FACULTY OF ENGINEERING AND TECHNOLOGY

Lecture- 9

Energy Resources-Part 1

Dr. Swati Sachdev,
Assistant Professor,
Dept. of Applied Sciences and Humanities

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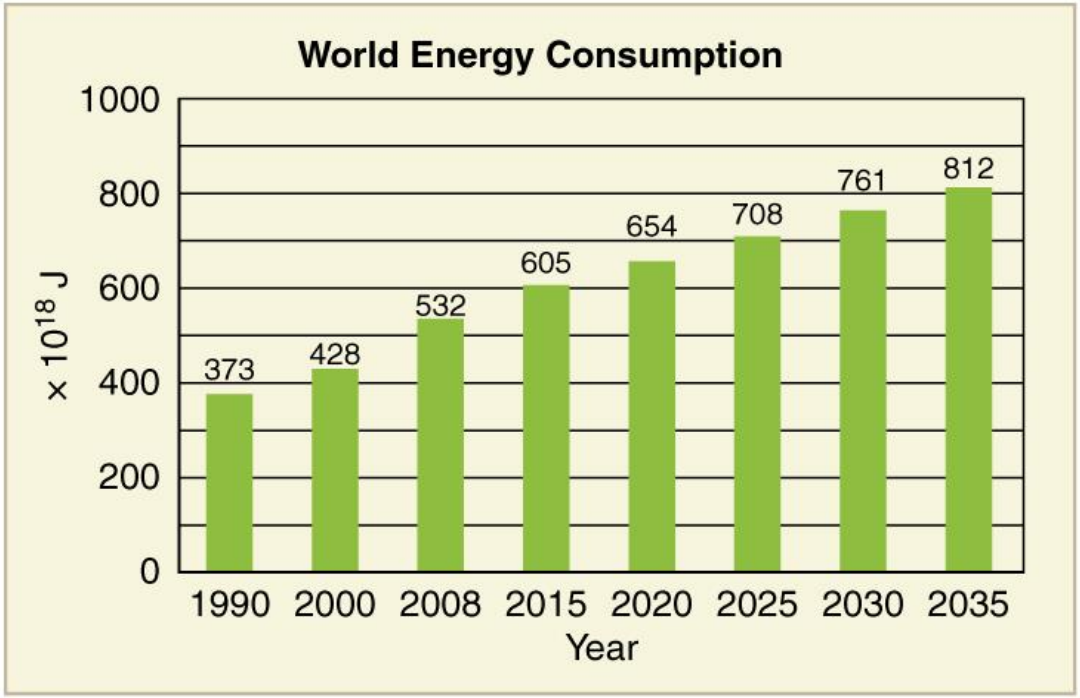
Energy resources: Growing energy need

- ✓ Energy consumption of a nation is usually considered as an index of its development as all developmental activities such as industries, agriculture, mining, construction, transportation, cooling, heating, cooking, depends on energy.

- ✓ Power generation and energy consumption are crucial to economic development as economy of any nation depends upon availability of energy resources.

- ✓ With the increase in population, demand for energy has been increased in past several decades and it has been anticipate that global energy demand will increase by 55% between 2005 and 2030.

- ✓ Due to exponential increase in demand, world is facing energy crises.
- ✓ Fossil fuel is the dominant energy resource that fulfil most of the world's energy demand. Fossil fuel is a non-renewable resource and cannot last for long.
- ✓ Therefore exploitation of alternative resources that posses everlasting potential such as solar energy, are considered as promising strategy.



