

**Chapter 6:** Study Notes: WISE USE OF OUR RESOURCES

I) Effects of Human Activities on Our Resources:

- **Natural resource:** is any part of the natural environment used by humans for their benefit
- ex. soil, water, crops, wildlife, gas, oil, minerals; wilderness recreation areas; wood pulp; coal;
- **renewable resource:** a natural resource that is replaced or recycled by natural processes.
- ex. plants, animals, food crops, sunlight, soil
  
- **nonrenewable resource:** available only in limited amounts and is not replaced/recycled by natural processes.
- ex. metals, topsoil
- **fossil fuels:** substances made up of the remains of organisms that have been buried underground for millions of years
  
- **extinction:** is the disappearance of a species when the last of its members dies
- result of human actions; destruction of natural habitats; hunting; building of cities; housing developments
- **threatened species:** when the population of a species begins to decline rapidly
- ex. African elephants;
  
- **endangered species:** when its numbers become so low that extinction is possible
- ex. black rhinoceros

II) Maintaining the Natural Balance:

- **pollution:** is the contamination of any part of the environment (air, water, land) by the excess waste materials
- air pollution from: volcanoes, forest fires; cars, burning of fossil fuels.
- **particulates:** the solid particles of soot that can harm living things directly / change the environment
- **smog:** is a form of air pollution found in cities; made of particulates, SO<sub>2</sub> plus
  
- acid precipitation: is rain / snow that is more acidic than unpolluted rainwater  
Which has a pH of 5.6 – 5.7; hence, if less than 5.6, is considered acid rain
  
- effects: leeches minerals from the soil; disrupts lake ecosystems
- **ozone depletion:** layer that prevents living organisms from receiving lethal doses of ultraviolet radiation
- ozone (O<sub>3</sub>) is part of the stratosphere

- ozone destruction is caused by CFC (chlorofluorocarbons) used as coolants in refrigerators, air conditioners
- **greenhouse effect**: process of heat retention by atmospheric gases, most notably, carbon dioxide
- water pollution results from: fertilizer from runoff; heat from factories that destroy habitats in the streams & lakes
- **groundwater pollution**: groundwater is freshwater found underground; agricultural runoff; pollutants leaking from waste material; industrial chemical; excessive use of groundwater for irrigation
  
- **land pollution**: from garbage; trash or solid waste = cans, bottles, paper, plastic, metals, dirt
- **biodegradable wastes**: wood products, food, animal wastes, dead leaves ... that can be broken down by natural processes
- **nonbiodegradable**: materials that can persist in the environment for hundreds of years
  
- **preservation act**: of keeping an area or organism from harm or destruction.  
Ex. by setting aside parks, refuges, conservation areas
- **conservation**: is the planned management of a natural area to prevent exploitation or destruction