3. DEGRADATION OF NATURAL ENVIRONMENT

- Overexploitation of natural resources by humans has many consequences seen in nature in the form of soil erosion, biodiversity and pollution of air, water and land.
- Uncontrolled human activities caused damage to the environment.



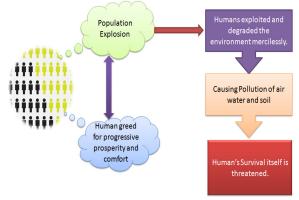
• Forest has been cut down for use by humans for converting into cultivable fields, building houses, making shelters and furniture or fuel.



• Excessive burning of fossils fuels release toxic gases in the air. This polluted air adversely effects human health and plant life both.



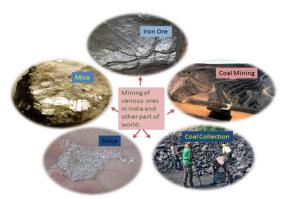
- Acid water from mines, toxic waste of industries, chemical fertilizers and pesticides from agricultural fields have polluted rivers and other water bodies.
- Progress in medicine prevented deaths due to injury and epidemic diseases,
- Average longevity of humans has increased due to early diagnosis of diseases are some of the factors leading to rise in population.
- With growing population, requirement for space, shelter, and commodities have exerted enormous pressure on the environment. To provide for these, land use has change dramatically.



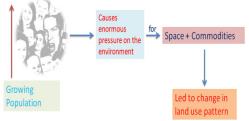
- Excessive use of fossil fuel in transportation causing atmospheric pollution.
- Rapid industrialization has also led to pollution from dumping of industrial effluents into rivers and other water bodies. Rapid industrialization has caused much damage to the environment.
- Over populated areas result in congested roads and slum formation which lack basic amenities like drinking water, drainage, waste disposal, create potential conditions for public health problems including spread of epidemic diseases.
- Forests are nature's major processors of solar energy. Cutting of trees in forests is called deforestation
- Forests have been cleared for the various reasons such as developmental activities are the major consequences of deforestation.



- Vegetation and soil are removed to get access to mineral deposits. The flora and fauna present in the area is lost due to excessive mining.
- Dumping of mining waste not only occupies large land area but the waste dumps also become a source of soil erosion.
- Excessive mining may lead to land subsidence and may also cause landslides. The landscape too is spoilt.



• Increasing human population large scale manufacture of essential goods is necessary.



- Industrialization also led to environmental degradation. Natural resources used as raw materials by industry are depleting rapidly.
- Industries generate lot of toxic gases, and liquid effluents leading to environmental degradation.

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- Industries generate large amount of waste, which pile up in the environment. Disposal of waste not only needs land but also pollutes the environment and poses hazards to human health.
- Increase in food production to achieve self sufficiency is an important objective.
- Intensive agriculture unfortunately, may lead to serious damage to environment.
- Forests have been cleared transformed into farmlands for growing food crops.
- Excessive irrigation and poor drainage causes water logging and kill plants.
- Increased use of synthetic fertilizers causes to serious environmental problems
- Pile up of agro industrial generated waste also responsible for environmental degradation.
- High yielding varieties of food crops replaced various traditional crop varieties.
- The rural-urban migration is also partly due to population growth and poverty in the village:
- Urbanization means permanent settlement of people in cities and leads degradation as many job opportunities by industrialization



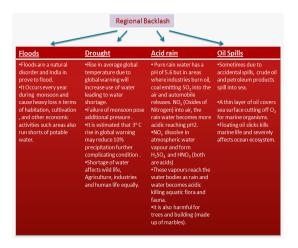
• The consequences of depleting natural resources and environmental pollution are looking the face of humans.

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- Various developmental activities caused serious environmental degradation at local, regional and global level.
- Local level backlash

	Local Environm	ental Backlash	1
Salivation of irrigated soil.	utrophication	Minamata Disease	Extinction of Wildlife
Over irrigation results in safa accumulation in the soil as water evaporate leaving dissolved safts in soil. Progressively if makes the soil alkaline and unfit for cultivation.	Action of aerobic bacteria on organic wastes entering water body releases plant nutrient like phosphates and nitrates. These promote algae growth called algal bloom is called entrophication. Algae consume all oxygen and aquatic animals die due to lack of oxygen.	 Plastic, caustic soda, fingicides and pesticide factories release mercury along with other effluents in the nearby water bodies. Mercury enters food chain through bacteria -> alga e-> fish -> humans. Human consuming fish get poisoned by mercury and it became fintal in many cases. It was first reported in Minamata and thus the name of the 	The number of tigers and lions has dwindled. The great Indian Bustard in endangered and the list of threatened plants and animals is ever increasing. Bombay duck a favourite fish found in abundance in Kalu River in Mumbai once lost forever. This is due to pollution of the river by industrial waste.

• Regional level backlash



- Global level backlash
 Clobal Backlash
 <
- Human survival itself is threatened due to the damage done to the environment by human themselves.



- 1. Major part of water loss by plants is in the form of :
 - a. Respiration
 - b. Transpiration
 - c. Guttation
 - d. Photosynthesis
- 2. Reasons of rapid growth in population are:
 - a. Advancement in health services
 - b. Enough food
 - c. Increase in longevity rate
 - d. All the above
- 3. How does mining impact into environment?
 - a. Loss of vegetation
 - b. Depletion of minerals
 - c. Dumping of debris
 - d. Land subsidence
 - e. All the above
- 4. Multicropping system means:
 - a. Growing food crops only
 - b. Growing firewood and fodder
 - c. Growing of food crops, food and firewood crops together.
 - d. Growing only one kind of crop

Ans:

Ques-5 Which one is not local environmental backlash?

- a. Salination of irrigated soil
- b. Oil spills
- c. Eutrophication
- d. Extinction of wildlife species

Ans: 1.b 2.d 3.e 4.c 5.b

Stretch Yourself

- 1. Why human beings are so dependent upon the environment?
- Classify following environmental backlashes into local, regional and global environmental backlash a. Flood, b. Drought, c. Salination of irrigated soil, d. Global warming, e. Oil spill
- f. Extinction of wildlife species, g. Ozone layer depletion
- h. collapse of marine fisheries, i. Eutrofication
- 3. What is the relation between urbanization and environment?



Test Yourself

- 1. Mention the consequences of industrialization on biotic and abiotic components of the environment
- 2. Discuss the impact of modernization of agriculture on environment.
- 3. What are the major consequences of mining?
- 4. Mention three main causes of human population explosion.