



Regional Forum on ECOWAS Solar Energy Initiative (ESEI)  
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# NATIONAL PRESENTATION

## LIBERIA

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# Background



Total geographic area:

111,370 km<sup>2</sup>

Total land area:

96,320 km<sup>2</sup>

Coastline:

579 km



# Background Cont.



## Relevant Indicators

Indicator	Value
Total Population	3.48 Million
Urban Population	38%
Rural Population	62%
Population Growth Rate	2.1%
GDP Per Capita (US\$ and PPP\$)	190.00
% of Population With access to grid electricity	<10
Current Power Generation by National Grid (diesel fuel)	9.6 MW
Current electricity tariff (National Grid)	US\$0.46 per kWh
Current power generation from renewable sources (hydro & solar only)	4.11 MW

Source: Ministry of Lands, Mines & Energy



# Renewable Energy Resource Potential



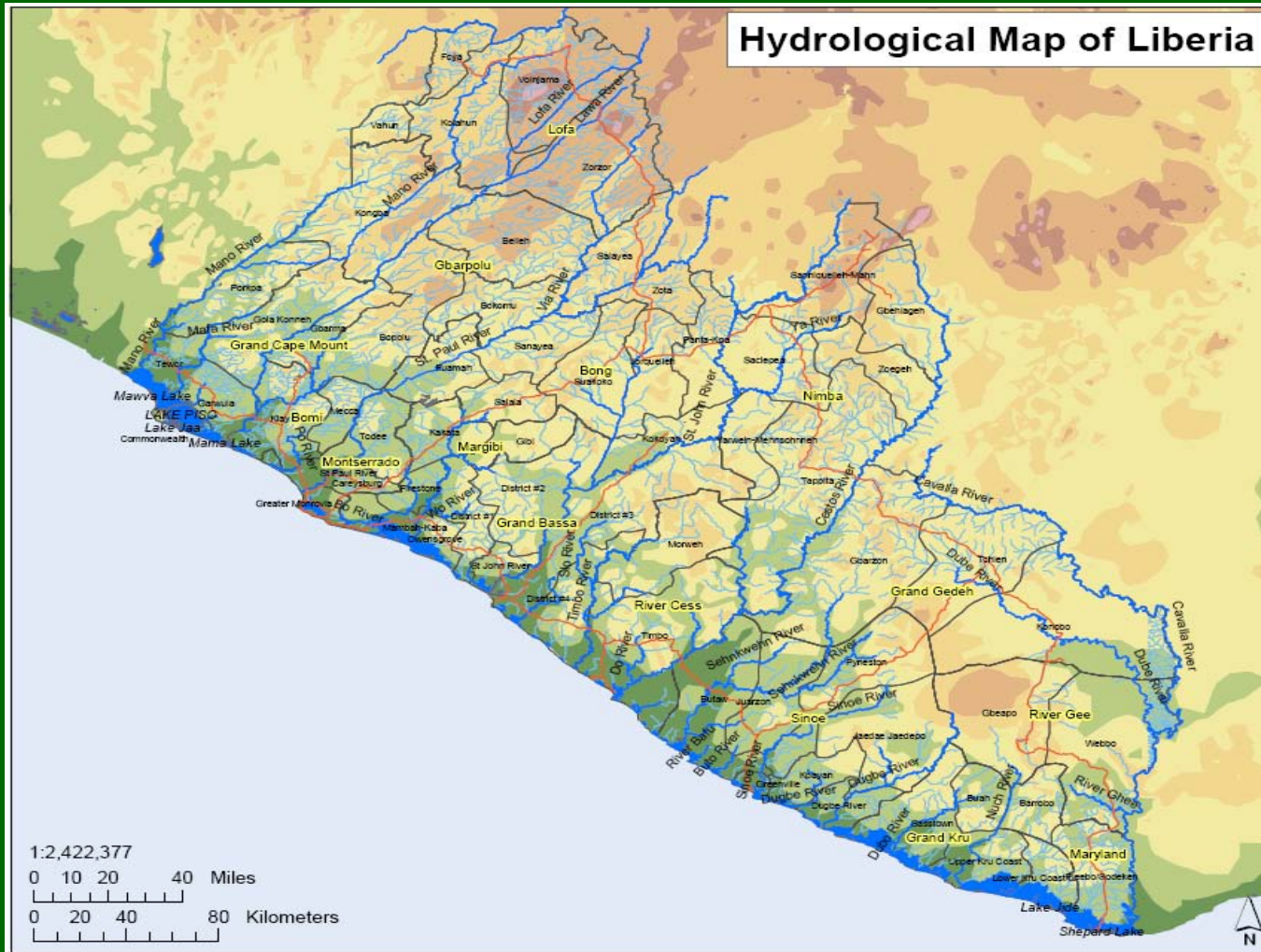
Liberia is endowed with enormous renewable energy resources:

