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Environmental Problems And Roal of Education

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INTRODUCTION

Present day, problems of varied nature in human life are directly or indirectly very much related to environment. Today, environment has become survival issue. These days environment has been contributing very much to socio-economic, political and other similar policies of the world. It is so common to find references of environment in magazines, weeklies and daily news papers. Really Environment plays an important role in human welfare. Environment has been defined as the "sum total of all condition and influences that affect the development and life of organisms." The term environment is a part of our day to day life and as such human beings play a great role in preserving and improving the environment for the sake of a better future.

India today is one of the first ten industrialised countries in the world. Today we have a good industrial infrastructure in core industries like metals, chemicals, petroleum, fertilizers, food etc. What has come out of these? Pesticides, detergents, plastics, solvents, fuels, paints, dyes, food additives etc are some examples. Due to progress in atomic energy, there has also been an increase in radioactivity. More over there a number of industrial effluents and emissions, particularly poisonous gases in the atmosphere. Mining activities also release lot of solids wastes. These are all become an important contributors to environmental pollution. Our environment is constantly changing. There is no denying that. However, as our environment changes, so does the need to become increasingly aware of the problems that surround it. Global warming has become an undisputed fact about our current livelihoods; our planet is warming up and we are definitely part of the problem. Our planet is poised at the brink of a severe environmental crisis. Current environmental problems make us vulnerable to disasters and tragedies; we are in a state of planetary emergency, with environmental problems piling up high around us. Unless we address the various issues prudently and seriously we are surely doomed for disaster. Current environmental problems urgent attention.

Pollution: pollution is any undesirable change in the physical, chemical or biological characteristics of air, water and soil that may harmfully affect the life or create a potential health hazard to any living organism. Pollution is thus direct or indirect change in any component of the biosphere that is harmful to the living components.

Pollutants: Any substance which causes pollution is called a pollutant. A pollutant may thus include any chemical or geo chemical substance, biotic component or its product or physical factor that is released by human beings in the environment in such a way that may have harmful, adverse or unpleasant effect.

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A pollutant has also been defined as “solid, liquid or gaseous substance present in such concentration may be or tend to be injurious to the environment.”

Environmental pollutants

The pollutants which pollute our air, water, land are as follow:

- 1) Deposited matter- soot, smoke, tar, dust, grit etc.
- 2) Gases – oxides of nitrogen (NO, NO₂), Sulphur (SO₂), carbon monoxide, halogens.
- 3) Acid droplets – Sulphuric acid, nitric acid etc.
- 4) Fluorides
- 5) Metals – mercury, lead, iron, zinc, tin, cadmium, nickel, chromium etc.
- 6) Complex organic substances – benzene, ether. Acetic acid, benzpyrenes etc.
- 7) Solid wastes –
- 8) Radioactive wastes
- 9) Noise

Major current Environmental problems

Types of Pollution

1. *Pollution: Pollution of air, water and soil require millions of years to recoup. Industry and motor vehicle exhaust are the number one pollutants. Heavy metals, nitrates and plastic are toxins responsible for pollution. While water pollution is caused by oil spill, acid rain, urban runoff; air pollution is caused by various gases and toxins released by industries and factories and combustion of fossil fuels; soil pollution is majorly caused by industrial waste that deprives soil from essential nutrients.*
2. *Global Warming: Climate changes like global warming is the result of human practices like emission of Green house gases. Global warming leads to rising temperatures of the oceans and the earth surface melting of polar ice caps rise in sea levels and also unnatural patterns of precipitation such as flash floods, excessive snow or desertification.*
3. *Over population; the population of the planet is reaching unsustainable levels as it faces shortage of resources like water, fuel and food. Population explosion in less developed and developing countries is straining the already scarce resources. Intensive agriculture practiced to produce food damaged the environment through use of chemical fertilizer. Pesticides and insecticides. Over population is one of the crucial current environmental problems.*
4. *Natural Resource Depletion: Natural resource depletion is another crucial current environmental problem. Fossil fuel consumption result in emission of Green house gases, which is responsible for global warming and climate change. Globally, people are taking efforts to shift to renewable sources of energy like solar, wind, biogas and geothermal energy. The cost of installing the infra structure and maintaining these sources has plummeted in the recent years.*

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5. *Waste Disposal: The over consumption of resources and creation of plastics are creating a global crisis of waste disposal. Developed countries are notorious for producing an excessive amount of waste or garbage and dumping their waste in the oceans and less developed countries. Nuclear waste disposal has tremendous health hazards associated with it. Plastic, fast food, packaging and cheap electronic wastes threaten the well being of humans. Waste disposal is one of urgent current environmental problem.*

6. *Climate Change: Climate change is yet another environmental problem that has surfaced in last couple of decades. It occurs due to rise in global warming which occurs due to increase in temperature of atmosphere by burning of fossil fuels and release of harmful gases by industries. Climate change has various harmful effects but not limited to melting of polar ice, change in seasons, occurrence of new diseases, frequent occurrence of floods and change in overall weather scenario.*

