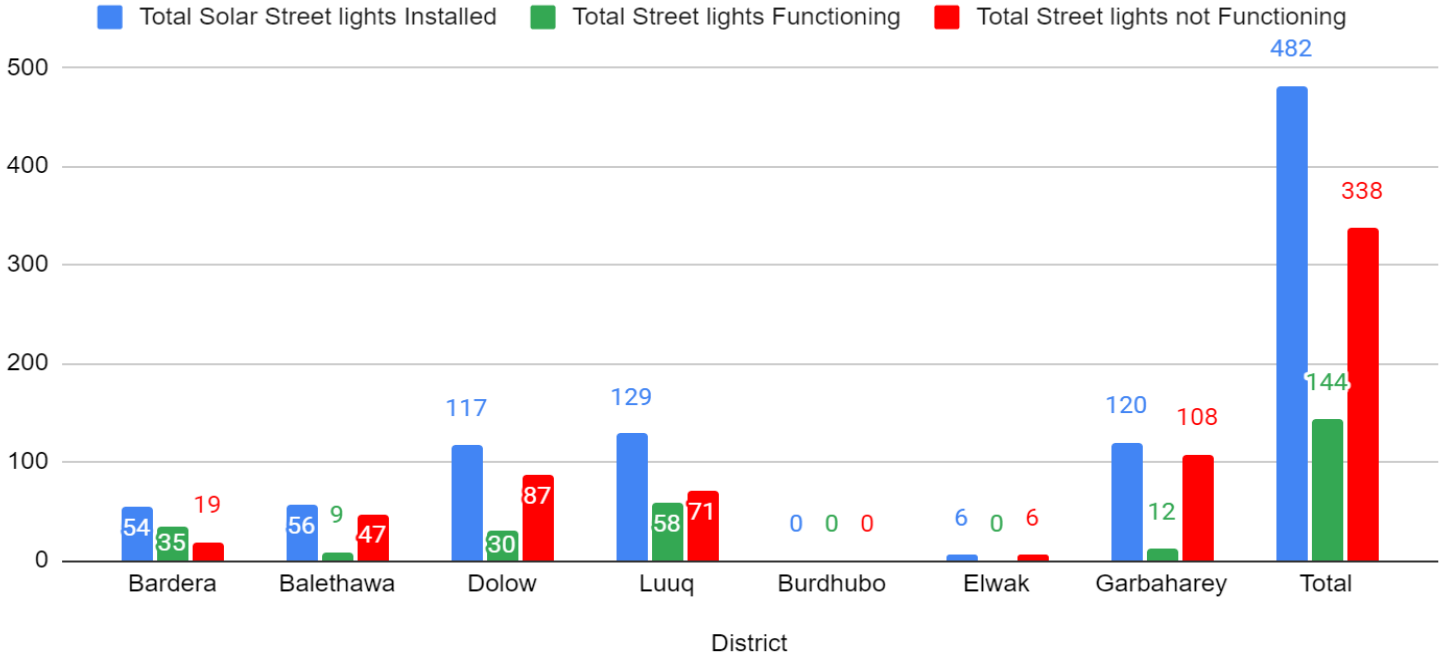
10. SOLAR STREET LIGHTS-JUBALAND STATE DISTRICTS