- **Hydro**
  - **Biomass**
  - **Solar**
    - **Wind**

*There is currently no reliable National wind resource data for Liberia. Notwithstanding, observations along good shows prospects for wind power development in the country.*



# Hydro Potential



Liberia has six major rivers, which drain about 66% of the country's water.

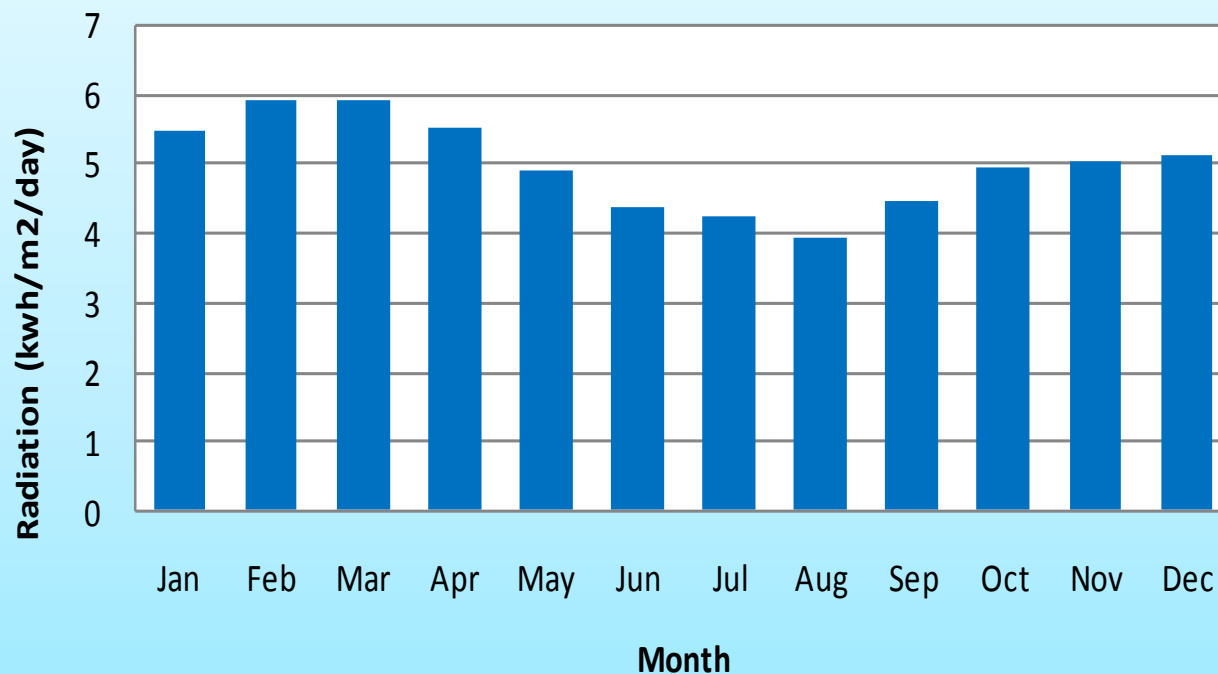
Proven hydro power potential is in excess of 1,000 MW, out of which only 4MW is currently generated.



