Cleanliness and Environmental Protection: An Integral Issue

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Publication Info

Article history :

Received: 20th Aug. 2016 Accepted: 30th Nov., 2016

DOI: 10.18090/samriddhi.v8i2.7146

Keywords:

Environment, cleanliness, recyclable items, garbage.

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Abstract

The environment is a constituent element of culture in all societies. It therefore must take precedence on over all efforts to boost development and quality of life by the autonomous value of the environment and the need to protect it and manage it properly. We owe it, nevertheless, to ourselves, but chiefly to our children and future generations. An effort such as this, which aims to improve the environment and assist it to recover from human exploitation, must involve citizens, above all.

We must all adopt a positive instance towards the environment and make citizens aware not to do the impossible, but adopt few simple actions that can help make the difference every day. For instance, if we separate recyclable items and place them in the special blue bins, we are not only assisting to protect the environment but to conserve natural and financial resources. If we throw small items of garbage in wastebins rather than on the street, our city will immediately become cleaner. Additionally, by depositing rubbish in the bin, we improve the visual image of our city, reduce unpleasant odours and facilitate the movement of pedestrians and motor vehicles.

This paper covers day to day need to adopt cleanliness and its impact on environmental protection. Our efforts should be continuous to create a clean, environmentally-friendly city, state, country and globe at large to make our children and future generations healthy.

1. INTRODUCTION

It is a fact that a clean environment ensures the continual existence and survival of life on Earth. Cleaning the environment reduces pollution; protects unique ecosystems; prevents the extinction of endangered species and conserves resources, such as water, land and air. A clean environment ensures the protection of biodiversity and ecosystems upon which human life and all other forms of life on Earth depends upon. Now question comes:

- Why are fossil fuels bad for the environment?
- Why is ecological balance important?

Some of the greatest threats being faced by the planet as of 21st Century are Climate Change and

Global Warming. In recent years, the Earth's average temperature has increased. Climate and weather changes, such as heavy rainfalls resulting in heavy floods, severe heat waves, drought, melting ice caps and rising sea levels, have accompanied these rising temperatures.

Other factors that negatively affected the environment including toxic emissions and the pollution of water, land and air. Pollutants also adversely affect human health, causing health conditions and diseases such as cholera, heart disease, cancer, cystic fibrosis, and respiratory tract and eye irritation. Pollutants have led to increased mortality rates.

To maintain a clean environment, people need to reduce the use of toxic materials, conserve water and energy, dispose of garbage properly, recycle waste products, purchase recycled products, invest in green energy and drive fuel-efficient cars with reduced carbon dioxide emissions.

2. FACTORS AFFECTING THE ENVIRONMENT

2.1 Effect of Fossil Fuels on the Environment

Now it is proven that the burning of fossil fuels have negative effect on the environment because, they release carbon dioxide and other gases that trap heat in the Earth's atmosphere, which contributes to global climate change. According to the Union of Concerned Scientists, the burning fossil fuels during the last 150 years have increased atmospheric carbon dioxide levels by 25 percent. Levels of methane and nitrous oxide have also increased. In addition to contributing to global climate change, burning fossil fuels also pollutes the air, leading to negative health effects for animals. Exposure to the carbon dioxide produced by burning fossil fuels can cause headaches and increase the risk of heart disease. According to a research data, more than 2.5 million metric tons of carbon dioxide is produced by power plants only, each year. Sulphur Oxides is produced on burning fossil fuels and formation of sulphuric acid when they combine with water vapors. As this acid accumulates in lakes and streams, it makes the habitats uninhabitable for plants and animals [1].

Burning fossil fuels also results in thermal pollution. The process of burning any substance generates heat, and this heat is often released into lakes and streams when the water that they contain is used as a coolant. The increased temperatures in these lakes and streams upset the ecosystem, causing some species' populations to increase and others to decrease.

2.2 Greenhouse Gases and its Impact on the Environment

Several greenhouse gases are present in Earth's atmosphere, notably carbon dioxide, methane, nitrous oxide and various fluorinated gases. Each of these compounds absorbs light at its own set of frequencies, so together they manage to trap heat in the atmosphere across a broad spectrum of wavelengths. Carbon dioxide is one of the most common greenhouse gases present in the atmosphere. It is produced by the burning of carbon-based fossil fuels, such as oil and coal, as well as via some natural processes such as the decomposition of plant matter. Carbon dioxide is naturally scrubbed from the atmosphere by rain and other natural phenomena. Methane is a powerful greenhouse gas that is also generated in the process of decomposition. Much of the methane in the atmosphere is the result of largescale agriculture, such as the raising of cattle. Nitrous oxide is produced in ways similar to carbon dioxide and methane. Agriculture and the burning of fossil fuels contribute to its growing concentration among atmospheric gases, and its relative potency makes it the fourth leading greenhouse gas. Fluorinated gases are a distinct family of compounds that contribute to the greenhouse effect. These gases are extremely potent synthetic compounds that typically persist in the atmosphere for thousands of years because few natural processes have developed to remove them [2-3].

