



7. Discuss the role of women and communities in protection and conservation of forests.

Ans: Amrita Bishnoi Wildlife protection project The Bishnoi community is known for its peaceful coexistence with nature. It was in 1730 AD. Amrita Devi protested against king's men's attempt to cut trees as it was prohibited in Bishnoi religion. It was a party of Maharaja Abhay Singhji, Ruler of Marwar (Jodhpur) state who wanted to fell green khejdali trees. Amrita Devi and her three daughters & more than 360 of other Bishnois lost their lives in saving trees & became martyrs. Later 'Chipko' movement was started by Sunderlal Bahuguna and others to prevent cutting of trees. The people showed enormous bravery in protecting trees from the axe of contractors by hugging them.

8. What measures, as an individual, would you take to reduce environmental pollution?

Ans: To reduce environmental pollution we should take following measures:

- (i) Reducing use of CFC.
- (ii) Disposing off waste safely.
- (iii) Reducing use of polythene.
- (iv) Not disposing off waste in water bodies.
- (v) Making automobiles pollution free.
- (iv) Prevention of noise pollution by using fire crackers/TV/musical instruments at permissible limits.
- (vii) Tree plantation in school, around residence.

9. Discuss briefly the following:

- (a) Radioactive wastes
- (b) Defunct ships and e-wastes
- (c) Municipal solid wastes

Ans:

(a) Radioactive waste: Radioactive waste include materials that are radioactive & for which there is no further practical use. These are generated by nuclear reactor, nuclear fallout, man made (refining and mining of platinum and thorium), natural radioactive waste and release of radiation in radiation therapy.

Increased risk of cancer, birth defects & infertility are few harmful effects caused by nuclear waste. So, nuclear waste is an extremely potent pollutant.

(b) Defunct ships & e-wastes: The dismantling of defunct ship is a technically complex process, which is potentially harmful to the environment & human health. Defunct ships contain toxicants like asbestos, mercury, etc. The workers breaking the ships are not suitably protected and are exposed to toxic chemicals. The coastal areas in the vicinity of the ship-breaking yard also becomes polluted. At the international level, it is accepted that there is uncertainty about the relevant controls for the dismantling of such vessels & there is an urgent need to establish a specific enforceable control framework.

Electronic waste comprised of irreparable computer and other electronic goods, generated by developed countries.

It is valuable source of secondary raw materials, if treated properly, however if not treated properly it is the major source of toxins.

Eventually recycling is the only solution for the treatment of e-

wastes provided it is carried out in an environment friendly manner.
(c) Municipal solid wastes: These are commonly known as trash or garbage. It consists of everyday items such as product packaging, furniture, clothing, bottles, food scraps, newspapers, appliances, paints, batteries etc. Source reduction, recycling and composting are several municipal solid waste management practices. Source reduction involves altering the design, manufacture or use of products & materials to reduce the amount and toxicity of what gets thrown away. Recycling diverts items such as paper, glass, plastic & metals into new products. Composting decomposes organic waste such as food scraps & yard trimmings with micro-organisms, producing a humus-like substance.

10. What initiatives were taken for reducing vehicular air pollution in Delhi? Has air quality improved in Delhi?

Ans: The initiatives were taken for reducing vehicular air pollution in Delhi are :-

- (i) Introduction of CNG
- (ii) Enforcement of pollution control law
- (iii) Introduction of green zones
- (iv) Use of unleaded fuels
- (v) Replacement of old vehicle with new one. The result is that the air quality of Delhi has improved considerably with a substantial fall in pollutant gases.
- (vi) Use of catalytic converters in vehicles.
- (vii) Application of Euro II norms for vehicle.

11. Discuss briefly the following:

- (a) Greenhouse gases
- (b) Catalytic converter
- (c) Ultraviolet B

Ans:

(a) Greenhouse gases: Gases that trap the heat of the sun in the earth's atmosphere increasing atmospheric temperature effect are called greenhouse gases. CO_2 , CH_4 , N_2O and CFC, cause greenhouse. In the absence of greenhouse gases, the temperature of earth would go down to -18°C . The net effect of higher GHGs will be disastrous, (i) Melting of polar ice caps and mountain snow caps resulting in rising of sea level threatening submergence of many islands and coastal areas. Odd climate changes like El Nino. Increased floods and drought.

(b) Catalytic converter : Catalytic converter 'are used to reduce emission of poisonous gases like nitrogen oxides, carbon monoxide & un reacted hydrocarbon in automotive emission. It is made of platinum, palladium and rhodium and is used as catalyst. It converts unburnt hydrocarbons into CO_2 . The only precaution required is not to use gasoline having lead as lead inactivates the catalysts of the converter.

(c) Ultraviolet B : Ultraviolet B is one of the three types of invisible light rays given off by the sun. Ultraviolet B penetrates the ozone layer in attenuated form & reaches earths. This is more over equator than poles due to thinning of ozone shield over equator. It causes skin cancer, reduce rate of photosynthesis in phytoplanktons, reduces diversity of aquatic ecosystem.

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