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## ENVIRONMENTAL POLLUTION AND SUSTAINABLE DEVELOPMENT – A COMPREHENSIVE APPROACH

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### Abstract

The common man's perception of environment doesn't seem to communicate the depth and dimension of the term. Environmental science deals with the interactions of the natural habitats, inhabitants and the surrounding environment. The chief concern for environment emerged in a much focused way at the First World Summit at Stockholm, Sweden in 1972. This awareness rapidly took cognizance of the physical cause of environmental deterioration putting biggest threat to human lives. The incidents of Bhopal and Chernobyl opened our eyes to the horridness of chemical reaction causing tremendous environmental pollution. Besides this, widening hole in the ozone layer, the Greenhouse effect, acid rain and radio-active waste disposal pose a serious threat to the survival of all living beings. Pollution and conservation both have come to the forefront of problems during the new millennium of growing industrialisation. Though belated realization on the part of human civilization that the so called high level of economic growth attend by the reach countries specially in the post industrial revolution period is seen to have resulted from an utterly anthropocentric philosophy of development The insatiable greed on the part of the capitalist countries to amass wealth quickly has caused ruthless destruction of nature and unless the path of sustainable eco-friendly development is chartered out and accepted by all, human civilization will suffer a severe survival crisis in coming future. Developing and underdeveloped nations are the worst sufferers of environmental pollution caused by population growth and poverty and also due to the lack of appropriate institutional and technological support to combat pollution. The sustainable and equitable development is only possible by the promotion of conservation of nature as well as mitigating the environmental pollution. Therefore human liberalisation associated with educational programme at all stages should endeavour to contribute towards creation and dissemination of appropriate level of knowledge for maintaining the ecosystem.

**Key Words:** Cognizance, Waste Disposal, Industrialization, Anthropocentric Philosophy, Amass, Ruthless Destruction, Survival Crisis.

### Introduction:

The matters pertaining to environment is a multidisciplinary subject assuming great importance in the present day context. Ecologically, Environment consists of two components – the abiotic and the biotic parts. The former includes physical space, the later comprises of bio-diversity including all biological forms. Ecosystems are normally capable of self-maintenance and self-regulation unless injudicious human intervention jeopardizes the system. The liberalization of world economy since the 80's of the last century has opened the flood gates for establishment of hazardous industries by national as well as multi-national companies raised insatiable greed on the part of the developed countries to amass wealth quickly has caused ruthless destruction of nature and as such unless the path of sustainable development is chartered out and accepted by all, human civilization will destroy itself in the coming years. Therefore, pollution and conservation both have come to the forefront of problems during the new millennium of growing industrialization.

### Pollution and Conservation – The Planetary Crisis:

Generally, population growth and poverty are addressed as the main pollutants<sup>1</sup> in the underdeveloped and undeveloped countries. Our former Prime Minister Ms. Indira Gandhi also mentioned the same at the Stockholm World Summit, 1972. How this population growth affects the entire environment is very much known to all of us. The abiotic part comprises with soil, water and air, i.e., the climate catastrophe is interwoven with many social and environmental crises including oppression, corporate power, hunger, water depletion, bio-diversity loss and deforestation. As the total situation is run by and manipulated by an unhealthy economic system, the

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<sup>1</sup> Most crucially, the line in Indira Gandhi's speech that has made it immortal was missing in the draft in the Haksar archives. She obviously added this between the 9 and 13 June when the speech had to go for printing: "Are not poverty and need the greatest polluters" Maurice Strong—the secretary general of the conference, who was on the podium when Indira Gandhi spoke—wrote in his memoirs in 2001: 'Also at the opening session Prime Minister Gandhi made what was one of the most influential speeches of the entire conference, with its theme that "poverty is the greatest polluter of all".

### "Poverty Is the Greatest Polluter: Remembering Indira Gandhi's Stirring Speech in Stockholm"

An excerpt from Jairam Ramesh's Indira Gandhi: A Life in Nature, which explores Indira Gandhi's deep love for nature and her commitment to environmental causes.

sole aim of which is endless growth and profit. This system concentrates on wealth, power and obscene privilege with the few corporate and national elites are empowered by that very system to exploit people and their livelihoods with impunity.