Solar Street Lights Information by State districts



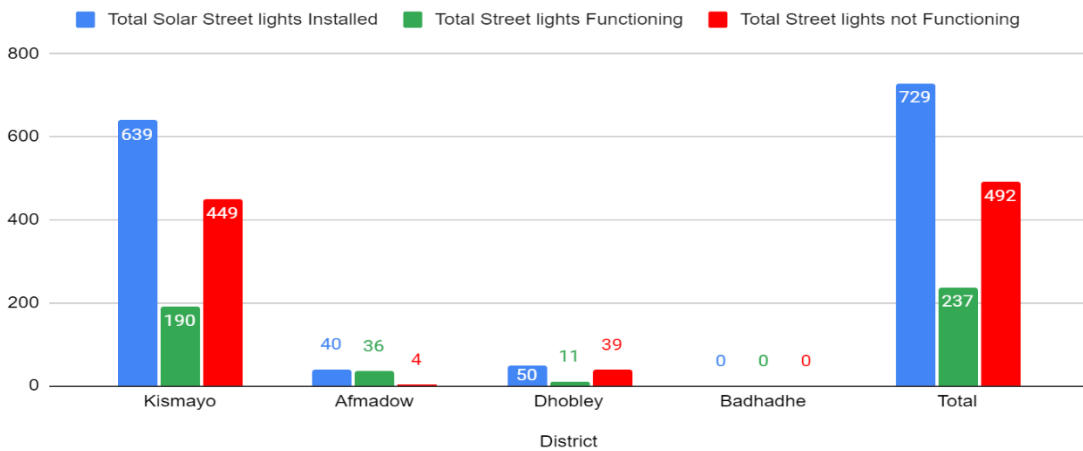
11. SOLAR STREET LIGHTS – GEDO REGION

Solar Street Lights Information- Gedo



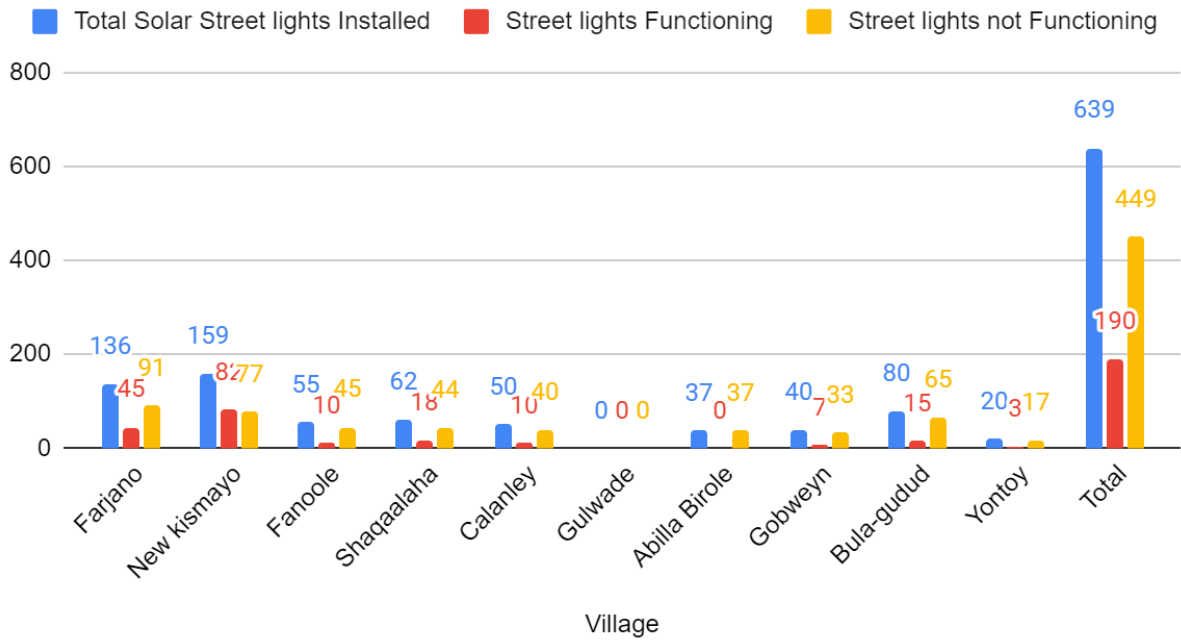
12. SOLAR STREET LIGHTS – LOWER JUBA REGION