2.3 Importance of Carbon Dioxide

Carbon dioxide is important because it is used in photosynthesis, a process that is necessary for the survival on Earth. Carbon dioxide is also a vital greenhouse gas that helps to trap heat in the atmosphere, and plays a key role in Earth's carbon cycle. Plants and some microbes use a biochemical process called Photosynthesis to make food by

using carbon dioxide. These organisms combine carbon dioxide and water to produce carbohydrates while giving off oxygen. The rise of photosynthetic organisms that consequently reduced carbon dioxide levels led to increased oxygen levels and the development of oxygen-breathing organisms. Carbon dioxide contributes to the greenhouse effect by interfering with the return of energy from Earth's surface into space by infrared radiation. Greenhouse gases absorb infrared radiation. Without carbon dioxide in the atmosphere, Earth's climate would be much cooler[4].

Carbon dioxide acts as a climate buffer, because feedback in the carbon cycle helps to maintain global temperatures so Earth's climate does not get too hot or cold to support life. Out-gassing from the Earth's interior at active volcanoes, volcanic arcs and mid-ocean ridges is the primary source of carbon dioxide. Some out-gassed carbon dioxide remains in the atmosphere, but some is dissolved in the oceans or stored as biomass in living or decaying organisms [5].

2.4 Impact of Plastic on the Environment

According to Environmental Health News, plastic has left harmful footprints on the environment and possibly human health. Plastic waste is one of the most long lasting changes to the surface of the Earth. Before its News, most plastic products are not biodegradable and will most likely end up in a landfill or floating around Earth's surface. Plastic products take hundreds of years to decompose, and as it does, it releases toxins into the soil and bodies of water. This year alone, almost one trillion plastic bags have been produced, and production increases at an average of nine percent every year. With the increase in production, the amount of pollution also increases along with the amount of plastics piling up in landfills where it takes hundreds of years to decompose.

The pollution of plastics also affects nearly one hundred thousand animals per year, mainly sea turtles. The sea turtles mistake floating plastic bags as jellyfish and end up choking on the bags. Birds are also common victims of plastic bag pollution as they eat the bags, they become stuck in their throats. In addition, animals are also affected by the toxins from plastic being released into the environment as it decomposes.

3 CLEANLINESS & ENVIRONMENT

The Municipal Authority considers the preservation of a healthy, sustainable environment a key priority. As a basic component of environmental protection, recycling constitutes the core of our efforts. The City of Athens has introduced a major recycling initiative.

Respect for the environment is a constituent element of culture in all societies. Therefore, the autonomous value of the environment and the need to protect it and manage it properly must take precedence over all efforts to boost development and quality of life. We owe it, nevertheless, to ourselves, but chiefly to our children and future generations. An effort such as this, which aims to improve the environment and assist it to recover from human exploitation, must involve citizens, above all.

We must all adopt a positive stance towards the environment. It is not desired at all that citizens to do the impossible; just a few simple, everyday actions can help make the difference. For instance, if we separate recyclable items and place them in the special blue bins, we are not only assisting to protect the environment but to conserve natural and financial resources. If we throw small items of garbage in wastebins rather than on the street, our city will immediately become cleaner. Additionally, by depositing rubbish in the bin, we improve the visual image of our city, reduce unpleasant odours and facilitate the movement of pedestrians and motor vehicles.

Our efforts to create a clean, environmentally-friendly city are continuous. The waste management department provides its services on a 24-hour basis. Furthermore, within the framework of the Community Support Fund, the City of Waste Management Department i.e. Municipal Corporations are implementing a comprehensive, modern communication, automated-tracking management and transport scheduling system which aims to make the most effective use of human resources and facilitate citizens in terms of managing waste and protecting the environment. Thus, we have to give more emphasis on following points to make clean environment:

- Waste Management Regulations
- Recycling
- Obligations of Citizens & Businesses
- Disposal of Large Items
- Abandoned Vehicles
- Stray Animals
- Greenery
- Atmospheric Pollution

4. ENVIRONMENT AND ECOLOGICAL BALANCE

Ecological balance is important for the continued survival and existence of organisms as well as the stability of the environment. The natural balance in the ecosystem, which must be maintained, may be disturbed as a result of natural hazards, the unexpected death of a particular species, man-made causes or the introduction of new species to the ecosystem. Ecological balance is a condition of a dynamic balance within an ecosystem in which the species, genetics and the ecosystem diversity remain in a stable state irrespective of the gradual variations through natural succession. The ecosystem stability is characterized by two properties: resilience and resistance. Resilience is a property that is manifested in an ecosystem when organisms are killed or weakened. Resilience also refers to the

rate at which the density of a population in an ecosystem comes back to the equilibrium after a particular disturbance. Resistance stands for the potential of an ecosystem to prevent the animal population and trees from succumbing to stresses such as high pollution or drought.

Diversity is maintained when organisms interact, and enhancing or destroying a specific species in an ecosystem may affect the entire population density over time. Some species, such as the sea otter, play a significant role in maintaining ecological balance and are known as keystone species.

5. CONCLUSION

From the above study, it is seen that without cleanliness, environment cannot be protected nor ecological balances can be maintained for the survival of the species or mankind. It is rather not only the responsibility but also the duty to make better environment by cleanliness that is an integral issue.

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