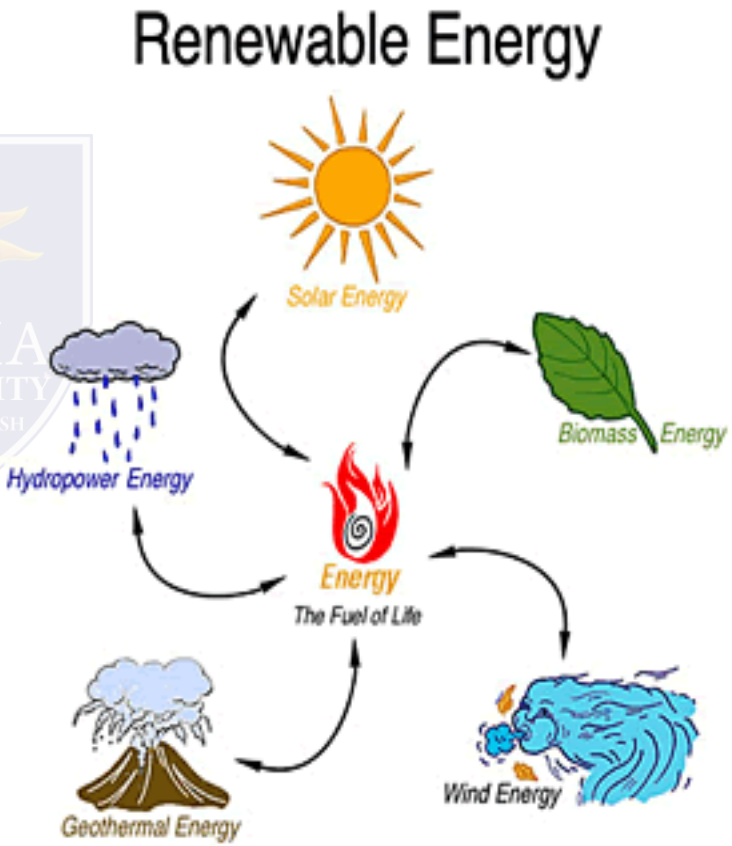
Sources: http://ecoursesonline.iasri.res.in/mod/page/view.php?id=4535; Perspective in Environmental Studies by Anubha Kaushik and C. P. Kaushik; https://images.app.goo.gl/skjgSkE4jW8eWXm16

Renewable and non-renewable energy

Renewable energy is the energy which is obtained from the resources that are continuously replenished by natural processes at a rate equal to or greater than the rate at which they are consumed.

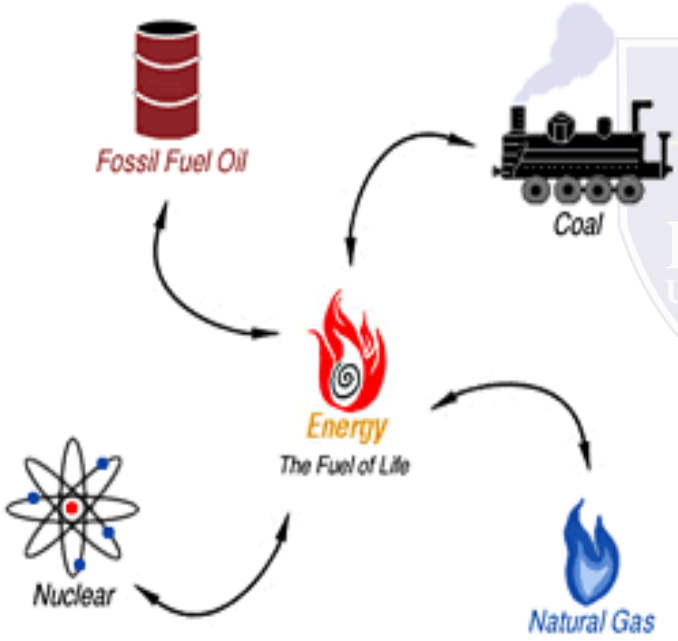
These energy resources cannot be exhausted easily and can be generated constantly, therefore can be used again and again.

E.g. ***solar energy, wind energy, tidal energy, biomass energy and geothermal energy***, etc.



Sources: https://images.app.goo.gl/HN31hMDpMLaDKwQz8

Non-Renewable Energy



Non-renewable energy is generated from non-renewable resources that once depleted cannot be produced at the speed which can sustain its consumption rate.

They are formed from decaying matter over hundreds of years.

Some common examples of conventional sources of energy include ***coal, petroleum, natural gas, and nuclear energy***.

Sources: https://images.app.goo.gl/HN31hMDpMLaDKwQz8


THANK YOU :)