# Solar Potential



Solar Radiation on Horizontal Surface



Monthly solar radiation on horizontal surface is about 4 to 6 kWh/m<sup>2</sup>/day

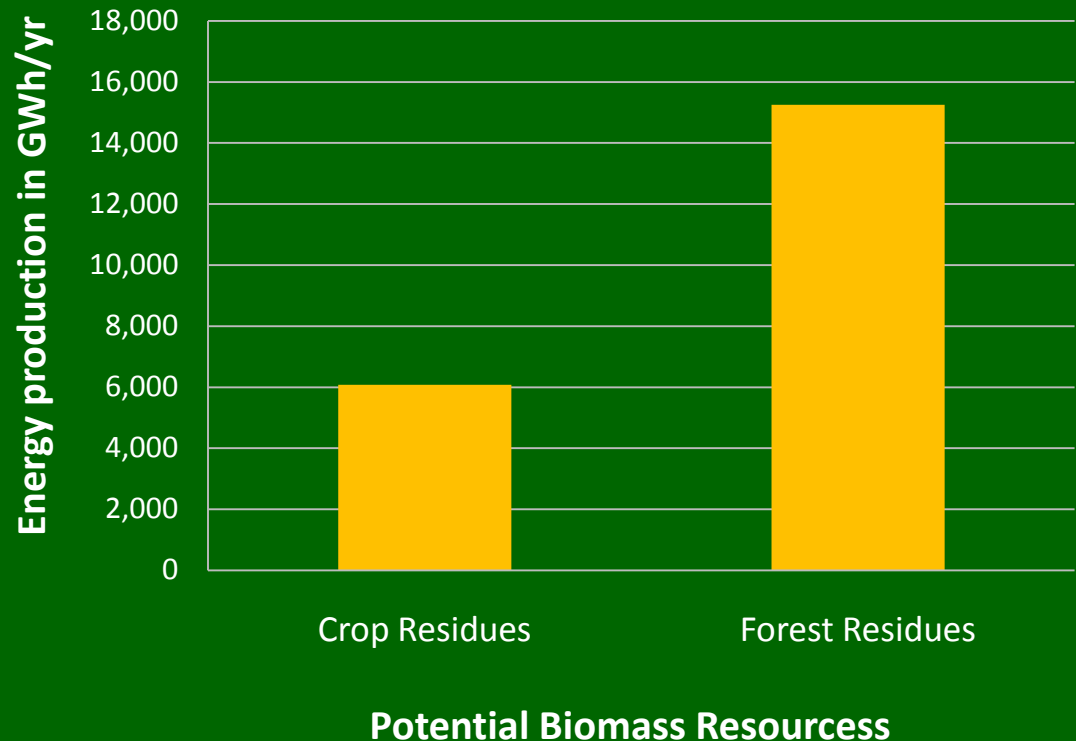
Total installed capacity is about 110kW



