

B.A/B.SC. Fourth Semester

Environmental Studies

Nuclear Hazards: Nuclear hazard is the result of radioactive pollution. Radioactivity is the property of some elements (uranium, thorium, radium etc) which can emit radiation. Radioactive pollution is a special type of physical pollution of environmental components with radioactive material.

There are two **types** of radioactive pollution- **Natural radiation** like cosmic rays coming to the earth from outer space, and all terrestrial radiation from all the radioactive elements. The other type is **manmade radiation** which includes the radiations coming from all the human activities like atomic explosion, hospital sectors, scientific research, agricultural sector etc.

The **effects** of radiation are may be genetic and somatic. **Genetic** damages takes place due to mutations occurred in DNA and it make changes in genes and chromosomes. Such type of changes in DNA may be hereditary and can affect future generations. **Somatic** effects of radiation are the damage in body cells which shows diseases like cancer, eye cataracts, skin irritation etc.

To **control** nuclear pollution, we have to control radiation at source. Leakage of radioactive material from nuclear reactors, industries and hospitals should be totally stopped. Radioactive wastes should be properly disposed off. Preventive measures should be taken and safety measures should be adopted against accidental leakage in industries.

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