







Mitigation Enabling Energy Transition in the MEDiterranean region

# **Med Observeeer – Moroccan Experience**

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## **MED Observeeer**

- Med Observeeer is a database that needs to be completed, allowing for the development of macroeconomic and sectoral EE indicators. It contains detailed data required for analyzing trends in energy demand evolution, including energy consumption by sector and use, economic and technological determinants (GDP, value added, etc.). Based on this data, several EE indicators can be calculated.
- This is an initiative led by MEDENER as part of the MeetMED project, which
  provides an opportunity to launch a process of updating and deepening EE
  indicators, with the aim of harmonizing methods and assumptions for
  calculating the indicators for international comparison.





# **Collected Data**

Database established for the period between 2000 and 2020.

	Macro	Energy	Industry	Transport	Residential	Tertiary	Agriculture
% Completeness	85%	65%	60%	50%	5%	30%	40%





# **Collected Data**

### **Socioeconomic Data**

- GDP, national currency
- Exchange rates
- Value added by sector in current currency and constant prices
- Private consumption of households
- Population

### **Primary energy consumption**

• Coal, natural gaz, oil...

### Renewable electricity production

• Hydro, wind and solar

### Final energy consumption by sector and type

- Coal, natural gaz, oil (Diesel, fuel, LPG et others), biomass
- Industry, transport, residential, tertiary, agriculture

### **Electricity sector**

- Installed capacity (thermal, hydroelectricity, solar, wind)
- Electricity production (gross, thermal, renewable)
- Power plants consumption
- Import-Export of electricity





# Source of collected data by sector

	Data	Source					
	Macro Data						
	Socioeconomic Data	НСР					
	Primary energy consumption	Energy balance - MTEDD					
	Final energy consumption	Energy balance - MTEDD					
	Climatic data	Under exploration					
	Other data	НСР					
	Energy Sector						
	Total consumption of the energy sector	Under exploration					
	Hydrocarbons sector	Energy balance/ Under exploration					
	Electricity sector	Energy balance MTEDD - ONEE					
	Industry Sector						
	Economic data	НСР					
	Final energy consumption by branch	Energy balance					
	Transport Sector						
	Stock of vehicles	NARSA - HCP					
	Traffics	НСР					
ETME	Energy consumption by mode	Energy balance MTEDD					
<b>EEK</b>	Energy consumption by type of vehicle	Under exploration					
1 MAY 2023	Specific consumption of vehicles	Under exploration					



# Source of collected data by sector

Data	Source				
Residential Sector					
Number of households	НСР				
Dwellings	HCP				
Appliances	НСР				
Residential energy consumption	Energy balance				
Energy poverty	Under exploration				
Tertiary Sector					
Energy consumption of the tertiary sector Energy balance					
Energy consumption by branch	Under exploration				
Energy consumption by end-use	Under exploration				
Tertiary buildings (surface & construction) Under exploration					
Activity data	НСР				
Agriculture Sector					
Energy consumption	Energy balance/ Under exploration				
Activity data	Ministry of Agriculture - HCP				



### Unavailable data

#### **Macro Data**

- Socioeconomic Data: Exchange rate in Purchase Power Parities
- Primary consumption by type of oil products
- Final consumption by type of oil products
- Climatic data
- GDP without hydrocarbons

### **Industry Sector**

- Energy consumption by type of hydrocarbures
- Physical production (Steel, Cement...)
- Wood industry
- Phosphate / Cement / Steel / Automotive industries

### **Transport Sector**

- Car stocks by fuel type / Commercial vehicles / Buses / Trucks
- Sales of cars / light duty vehicles / Buses / Trucks
- Annual distance travelled by vehicle type
- Passengers traffic in bus, air and water
- Energy consumption by road transport and by oil product type (gasoline, diesel, LPG...)
- Energy consumption by water transport





### Unavailable data

#### **Residential Sector**

- Dwellings by type and use
- Dwellings by cooking fuel
- Floor area of dwellings
- Appliances (electrical appliancess, Lamps, Solar water heater, Heat pump...)
- Specific consumption of electrical appliances
- Energy consumption for heating, hot water, cooking, air conditioning
- Electricity consumption for specific uses
- Number of unpaid energy bills

### **Tertiary Sector**

- Energy consumption of public and commercial sectors
- Energy consumption by branch (Public offices/administrations, private offices, health sector, education...)
- Energy consumption by end-use (heating, air cooling, lighting, others...)
- Tertiary buildings (surface et construction)
- Activity data: Employment, VA, PL, RE

### **Agriculture Sector**

- Energy consumption (forestry, fishing)
- Pumping electricity consumption, pumping oil consumption, diesel for tractors
- Activity data: Number of pumps, tractors, fishing vessels...





# **Difficulties**

Unavailability of data

Data Discontinuity

Variety of information sources

Inconsistencies between some collected data









# Thank you for your attention!

For any inquires or comments, please don't hesitate to contact us

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