# Biomass Potential

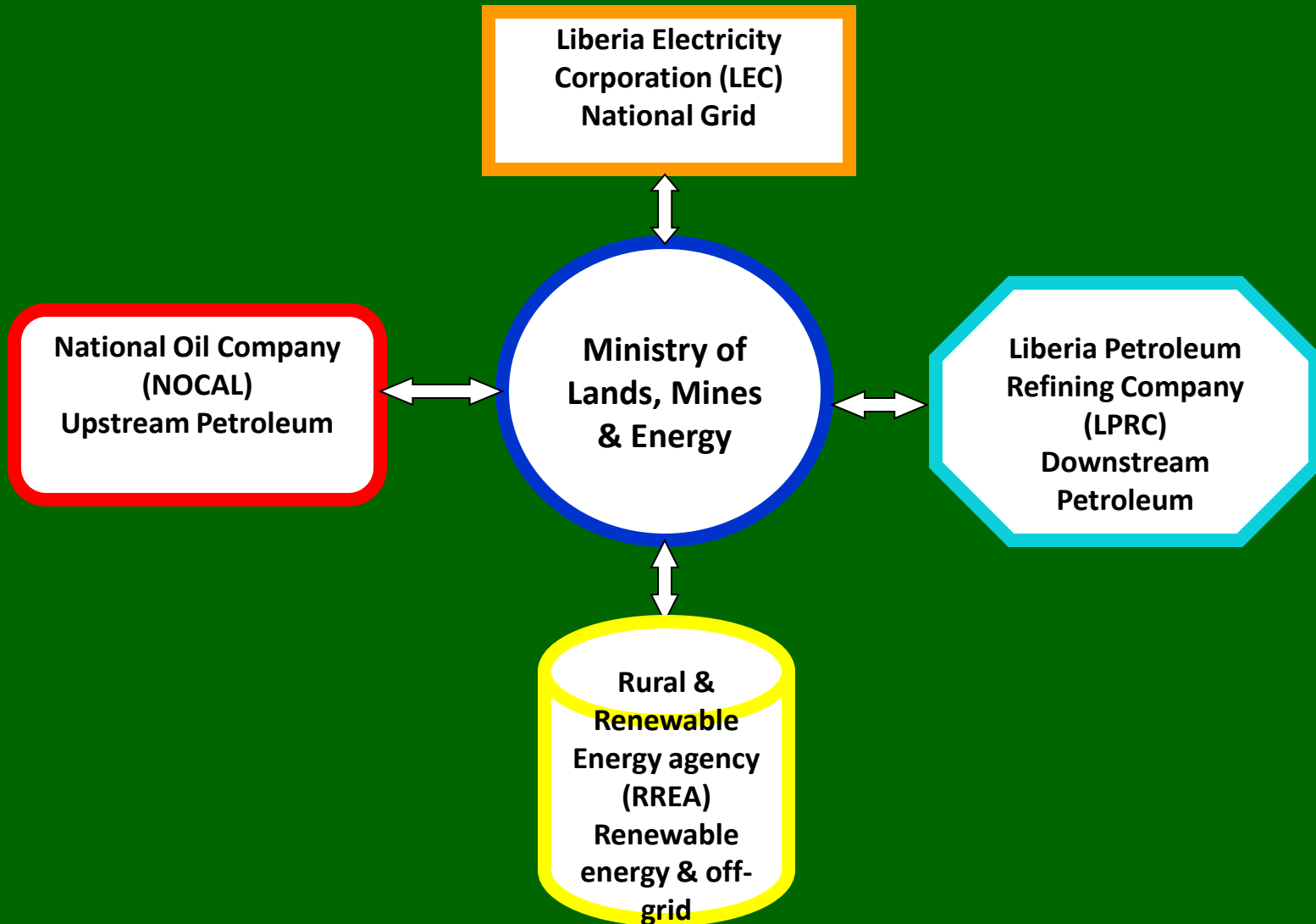


Because Liberian vegetation is mainly used for tree-crop and food-crop production and forestry, woody biomass is the predominant biomass resource available.





