# "In The Name Of Allah, The Most Merciful and Beneficial"





# International Workshop on Energy Efficiency and Renewable Statistics from 23-25 May 2018 in Beijing, China.

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#### Introduction

 After independence of Pakistan, Central Statistical Office (CSO) was setup by the Government of Pakistan in 1950 as an attached department of Economic Affairs Division. The Division was reorganized in 1981 and its technical wing (the then CSO) was converted into Federal Bureau of Statistics (FBS) as one of its attached departments. As a step forward Government of Pakistan has established Pakistan Bureau of Statistics, by merging Federal Bureau of Statistics, the Population Census Organization, The Agriculture Census Organization and the Technical wing of Statistics Division.



Energy & Mining Statistics Section was established in early seventies in order to cover the activities of energy & mining sector. In Energy sector the electricity generation data from all the public & private enterprises including independent power producers (IPPs) are collected, integrated & then supplied for PBS publications and other National & International agencies. The data is collected from provincial Directorates of Mines & minerals.

Electricity generation data is collected from WAPDA, KESC, KANUPP, CHASNUPP & Pakistan steel and independent power producers (IPPs).

#### Renewable Energy Resources



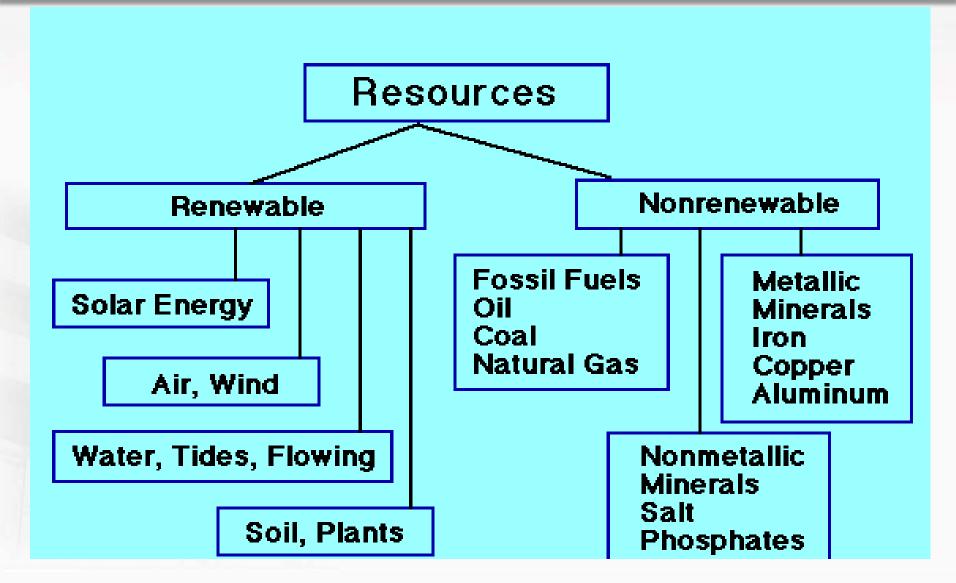
 The energy resources which cannot be exhausted and can be used again and again are called renewable energy resources. For example solar energy, wind energy, tidal.

### Renewable vs Non-renewable Resources



- The renewable energy resources can be depleted and used again and again. But the non-renewable resources are limited in number and can be depleted one day.
- The carbon emission in renewable energy resources are very low and prevent global warming. In non renewable resources the carbon emission is large and contributes in global warming.
- The renewable resources are cheaper and present in unlimited quantity but the non- renewable resources are costlier and present in limited quantity.
- The life of renewable resources is infinite. In case of non-renewable resources the life is finite.
- The maintenance cost for the power plant of renewable energy resources is low but it is high in the case of non-renewable energy resources.
- Solar energy, wind energy, tidal energy and geothermal energy are called as renewable resources. Coal petroleum, natural gas, are called nonrenewable resources.





#### Activities/Goals/Targets and Scope



	Name of Activity	Period
1.	Collection of Mineral Production Data from Provincial Directorates of Mines and Minerals	Thorough out the Year
2.	Collection of Oil and Gas Production data from Petroleum Concessions, Ministry of Petroleum	Thorough out the Year
3.	Electricity Generated Data from respective agencies i.e. WAPDA, KESC, Pakistan Atomic Energy Commission, Pakistan Steel and Independent Power Plants (IPPs)	Thorough out the Year

#### **Supply of Data**



S.No.	Name of Activity	Period
1.	Monthly Bulletin of Statistics	Thorough out the Year
2.	Statistical Year Book	Thorough out the Year
3.	Statistical Pocket Book	Thorough out the Year
4.	State Bank of Pakistan	Thorough out the Year
5.	Pakistan Economic Survey	Thorough out the Year
6.	Budget Speech	Thorough out the Year
7.	UN Monthly Bulletin of Statistics	Thorough out the Year
8.	Statistical Indicators for Asia and the Pacific	Thorough out the Year
9.	National & International Agencies (as and when required)	Thorough out the Year

#### **Energy and Mining Statistics**



#### Electricity

Monthly Electricity Generation data are collected from public sector (WAPDA, KANUPP, CHASNUP & Pakistan Steel etc.)

Data also collected from Private sector (KAPCO & HUBCO) and other about 59 Independent Power Producer (IPPs)

#### Mining

Monthly Mineral production Data is collected from Provincial Directorates of Mines and Mineral as well as from Mineral Directorate FATA

Crude Oil and Natural Gas production Data are collected from Directorate General of Petroleum Concession, Ministry of Petroleum and Natural Resources

# GROWTH OF MINING AND QUARRYING INDUSTRIES FOR JULY- DEC 2016 OVER JULY-DEC 2015



Main Mineral	Indices for July-December		% Changes
	2016*	2015	
Coal	2.82	2.44	-0.13
Crude Oil	28.76	29.42	-0.02
Natural Gas	71.34	72.77	-0.02
Lime Stone	17.86	18.41	-0.03
Over all Index	124.43	126.78	-0.01

# GROWTH OF ELECTRICITY GENERATION ESTABLISHMENTS FOR JULY- DEC 2016 OVER JULY-DEC 2015



Source	Electricity Generation (in MW) for July- December		% Changes
	2016*	2015	
Nuclear	2715130	1766720	53.7
Hydel	19598101	19474085	0.6
Thermal	33618929	33540768	0.2
Alternate	756018	756018	0
Total	56688178	55537591	2.02

