# **Sustainable Development and Environmental Pollution**

## Dr. Archana Srivastav

Associate Professor, Department of Botany D.G. (P.G) College, Kanpur

## Dr. Naina Srivastava

Department of Botany D.A.V. (P.G.) College, Dehradun

## **ABSTRACT**

In today's world everyone want development either it is a nation or human being and this results in globalization, industrialization which led concern in environmental health. This development increasingly constrained by environmental concerns, including degradation of forest and fisheries, lack of fresh water resources, and poor human health as a result of air and water pollution. This blind development also results in exhausting natural resources and we are going to give nothing for our next generation. Hence, author is trying to grab attention to prevent environment after shading the light on different points from concept of sustainable development and environmental pollution to their effects on development. This paper deals with various aspects of development and major pollution drivers which have tremendous effects on environmental pollution. We have given a number of suggestions and some steps should follow by everyone. This work is based on data collected by secondary sources such as Text books, Journals, Research Articles and also from newspapers.

Keywords- Sustainable development, environmental pollution, Natural resources, Environmental health

## I. THE CONCEPT OF SUSTAINABLE DEVELOPMENT

Sustainable development can be defined as a dynamic process consisting of a series of balanced social, economic and environmental measures and changes aim to develop human energies, and protecting the earth, cities and trade. It aims to secure the needs of society, its welfare, security, safety and prosperity, without compromising the ability of future generations to achieve this in the future. Accordingly, it means the creative and productive work conditions that provide the income and a better life for all people. This does not mean reducing them to enhancing economic and material benefit or well-being only, but rather seeks to develop human capabilities in a healthy environment that contributes to raising the scientific, cultural and social level of society.

Sustainable development is a pattern of resource use, that aims to meet human needs while preserving the environment so that these needs can be met not only in the present but also for generations to come. (United Nations report, 1987). It is very clear that sustainable development involves careful handling of the available resources such that these resources are not extinct for even the future generations to use and enjoy. Since the future generations continue to face the challenge of an increasing population growth rates, the need for more resources for energy and other needs continue to rise. Natural resources should therefore be generously guarded despite intense human activity. This calls for an agreement with the proper resource management so that the future generations can also benefit. Management of resources should be inherent in the people around the world since man is part and parcel of nature. All the people old and young should develop a passion of the environment.

### II. MAIN GOALS OF SUSTAINABLE DEVELOPMENT

The main goal of sustainable development is human development, whose goals can be summarized as follow

- (1) It Builds a society capable of facing life and its developments in a positive and effective manner.
- (2) It helps positive thinking and developing its horizons towards depth and inclusiveness.
- (3) It educates societies on mastering the communicative skills according to sound moral foundations.
- (4) It enhances the individual's ability to develop his performance and capabilities in accordance with the requirements of his job and his tasks.
- (5)It emphasizes the value and importance of time, training skills, utilizing energies and talents, drawing life goals, and mastering how to deal with problems in a positive and effective manner.

# III. DESTABILIZATION OF DEVELOPMENT PROCESS THROUGH ENVIRONMENTAL POLLUTION

The haste of globalisation, urbanisation and industrialisation has led to severe environmental concerns in developing countries. Environmental pollution may destabilise development process and competitiveness of developing nations whose economies depends on natural resources. Economic development and human development efforts are increasingly constrained by environmental concerns, including degradation of forest and fisheries, lack of fresh water resources, and poor human health as a result of air and water pollution. Intensified crop and livestock production combined with misdirected incentive have contributed to increased production of chemical and organic waste, natural resource and biodiversity loss and soil erosion. Inadequate clean water supply, explosive growth in population, and artificial method of cultivation are the most severe environmental problem in many developing countries.

# IV. SOME MAJOR DRIVERS OF ENVIRONMENTAL POLLUTION AND THEIR EFFECTS ON SUSTAINABLE DEVELOPMENT

Basically, there exists three major driver of pollution namely industrialisation, urbanisation and globalisation surging the level of air, water and noise pollution-

