1- Radioactive Pollution

Is the deposition of, or presence of radioactive substances on surfaces or within solids, liquids, or gases (including the human body), which produces such harmful effects as ionizing radiation (namely alpha, beta, and gamma rays) and free neutrons.

2- Sources of radioactive pollution

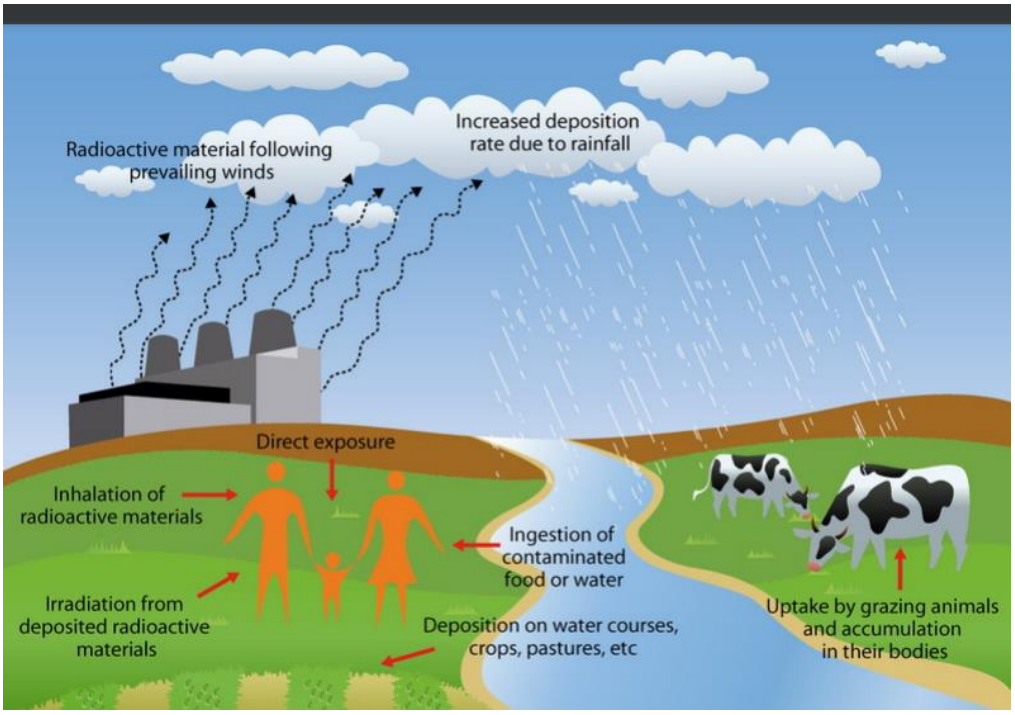
The sources of radioactive pollution can be classified into two groups: natural and man-made.

a) A variety of radionuclides occur naturally in the environment. Elements like uranium and thorium, K-40 and C-14

b) Nuclear industry .

- Nuclear Accidents from nuclear energy generation plants, accidents like the Fukushima Daiichi nuclear disaster (2011)
- The Use of Nuclear Weapons, ec, Hiroshima and Nagasaki, 1945 have been seen to date with children born with problems such as mental obstruction.

Nuclear energy generation plants



Pathway of radioactive elements to the environment.

- Use of Radioisotopes, Radioisotopes are used to make detectors and in other industrial activities. Since most of the raw sewage is untreated before release, once released, the isotope combines with other compounds and elements present in water to go to ecosystem.
- Mining, Radium and Uranium, for instance, are naturally occurring in the environment and are equally radioactive.
- Spillage of Radioactive Chemicals
- Tests on Radiation, Chemotherapy, cancer therapy.

3- Prevent of radioactive pollution

- Suitable Method of Disposing of Radioactive Waste
- Proper Labelling
- Prohibition of Nuclear Tests
- Alternative Energy Sources
- Proper Storage

4- Control of radioactive pollution

Since radiation cannot be seen, smelled, felt, or tasted, people at the site of an incident will not know whether radioactive materials were involved. You can take the following steps to limit contamination:

- Get out of the immediate area quickly. Go inside the nearest safe building or to an area.
- Remove the outer layer of your clothing. If radioactive material is on your clothes, getting it away from you will reduce the external contamination and decrease the risk of internal contamination. It

will also reduce the length of time that you are exposed to radiation.

- If possible, place the clothing in a plastic bag or leave it in an out-of-the-way area, such as the corner of a room. Keep people away from it to reduce their exposure to radiation. Keep cuts and abrasions covered when handling contaminated items to avoid getting radioactive material in them.
- Wash all of the exposed parts of your body using lots of soap and warm water to remove contamination. This process is called decontamination.
- After authorities determine that internal contamination may have occurred, you may be able to take medication to reduce the radioactive material in your body.

5- Effects of Radioactive Pollution

1. Genetic mutations
2. Cell destruction
3. Burns, skin cancer.
4. Diseases, Cancer , leukemia, anemia
5. Soil infertility
6. Effects on plants
7. Effects on wildlife
8. Effects on marine life