



ENERGY STATISTICS KINGDOM OF LESOTHO

WORKSHOP ON ENERGY STATISTICS FOR WESTERN AFRICAN COUNTRIES

15 – 18 OCTOBER 2019, DAKAR, SENEGAL

COUNTRY PROFILE

QUICK FACTS

- Area (30,355km²)
- Population: 2million (Census 2016)
- Energy:
 - Electrification Rate: 36.9% (HECS 2017)
 - Energy Supply Self-Sufficiency: 44%, Import Dependency 56%
 - Only 3% households use Improved Fuelwood stoves

COUNTRY MAP



DATA COLLECTION

- The Planning Unit of the Department of Energy (DoE) is responsible for collection of energy statistics and compilation of annual energy balances in the country.
- The Bureau of Statistics (BoS) is responsible for all surveys including population, economy and other sectors upon request by relevant ministries.
- DoE closely collaborates with BoS (Energy and Environment Unit) in all energy surveys and in compilation and dissemination of energy reports and balances.

DATA COLLECTION: ADMINISTRATIVE RECORDS

1. Lesotho Electricity Company (LEC) and Lesotho Electricity and Water Authority (LEWA) provides all data on:

- Local Generation: 72MW hydro, 280KW solar, 2MW and 180KW hydro-diesel hybrid
- Imports: ESKOM and EDM
- Sales by customer category
- Transmission and Distribution losses and
- new connections
- Approved tariffs by customer category

2. Multinational Oil Companies (Engen, Total and Puma Energy) and LPGas Companies (Afrox, Total and EasiGas): oil and LPGas imports

3. Petroleum Fund: Wholesale Oil Prices

4. Mission Aviation Fellowship: Aviation Fuel imports and prices

5. Lesotho Revenue Authority (LRA): imports of fuel wood

6. Technologies for Economic Development: installed biogas, prices

DATA COLLECTION: SURVEYS

1. 2017 Household Energy Consumption Survey (HECS):

- Types and quantities of fuel used by activity e.g. biomass access(collection and travel time) , usable area, number and type of meals cooked per day, appliances, number and types of meals, preferred future choices

2. Sectors Energy Consumption Survey, 2017:

- Phase 1 covered: Health, Education, Industry, Public Institutions, Mining & Quarrying
- Phase 2: Hospitality and Agriculture
- Phase 3: Transport and Financial Sectors

DATA COLLECTION: OTHER SURVEYS

Type of Data	Source	Frequency
Main source of energy for; -lighting -heating -cooking	Population and Housing Census	Every 10 years
Main source of energy for; -lighting -heating -cooking	Lesotho Demographic Survey	Every 5 years
Type of cooking fuel	Demographic and Health Survey	Every 5 years
Main source of energy for; -lighting -heating -cooking	Household Budget Survey	Every 5 years

DATA UTILISATION:

- Production of Energy Balances(2017)
- Energy Demand Analysis (MAED), to be published
- Energy Supply Analysis(MESSAGE)
- Developing Energy Efficiency Indicators
- Calculation of GHG emissions
- Track progress on national energy targets and international agendas

DATA AND INFORMATION SHARING

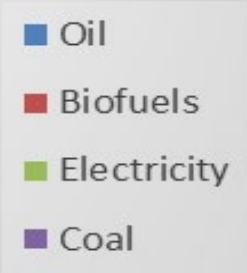
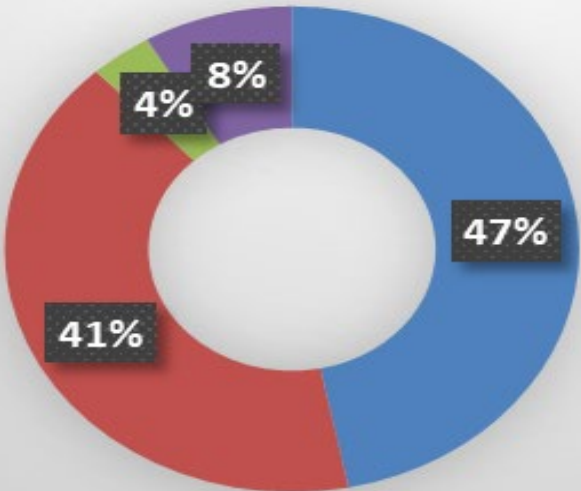
- Energy Reports and balances published at BoS website
- Energy Sector Coordination Forum;
- National Energy Planning Team
- Committee for Development of Environmental and Energy Data
- Energy Information System and website in pipeline

CAPACITY BUILDING

- IAEA – Energy Planning and Energy Statistics (EBS, MAED, MESSAGE, FINPLAN, SIMPACTS), survey design
- IRENA – Renewable Energy Statistics
- IEA & AFREC – Energy Statistics and Balances, Energy Prices, Energy Efficiency Indicators

