

# **NON-RENEWABLE RESOURCES**

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1. Oil
2. Natural gas
3. Coal
4. Nuclear resources

# OIL

- **Liquid petroleum -crude oil- is the only nonrenewable resource in fluid form.**
- **A fossil fuel that is being used up faster than new reserves are discovered, the oil supply may only last through the middle of this century.**
- **Industrial nations, with the U.S. far in the lead, are the biggest consumers of crude oil.**
- **Gasoline, heating oil, and diesel fuel are the primary uses of the resource, although manufacturers utilize oil as the base for such products as plastics and industrial chemicals.**

# NATURAL GAS

- **Natural gas** is a fossil fuel formed when layers of buried plants, gases, and animals are exposed to intense heat and pressure over thousands of years.
- The energy that the plants originally obtained from the sun is stored in the form of chemical bonds in natural gas.
- It is primarily composed of methane, but contains ethane, propane and butane as well.
- Once drillers extract natural gas, processing plants remove the propane and butane for use as liquefied petroleum gas (LPG), a household and industrial fuel.
- According to the current usage statistics and the volume of world reserves, the supply of natural gas should last another century.

# COAL

- **Coal, which is a primary resource of energy in India, is the product of millions of years of pressure on original organic matter from plants buried underground.**
- **It is a combustible black or brownish-black sedimentary rock usually occurring in rock strata in layers or veins called **coal beds** or **coal seams**.**
- **Anthracite, the purest form of coal, contains about 94 - 95% of carbon.**
- **At the power plant, coal is commonly burned in a boiler to produce steam. The steam is run through a turbine to generate electricity.**
- **The global supply of coal, given the current rate at which it is used, should last at least two more centuries.**

# NUCLEAR ENERGY

- Nuclear power, or nuclear energy, is the use of exothermic nuclear processes, to generate useful heat and electricity.
- The term includes nuclear fission, nuclear decay and nuclear fusion.
- Presently the nuclear fission of elements in the actinide series of the periodic table produce the vast majority of nuclear energy in the direct service of humankind.
- In nuclear fission, neutrons smash into the nucleus of Uranium atoms and release energy in the form of heat. Water is converted to steam by this heat and it is used to drive the turbines.
- Nuclear (fission) power stations, excluding the contribution from naval nuclear fission reactors, provided about 5.7% of the world's energy and 13% of the world's electricity in 2012.

## **Steps to be taken for conservation of natural resources**

- Use various resources only when needed.
- Avoid the wastage of resources.
- Avoid the use of material from wild life sources.
- Use energy efficient electrical appliances.
- Use pressure cooker for cooking which saves 75% of the LPG used in homes.
- Old vehicles should not be used as they are less fuel-efficient and also cause pollution.
- Utilize renewable energy sources as much as possible. Encourage use of solar cooker, pump etc
- We should recycle the waste and waste water for agriculture purposes.