We must tackle climate change and associated social and environmental crises by taking rapid and bold action to address the common root causes privatization, financialization and commodification of nature and societies coupled with unsustainable production and consumption systems.

On the contrary, conservation in single term is the prevention of wasteful resources. Therefore, conservation's goals include protecting species from extinction, maintaining and restoring habitats, enhancing ecosystem services and protecting the biological diversity. Thus, conservation is a study of the loss of Earth's biological diversities and the ways through which the losses can be prevented. Hence, conservation seeks to protect life's variety at all levels of biological organization. So, conservation may be viewed as a crisis discipline.

### **Background of the Study:**

Pollution of air, water, soil, sound are greater threat to human development. The UN Sustainable Development Goals (SDGs) have a strong focus on reducing environmental pollution. Air pollution is the largest cause of pollution death, responsible for about 6.5 millions of deaths according to the recent study. About 58% of air pollution deaths are caused by ambient particulate matter pollution, emitted by vehicle exhaust, factory and power plants and crop and garbage burning. Unfortunately, many Indian cities are consistently figuring in the top 10 of World's most polluted cities list by the WHO since 2010 despite many serious efforts from the Government and interventions from the Courts. Beijing, Dhaka too had figured high at that list but with the interventions from the courts and their respective Governments those cities have recently moved out of that category. New Delhi, the Capital of India, as well as the neighbouring cities like Bhiwandi, Faridabad, Ghaziabad, Gurgaon and Noida continue to record very high Air Pollution levels. The data generated by the CPCB for Delhi indicates the presence of pollutants in air for most of the days in a year. During the autumn and winter months from October to February the situation becomes worsen.

Water pollution has become a common picture to the cities and townships which are closer to the industrial belts as the chemical dusts and related garbage are drained towards the lake and nearby rivers and as such normal drinking water is contaminated. The recent Ganges Action Plan stands by the above statement. The developed countries have introduced various steps to reduce water contamination but the developed and underdeveloped countries are the worst sufferer of the same. Water pollution—along with drought, inefficiency, and an exploding population—has contributed to a major crisis for fresh water threatening the sources upon which we rely for drinking water and other critical needs. We need to safeguard the supply of water because even though nearly 70 percent of the world is covered by water, only 2.5 percent of it is fresh. And just 1 percent of freshwater is easily accessible, with much of it trapped in remote glaciers and snowfields. United Nations Food and Agriculture Organization estimates 38 percent of the European Union's water bodies are under pressure from agricultural pollution. According to the WHO, at least 2 billion people drink water from sources contaminated by feces.

The United Nations Food and Agricultural Organization states that annually, 75 billion tons of soil, the equivalent of nearly 10 million hectares, which is about 25 million acres, of arable land is lost to erosion, water-logging and salination and another 20 million hectares is abandoned because its soil quality has been degraded.

The Cities and townships are highly suffering from sound pollution due to vehicles and industrial works. The rural areas are not also in safe condition as excessive use of loudspeakers and microphones cause sound pollution which has bad impacts upon human bodies.

### **Objectives of the Study:**

The main objectives of this study are to –

- i. Identify the planetary crises through different types of pollutions with the growing civilisation.
- ii. Identify the causes and reasons behind the pollutions which create severe planetary crisis.
- iii. Focus upon the Population growth which is the main pollutant
- iv. Use education from the very beginning to grip over population growth
- v. Highlight the relationship between human beings and nature to control pollution.