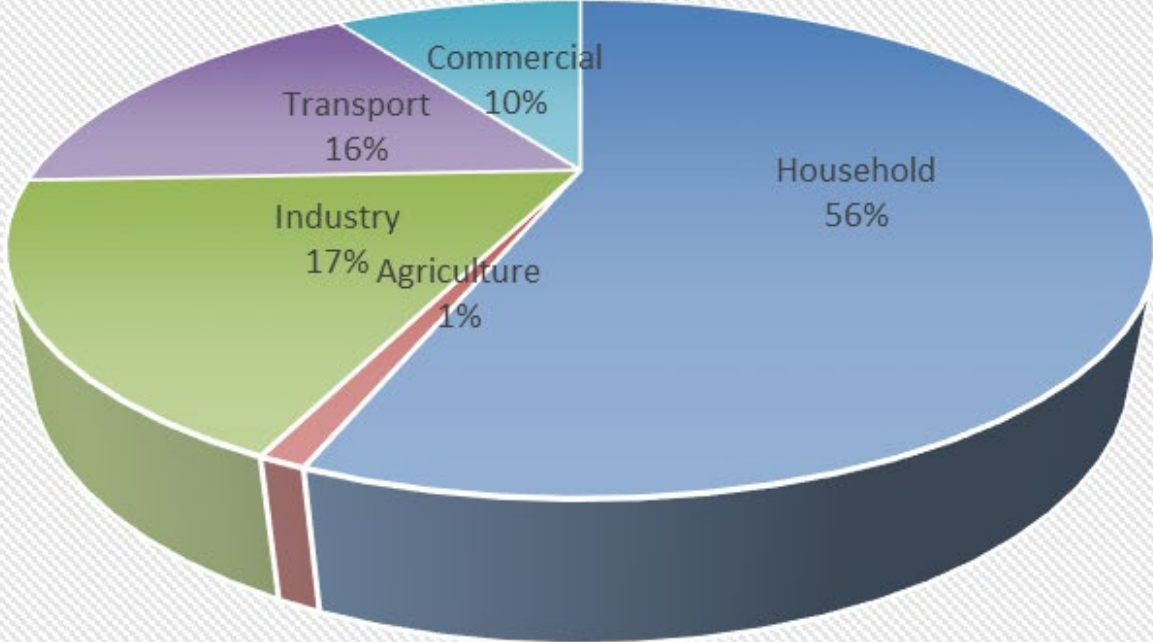
ENERGY BALANCE 2017

Analysis of Total Energy Supply by Fuel



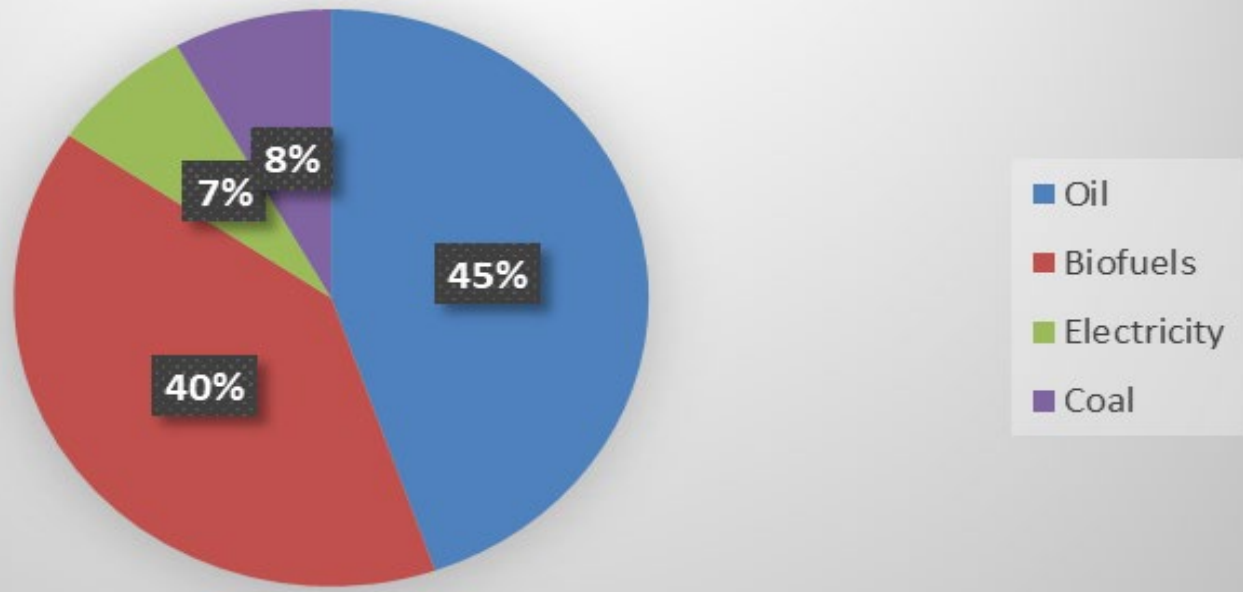
ENERGY BALANCE 2017

Analysis of Final Energy Consumption by Sector



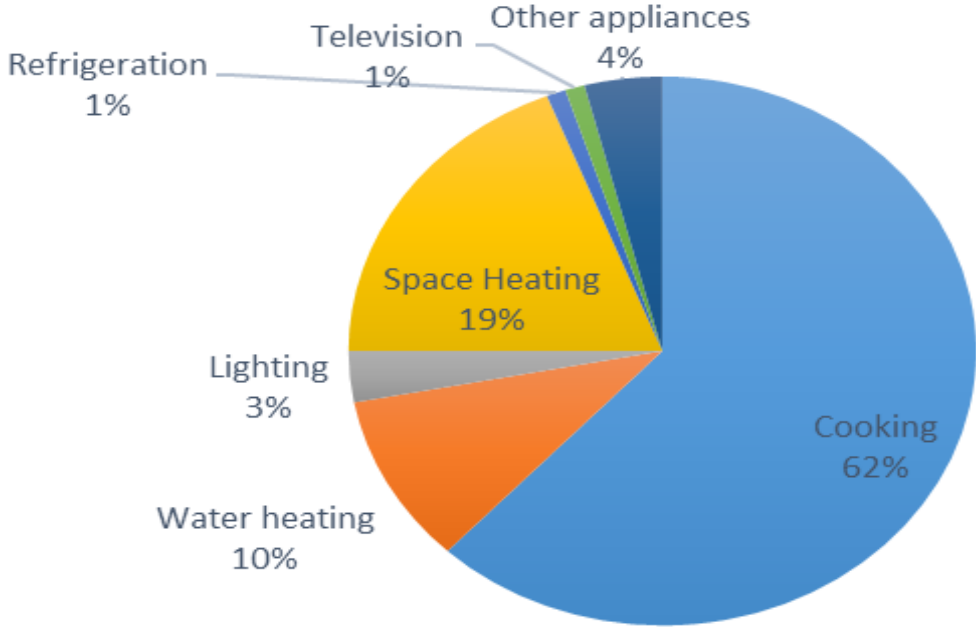
ENERGY BALANCE 2017

**Analysis of Final Energy Consumption
by Fuel**



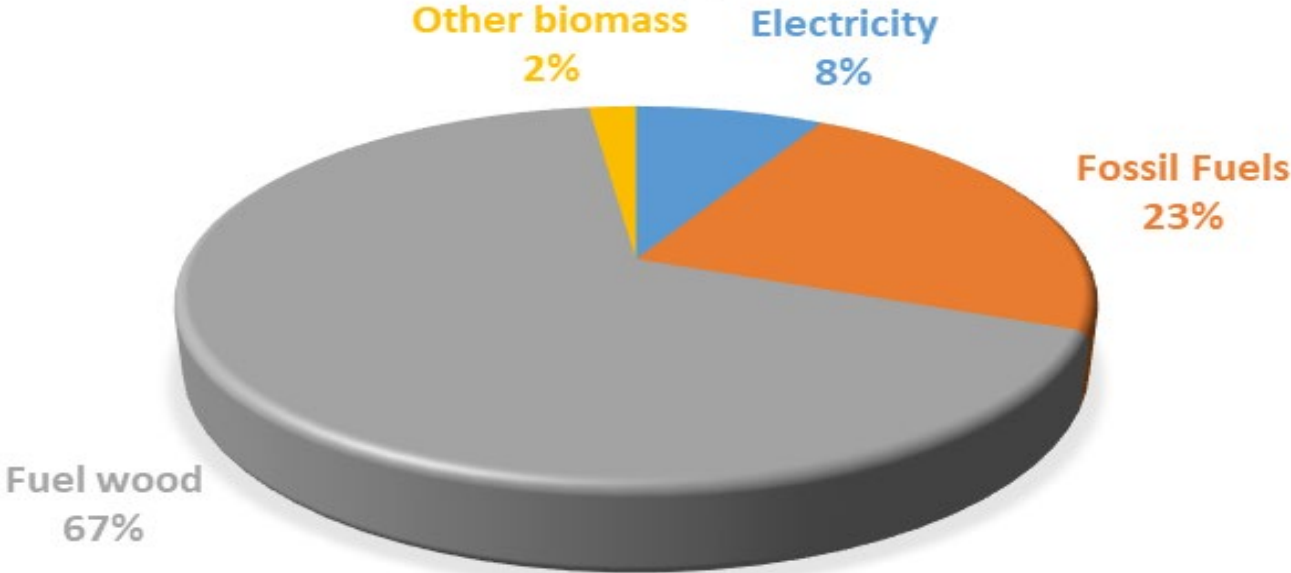
RESIDENTIAL ENERGY EFFICIENCY INDICATORS 2017

RESIDENTIAL ENERGY CONSUMPTION BY END-USE



RESIDENTIAL ENERGY EFFICIENCY INDICATORS 2017

RESIDENTIAL ENERGY CONSUMPTION BY FUEL



CONCLUSION AND CHALLENGES

- Funding for data collection a challenge hence the phases in SECS
- Further capacity building in survey design, data analysis and questionnaire design, energy efficiency indicators, standards, reporting and publishing
- Developing projections from the baseline data

REA LEBOHA – THANK YOU