- Industrialisation is the first fundamental cause of pollution. Among other things, industrialisation set in motion the widespread use of fossil fuels (oil, gas and coal) which are now the main sources of pollution. Industrial pollution contribute majorly in emitting waste gases like carbon monoxide, sulphur oxides, and nitrogen oxides which are the waste products of industry and end up in the air as well as dumping of industrial waste into water, endangering human life. Such industries include petroleum refineries, metal smelting, iron and steel mills, grain mills, and the flour handling industry.
- Urbanisation is the second fundamental cause of pollution. With population numbers literally exploding around the world, the demand for food and other goods goes up. This demand is met by expanded production and use of natural resources which in turn leads to higher level of pollution. On the other side of the coin consumption demand of these produced good is higher for higher concentrations of people which in turn are associated with higher waste generation. The process of urbanisation and emergence of urban centre involve concentration of economic activities which in turn require human capital that leads to concentration of people in a geographically smaller area. For supporting such growing economic activities and human concentration, infrastructure is inevitable but once the availability of infrastructure fall short to accommodate the urban demand, problems of poverty, high prices, low grade and unmaintained housing, congestion, environmental degradation and low living standards will begins to take hold. Urbanisation is characterised by industrialisation, population growth, high rises and slums resulting in rising demand for production and consumption for goods and services which yield more and more waste generation from production and consumption polluting the urban environment.
- Globalisation is another cause of pollution. Globalisation has become an effective facilitator of environmental degradation. Developing countries are usually lenient to implement laws and regulations on environmental protection. With this benefit and easy availability of cheap labour, investors or owners of dirty industries move their industries to such \_pollution havens' rather than installing them in more regulated markets.

## V. EFFECTS OF POLLUTION ON SUSTAINABLE DEVELOPMENT

Polution have various impacts on sustainable development, some are given below-

#### Negative effects

Pollution has a significant negative impact on sustainable development, which can be summarized as follows

- (1) It leads to decline in agricultural and animal production due to the infection of animals, plants and crops with various pests and diseases.
- (2) It decreases the labor productivity in various economic sectors as a result of workers suffering of various types of diseases and psychological and social problems.
- (3)The decrease in the productivity of the economic sectors is accompanied by an increase in spending money to address the social and economic effects of environmental pollution, which burdens the state treasury and contributes to impeding the development process.

However, the exacerbation of environmental problems increases with lower development rates and high costs, which necessitated the contribution of society and all stakeholders in the public and private sectors in preserving the environment, in order to reduce the negative effects of environmental pollution that impede the development process. The negative effects of pollution are not limited to the material losses it causes, but also include the amount of money spent on getting rid of pollution, combating it, and protecting the environment from it. It depends on the funds allocated to implement development plans.

#### 2. Economic effects

In light of the continuing exacerbation of environmental pollution, economists have argued that the degree of overcoming the problem is measured by the size of the real income per person. Formed a criterion for progress is represented by working to raise the average per capita real income, while economic activity does not continue due to the increase in the consumption rates of permeable natural resources. The practice of production and consumption activities leads to the emergence of wastes in nature that require disposal. The more waste, the greater the pollution rates in the environment surrounding humans .

# THE IMPACT ON ECONOMY IN SUSTAINABLE DEVELOPMENT BY ENVIRONMENTAL POLLUTION

- (1) The length of the bed rotation period in the hospital is prolonged due to the spread of diseases and germs, which leads to the prolonged stay of the patient in the hospital as a result of air pollution with microbes and epidemics.
- (2) The per capita health care costs rise, and the increase in the number of injured leads to the absence of workers from production centers, which leads to a decrease in productive capacity.
- (3) Pollution-fighting costs increase as governments spend huge sums of money to combat pollution resulting from the accumulation of waste. This exacerbates the economic losses of lost materials, energy and processing costs that exceed the budget of some countries.
- (4) Pollution affects development rates, as its increase contributes to reducing the volume of economic resources allocated to support basic needs and disrupting their employment in the right context.
- (5) The economic and human impacts result from the explosion of nuclear plants that leave dangerous nuclear and radioactive waste and radioactive quantities in the atmosphere.

### THE IMPACT OF ENVIRONMENTAL POLLUTION ON SUSTAINABLE DEVELOPMENT

Environmental Pollution is mainly divided into three components, air pollution, noise pollution and water pollution.

- Air pollution is primarily a by-product of energy consumption. Impurities in fuels lead to emission of sulphur dioxide and particulate matter. Troposphere ozone is not directly emitted from combustion but results chemicallyfrom high concentration of nitrogen oxides (from fuel combustion) and organic vapours (from paint dying and gasoline evaporation, among other things), in the presence of sunshine. Environmental pollutants are at their worst in urban areas, due to concentration of people, both as sources of the pollution (directly or indirectly) and as victims of the pollution. Air pollution can lead to health problems, including sickness as well as irritation and reduced human's mental and physical performance. The young and those weakened by other illnesses may be particularly susceptible to the effects of urban air pollutants.
- Urban air pollution also damages materials (such a buildings), increases the cost of maintenance (such as increased cleaning requirements), and degrades aesthetics (no one likes to live in a brown haze). Similarly water pollution also leaves harmful effect on individual's health.
- A critical problem of water pollution is groundwater pollution. Groundwater is the source of drinking water for many people. Because of the cleaning ability of the earth above the aquifer, groundwater has traditionally been relatively contaminant free. However, groundwater contamination does occur primarily from leaking storage facilities on the surface, either waste storage or storage of bulk liquids such as gasoline. In the past, chemical wastes have been dumped on the surface, finding their way into the groundwater many years later. Another source of groundwater pollution is the leaching of pesticides and fertilisers into the groundwater.