### **Human induced environmental problems:**

Different types of pollution caused by excessive growth of population may be cited as under-

- I. Air pollution occurs when harmful or excessive quantities of substances including the gases, particles and biological molecules are introduced into Earth's atmosphere. Both human activities and natural processes can generate air pollution. Gases like Carbon dioxide, Carbon mono-oxide, Methane, Sulphur dioxide, Nitrous Oxide, Chlorofluorocarbon (CFC), Radon etc. are commonly responsible for generating unhealthy atmosphere surrounding the areas where unplanned industrialization develops. In India it is frequently seen that most of the cities were developed in the closed vicinity of industries. With the rapid growth of population over decades the no. of vehicles small, medium and large have also increased at a high rate and their emitted Carbon mono-oxide gas and various pollutant particles are emitted from different sources and may contain a variety of chemical compounds depending on the sources. Of the different types of particles present in the environment increasing concern has been expressed from the pollution of the metallic particles. The gases emitted from

mixing complexes are also largely responsible for such undesired and unhealthy condition of air causing considerable damages to plants and vegetations. However sufficient data in this regard is yet to be found.

- II. Similarly, to provide sufficient food and water to large number of people creates deterioration of standards of water and its supply. Since 60's of the last century the 'grow more food programme' has caused an increase of water in irrigation works. Pollution came up through unplanned use of fertilizers, pesticides for growth and protecting agricultural products simultaneously. As such supply of drinking water not only has decreased, its quality deteriorated and at the same time different pollutant particles have been contaminated the water bodies widely. The amount of normal rainfall has been decreased due to various atmospheric climatic pollutions and as a result the surface water and groundwater level have been seriously decreased over time.
- III. On the other hand, unplanned ways of cultivation and wide pastoral activities have caused severe degradation of soil. Soil pollution may be defined as soil contamination caused by the presence of xeno-biotic chemicals or other alteration in the natural soil environment. It is typically caused by the use of agricultural chemicals, industrial activities and improper disposal of wastes. Since soil is the thin layer of organic and inorganic materials, so change of contamination appears to be greater through different unplanned activities upon it over decades.
- IV. In recent times with the rapid growth of towns and cities different types of religious, social, political activities have generated unpleasant condition of the surroundings causing sound pollution may be viewed as an unpleasant condition of our environment which irritates common lives directly. The same may be addressed for sight pollution which disorders human organs and affects social values too.
- V. However we shouldn't forget the rapid growth of population is the main source of all pollutions. Population growth creates severe impact upon the environment when the balance of supply and demand of means goes beyond the equilibrium. Increasing an unplanned urbanisation accompanied by high concentration of the urban population in bigger cities has not only posed problems of pollution, crime and congestion, it has led to severe pressure on basic civic amenities and consequent decline in the living standards of the city dwellers. As a result the urban areas suffer from inadequate provision of safe drinking water, sanitation and drainage facilities causing our big cities towards stagnation and decay. The scenario of the rural areas is also no longer better than the urban areas. Due to exponential growth of population our country experienced the "Elongated Pyramid", which adds to social, economic and political difficulties.
- VI. Besides the above mentioned different types of pollutions, the normal lives on Earth are largely affected by degradation of human values with the growth of civilization over time. Continuous relaxations of social control on the part of the state following globalisation, self-centric attitude of the common people with growing nuclear family, passive role of so called educated people in different social activities following from unsecured lifestyle resulted in refraining the common people cause instability in social life and also in turn give rise to uncontrolled development in all walks of life.

#### **Ways to resist Pollution:**

In order to combat different types of pollutions, scientists and environmentalists have suggested different ways so that pollution may be reduced to a large extent. Emission of gas from industries, mining complexes, vehicles and chemical reactors can be reduced by installing appropriate devices using modern science and technology. In recent times Delhi authority imposed certain controls on the uses of public vehicles. We may use electronic technology and compressed natural gas(CNG) as fuel replacing the traditional method. Recently electric battery driven vehicles are being used at a large extent both in urban and rural areas. All these methods not only prevent pollution, also resist the extinction of limited resources of fossil fuels. Smart cities council has identified five cities those are using technology to reduce the harmful effects of polluted air – Hamburg was adopted as a smart city initiative with a focus on cleaning up its ports. Glasgow turns to IOT to monitor air quality. Oakland uses sensors to map pollution. Beijing's smog-free tower cleans 30,000 cubic meters of air every hour using just 1,170 watts of energy.