Solar Street Lights Information - Lower Juba



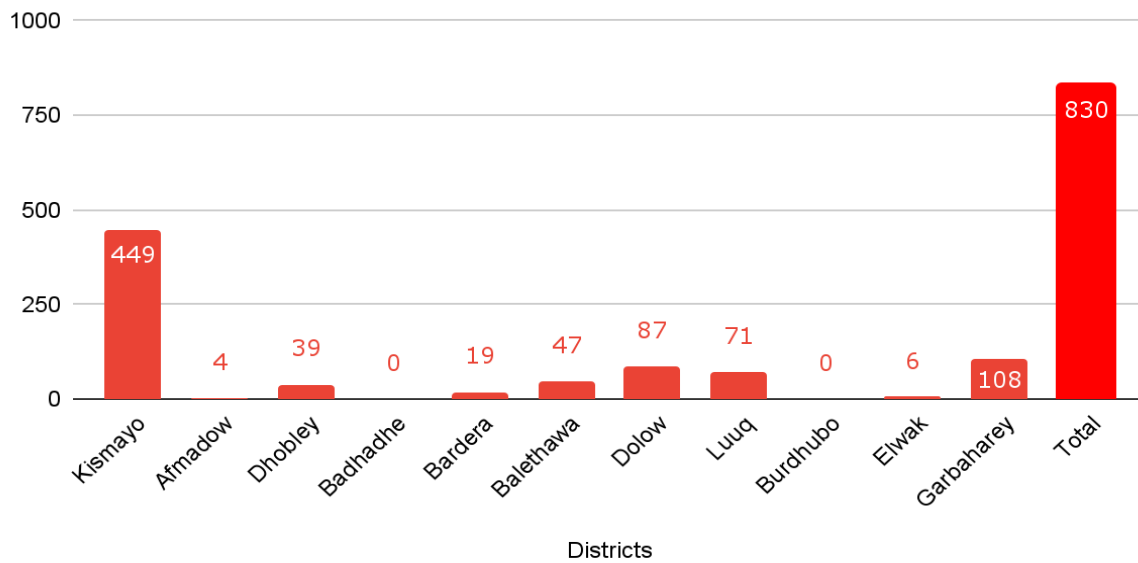
13. SOLAR STREET LIGHTS-KISMAYO

Solar Street lights- Kismayo



14. NON-FUNCTIONAL SOLAR STREET LIGHTS - JUBALAND

Non-functional Solar Street lights - Jubaland



15. PARTNERS IMPLEMENTED SOLAR STREET LIGHT PROJECTS

- NIS foundation
- DRC
- IOM
- NRC
- ACTED
- GIZ
- ALIGHT
- SADO
- ADRA

16. PARTNER MAPPING

The Department has mapped the Partners listed below for fund mobilization and support since they are involved in Energy components, some of them as their key mandate while others conduct Energy components within other projects.

- NIS Foundation
- ADRA
- IOM
- ALIGHT
- NRC
- GIZ
- DRC
- UNDP
- ACTED
- SADO

17. CONCLUSION

The Ministry is underlining the necessary to address the energy gaps, existing Electricity infrastructures and electricity services of Jubaland to attract the donors, diaspora, investors and humanitarian supports.

2. The ministry is here to ensure that the energy department of the ministry is onboard to take its responsibilities regarding the energy sector programs and it is necessary the humanitarian organizations liaise with the updates related to energy development projects from now on.

3. The ministry is looking for funds for the Jubaland electricity gaps, especially following currently conducted energy assessment's finding; the department of the Energy is seeking support for the nonfunctional Solar Street lights. The assessment results show that most of the Solar street lights that were implemented by the Humanitarian organizations for the community are not currently functional. According to the results, only 381 solar street lights are currently working out of 1211 solar street lights in Jubaland (lower juba & Gedo), while the other 830 are not working. , so thanking those who have already implemented for the community, we are looking for rehabilitation support for the 830 solar street lights in the 9 districts of Jubaland, as graphs below shows and additional 2000 new solar street light installation for Jubaland mainly IDPs settlements and important city roads.

4. Department of Energy has been exploring ways to get lighting for IDPs settlements of Jubaland especially Luglow area in Kismayo, aiming to support this vulnerable community benefit from the exposure of the scorching sun in order to get lighting at night and Small energy kits for daily use like charging phones. Solar lighting would significantly improve the health and safety of IDPs, while also enhancing their protection needs, strengthening social cohesion and reducing the burden on vulnerable groups including women.

5. The ministry has established Jubaland Energy Development Agency (JEDA) Along with the Energy department and is also looking support for Operationalization.

18. APPENDIX



Solar Street light
Assessment-Jubalan

Solar Street light Assessment-Jubaland

Department of Energy for the Ministry of Energy and Water Resources - Jubaland is eager to conduct Solar Street Light Assessment around Jubaland Districts

Enumerator Information

1.1 Enumerator's Name

1.2 Gender

- Male
 Female

1.5 Title of the Enumerator

1.6 Enumerator's Contact No

1.9 Solar Street Light No

Please Count from 1

1.10 Gps Coordinates

latitude (x.y °)

longitude (x.y °)



Location

1.7 Region

- Lower Jubba
- Gedo
- Middle Jubba

Solar Street Light Information

2.1 Is the Solar Street light Functioning?

- Yes
 No

2.2 Is the Solar Pannel Missing?

- Yes
 No

2.3 Is the Battery Missing?

- Yes
 No

2.5 Is the Bulb Missing?

- Yes
 No

2.6 Is the Solar Poll standing probably?

- Yes
 No

2.7 Are there Cut Wires Hanging?

- Yes
 No

2.8 Is the Solar Street light in Dim Light?

- Yes
 No

2.11 As Energy Staff or Enumerator What are your Recommendations Upon Your Observation

- The Solar Light need repair
 The big components like battery , Poll & Solar pannel need to be changed
 The Solar poll need to be re-Installed probably