Hence in order to achieve the desired goals of economic development in society on the one hand, and to protect and preserve its quality from deterioration and deficiency for future generations on the other hand. This is an effective way to ensure success and to the continuation of agricultural economic development efforts in achieving the desired goals for the present and future generations.

## SOME SUGGESTIONS TO CONTROL AND PREVENT POLLUTION

The protection and preservation of natural resources is a humanitarian issue, in which the person is primarily responsible for its pollution and waste, as well as the first victim of its negative effects. At the same time, the responsibility falls on his shoulders to protect and prevent pollution.

This leads the human being to the necessity of preserving these resources from depletion and annihilation, and to exploit them with knowledge and rationality in order to achieve his well-being. There are several means and methods that can protect and preserve agricultural natural resources from the qualitative degradation resulting from pollution. Preventive ones are based on the use of clean production technology that does not lead to the emission of pollutants. At the same time, there are other procedural means that were based on laws and legislations in protecting natural resources to limit the pollution of available natural resources.

#### SOME USEFUL STEPS FOR PREVENTING OUR ENVIRONMENT

There are some small steps given for the prevention of environment and are also helpful to control pollution and can give healthy and pollution free environment-

- The features of sustainable development include a, rational usage of resources, pollution checks, population control and relative dependence on renewable sources of energy to meet future generations' needs.
- The planet must shift to renewable sources of energy as compared to the regular thermal or hydropower plants that lead to climatic degradation.
- Solar energy is an effective alternative that we can harness using photovoltaic cells. It is less costly and environmentally friendly.

### VI. CONCLUSIONS

According to this literature, industrialisation, population growth and globalisation are the roots of the gigantic pollution tree. Rising pollution not only affects human life directly but also indirectly by affecting what humans need from Mother Nature to continue their survival. Pollution directly affect human environment via increased emission of various gases depleting of ozone layer that repel high frequency ultraviolet radiations. All these result as an obstacle in sustainable development. Indirectly, degradation of environment is leading to destroy the natural habitat that provide basic survival needs for human such as increasing water pollution is leading to loss of marine output and species (fishes, herbs etc.), deforestation is causing low tree food production and soil erosion is lowering agricultural yield.

The idea of environmental conservation gains real momentum if we are able to conserve resources and use them in a manner that they are sufficiently available for the coming generation as well. Sustainable development as a process that provides for the present generation without compromising on the needs of the future generations. Sustainable development is affected by three major factors for instance environmental, economic and socio-political factors. Therefore to achieve sustainable development, social, economic, and environmental objectives must be met. We cannot sustain development in the long run if we fail to balance social, economic, and environmental objectives.

## REFERENCES

- [1]. Fadlallah, Salah Ali Saleh 2001 Environmental Pollution and its Impact on Agricultural Economic Development, Assiut Journal of Environmental Studies, Issue 20, Egypt,pp.74-76,77-85,86
- [2]. Skenderovic, Ibro, Kalac, Becir, and Becirovic, Suad 2015 Environmental waste management, Balkan Journal of Health and pollution Science, Volume 3, Number 1, pp. 2-5,7
- [3]. Hustad, Douglas 2016 How Can We Reduce Manufacturing Pollution, Minneapolis, Lerner Publications Group, Inc.pp.9-17,25-31.
- [4]. Al-Taai, Waleed Khalif Jabara 2012 Environmental Pollution and Green Economy, Ministry of Finance, Economic Department, Department of Economic Policies, Iraq,pp.6-12.
- [5]. Badran, Abdul Hakim 1988 Environmental Pollution, Its Sources and Its Types, Journal of Science and Technology, published by King Abdulaziz City for Science and Technology, Issue 4, Kingdom of Saudi Arabia,p.7
- [6]. Dalal-Clayton, Barry and Bassv, Stephen 2002 Sustainable Development Strategies, 1st.ed, , Earthscan Publications Ltd, London.p.10.
- [7]. Al-Saati, Adnan Jamal 1988 Water Pollution, Science and Technology Journal, published by King Abdulaziz City for Science and Technology, Issue 4, Kingdom of Saudi Arabia,p.14.
- [8]. Taher, Jamal Amin 2009 Environmental Pollution Waste Management and Treatment -, Assiut Journal of Environmental Studies, Issue 33, Egypt,pp.124-125.
- [9]. Al-Ali, Fahmy 1988 Noise Pollution Noise, Journal of Science and Technology, Issue 4, pp. 20-22.
- [10]. Soubbotina, Tatyana 2004 Beyond Economic Growth An Introduction to Sustainable Development, 2nd.ed, The International Bank for Reconstruction and Development, Washington D.C.pp.7-8,67-69.