Similarly, in cases of farming, uses of water can be scientifically maintained through proper demonstration. The authorities of metropolis should take care to prevent the misuse of drinking water from public water supply and the village panchayat should also follow this method. In order to prevent contamination of water from different sources public authorities be given administrative and judicial power simultaneously.

Soil erosion can be prevented through massive tree plantation. Different states of our country have taken major steps to make their areas plastic-free.

Sound pollution is to be prevented by continuous propagandas to make public conscious about the ill impacts upon health and hygiene.

#### **Combating Planetary Crisis:**

Planetary crises developing everywhere have also made the future of the nation-state system and globalization themselves hotly debated throughout the world. Both the promoters and detractors of the globalization process often ignore the emergence of scientifically grounded 'holism' opens for a transformation of our concept 'Globalization' that addresses our planetary crises and opens up a liberated and promising future for humanity and fraternity.

Globalization can be understood both as a description and prescription. As a description, 'Globalization' refers to the widening and deepening of the international flows of trade, capital, technology and education within a single integrated global market. On the

contrary, 'Globalization' as a prescription may be accepted as an ideology by a global capitalist class designed to increase profits and decrease people's ability to thwart or resist the process of capitalist exploitation. The movement of neo-liberalism got strengthen since the 70's of the last century and the role of the state kept to a bare minimum because the state can't possibly possess enough information to sustain development.

Globalization therefore became the product of worldwide market integration. Thereby it is argued that a globalized market of free trade would increase prosperity everywhere. But what actually happened was quite the reverse. Not only has the ecological crisis depend but the world economic situation has left half of the world's population in a condition of object poverty at such a margin of human existence that words simply failed to describe it.

### What is to be done?

It is an accepted fact that any increase in population without corresponding increase in the means of subsistence results in chaos, inequality, exploitation, instability, alienation, public fury happened in countries like ours. Under this circumstance all evils of planetary crisis or ecological imbalances could be corrected if population could be controlled and proper education from the very beginning could be introduced. It is a surprising fact that India, being the 1<sup>st</sup> country in the world to have introduced family planning programme in 1952 but yet to establish any grip over the problem. We, therefore need seriously to review our population policy and investigate the drawbacks to reach the goal.

Sustainable development can only be achieved through proper implementation of education from the very beginning and use it in all works of the state policy. In recent years there has been a growing consensus that environmental education should be oriented around the idea of 'Sustainable Development'. It is argued that our relationship with nature is a central element of our sense of identity and that philosophy of education inherited from the 'Vedas' and the 'Puranas' and in modern times Rabindranath Tagore's philosophy of education has reawaken our relationship with nature.

### Conclusion:

From the above discussion we reveal that planetary crisis refers to pollution in all forms that endangers the existence of lives and species on the Earth, thereby leading us towards ultimate destruction. With the fast rate of economic growth, our existence and professional lifestyle have been merged together that we're encompassed within a very limited circle and have forgotten about the survival of our future generation. This is the planetary crisis in true sense. To get rid of this vicious circle, we need to introduce a new framework of education which may lead to a change in the system resulting in the creation of sustainable societies and new relations between human beings and between human beings and nature based on equality and reciprocity. But we can't create these societies and assert people's rights without increasing people's power. We need to reclaim education and politics, which may lead to globalization and awaken a sense in our mind to feel the world as a fraternal family. To implement the above idea in the minds of the common people we have to introduce education as a means of transformation of intergeneration parity, to protest against all kinds of oppression and capitalist exploitation by means of gender justice, empowering the weaker sex, to stand against the violation of fundamental rights in all forms and ensure democratic rights. If we can achieve all the above mentioned goals then sustainable development will automatically be gained. The solutions include public services achieved through tax justice, social ownership and co-operativism, local markets and fair trade, community forest management, and valuing the wellbeing of people and the planet. We need to introduce a new system that can commensurate international and national public policies that empower people to fight for a democratic state that ensures rights and provides environmentally and socially just public services, active popular participation; And a state that guarantees peoples' rights to water, land and the territories, food, health, education, housing and decent jobs.

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