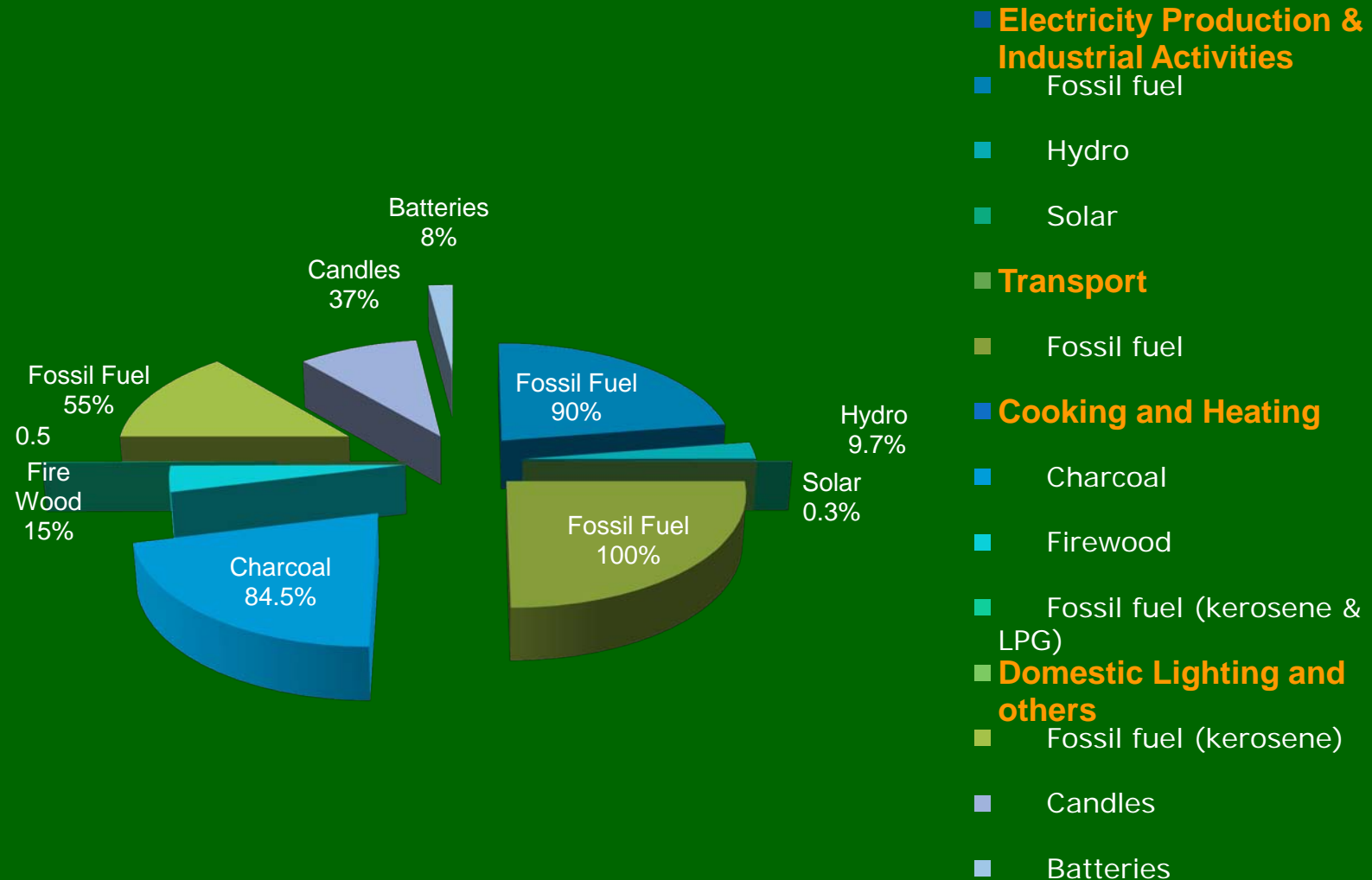
# Ministry of Lands, Mines & Energy (MLME) Linkages to Other Energy Institutions







# Energy mix – share of various energy sources





# Main Elements of National Energy Policy



The policy focuses on universal access to modern energy services in an **affordable, sustainable and environmentally-friendly** manner in order to foster the economic, political, and social development of Liberia.

The Policy addresses the following strategic issues that are implied in its principal objective – **access, quality, cost, and institutional framework**. These issues refer to the need for the various technologies and delivery options for energy products and services to be **available, acceptable, affordable and adequate** and an institutional structure to achieve the objectives



# Institutions for Implementing Legal and regulatory Framework



Legal and regulatory framework for the energy sector are implemented through the following institutions:

- ❑ *Ministry of Lands, Mines & Energy (overall energy policy & regulation)*
- ❑ *Liberia Electricity Corporation (electricity sector regulation)*
- ❑ *Liberia Petroleum Refining Company (downstream petroleum sub-sector regulation)*
- ❑ *National Oil Company of Liberia (upstream petroleum sub-sector regulation)*
- ❑ *Rural and Renewable Energy Agency (renewable energy sub-sector regulation)*



**THANKS FOR YOUR ATTENTION !!!!**