7. *Ocean Acidification: It is a direct impact of excessive production of CO₂. 25% of CO₂ produced by humans. The ocean acidity has increased by the last 250 years but by 2100, it may shoot up by 150%. The main impact is on shellfish and plankton in the same way as human osteoporosis*

8. *Acid Rain: Acid rain occurs due to the presence of certain pollutants in the atmosphere. Acid rain can be caused due to combustion of fossil fuels or erupting volcanoes or rotting vegetation which release sulfur dioxide and nitrogen oxides into the atmosphere. Acid rain is a known environmental problem that can have serious effect on human health, wildlife and aquatic species.*

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10. *Water Pollution: Clean drinking water is becoming a rare commodity. Water is becoming an economic and political issue as the human population fights for this resource. One of the options suggested is using the process of desalinization. Industries development is filling our rivers seas and oceans with toxic pollutants which are a major threat to human health.*

IMPORTANCE OF ENVIRONMENTAL EDUCATION

One of the very important priorities of the present Union Government is education, a subject which for some reasons has been almost neglected. The country has already accepted "The need to cultivate sound, well organized interest in environment and incorporate environmental education at all levels" Tiwari Committee Report, 1980. In the occasion of the first international conference on environmental education held at New Delhi in 1980, Mrs. Indira Gandhi observed that environmental education is to help "arouse social consciousness and make community aware of the fact the good of the individual and that of the community are both harmed by ecological disruption" the thoughts of Isho upnishad (section 3) represent ideal concepts of eco conservation strategy. Most people recognize the

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urgent need for environmental education, but only some have clear ideas about what needs to be done and very few have either the actual experience or the knowledge about the courses that need to be taught. The chief objective of environmental education is that individual and social groups should acquire awareness and knowledge, develop attitudes, skills and abilities and participate in solving real life environmental problems. The perspective should be integrated, interdisciplinary and holistic character.

ROLE OF ENVIRONMENTAL EDUCATION

Nature is common property that resource shared and it is used by everyone. To conserve their natural heritage, people must keep in mind the principle 'think globally, act locally.' nature conservation must become a people's movement. To achieve this purpose, environmental awareness is essential among the public. Environmental education is the process of recognizing values and clarifying concepts in order to develop skills and appreciate interrelatedness among human beings, their culture and bio physical surroundings. Environmental education also entails practice in decision making and self formulating a code of behavior about issues concerning environmental quality.

GOALS OF ENVIRONMENTAL EDUCATION

The goals of environmental education are to develop world population that is aware of and concerned about total environmental and its associated problems and commitment to work individually and collectively towards a solution for current problems and the prevention of new ones. The chief goals of this education in India must be to improve the quality of environment, to create an awareness among people on environmental problems and conservation and to create an atmosphere so that people participate in decision making and develop the capabilities to evaluate the developmental programs.

OBJECTIVES OF ENVIRONMENTAL EDUCATION

The chief objective of environmental education is that individual and social groups should acquire awareness and knowledge, develop attitudes, skills and abilities and participate in solving real life environmental problems. The public live in rural, tribal, slum and urban areas, women and students and teachers in schools, colleges and universities as well as planners, decision and policy makers, program implementers need to be educated about environment.

The objectives of this education are to help social groups and individuals towards (1) awareness (awareness and sensitivity to the total environmental and its allied problems) (2) knowledge (gain verity of experiences and acquire a basic understanding of the environment and its associated problems) (3) attitude (acquire a set of values and feelings of concern for the environment and the motivation for the active participation) (4) skill (To acquire skill for identifying and solving problems) (5) evaluation ability (evaluate environmental measures and education programs in terms of ecological, economic, social, aesthetic and educational factors) (6) participation (to provide an opportunity to be actively involved at levels.

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GUIDING PRINCIPLES FOR ENVIRONMENTAL EDUCATION.

The guiding principles are

- (1) To consider the environment in its totality
- (2) To consider a continuous life process
- (3) To be interdisciplinary in approach
- (4) To emphasize active participation in prevention and solution
- (5) To examine major environmental issues from local, national, regional and international point of view.
- (6) To focus on current, potential environmental situations
- (7) To promote the value and necessity of local, national and international co-operation in the prevention and solution of environment problems.

Conclusion:

The chief concern of environmental education is that individual and social groups should acquire awareness and knowledge, develop attitudes, skills and abilities and participate in solving environmental problems. It is a concern of people on all walks of life. It is to have a new approach to education and to be realistic. The children in the school could be encouraged to have a nature club to have a holistic idea about the wild life. Besides this the formal and non formal education also helps in environmental education. The Chipko movement, the Save Silent Valley campaign, Bishnoi community campaign are all examples of environmental education and awareness programmes. Nature conservation must become people's movement and environmental education must be a priority in all educational innovations.

“There is enough for everyone's need but not for everyone's greed”

Mahatma Gandhi

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