

# Environmental and ecological sustainability

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First before going into the environmental and ecological aspect of sustainability, we would define the term sustainability. Sustainability can be defined as the characteristics of a process or state that can be maintained at a certain level indefinitely. When we re now talking about the environmental and ecological aspects of sustainability, we would say that it is the potential longevity of the vital human ecological support systems. Some of those support systems are the climatic system of the planet, agricultural system, forestry, fishery, and industry. The sustainability talks about all areas of human aspects that have to do with the way it survives.

The use of the word sustainability in academics and public discussions over the recent years has provided a form of reference to show on how long human ecological system would be usefully productive. And the reason for this study is to prevent the collapse of structures that aids the survival of man. One of those reasons is for example, to enable a sustainable agriculture. This is to make sure that the agricultural system that enables the provision of food for the masses lasts indefinitely.

The study on sustainability has proved to be very helpful to mankind. It is on how to make human systems last longer without having much affect on the ecological systems. it also relate to the worlds major problems, which are mainly climate change and oil depletion.

There have been diverse views on the discourse of sustainability and its definitions. According to Brundtland Commission, defining sustainability as the right of future generations to be considered when taking decisions on ecosystem and the use of raw materials. This is a definition of sustainability that has to do with ethical and ecological aspects of human existence. This

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concern has to do with the depletion of fossil energy and cycles that are of importance to a sustainable agriculture just nitrogen cycle is one of them.

## BACKGROUND AND SIGNIFICANCE

The issue of sustainability goes back to late 50s, when there was the introduction of the clean air act (1956-1968). These years proved then to be invaluable when it comes to environmental education until the 70s when it began to appear on the government scene. It was in this decade that the green peace was founded. One of the positive impacts of the green revolution in these decades was that there was a lot of participation by government, non-governmental, developmental organizations and agencies to address the issue of sustainability in all areas of human existence.

In the recent past decades, there have been effort to ensure that business achieve their environmental and sustainable ideals and part of those efforts were the likes of the Stockholm conference about human and environment and the Limits to growth report which was concerned on environmental issues. This is was the era when the setting up of government regulations came into action. All this was done in 1972.

Some question does arise about environmental and ecological sustainability. Some of those questions are: Are these resources worth preserving? What is the purpose of preserving these resources? And are the people supported by this action worthy of the action taken to preserve these resources for them? These are clearly statements and questions of moral ethics and they do arise when it comes to the preservation of resources.

There is a great level of variations when it comes to the details of value within and between cultures and also between economics studies. The implication of a much more complex and contentious debate has been raised as result of the introduction of social value to sustainable goal and there have been a very strong resistance to a non-ecological interpretation by those that are focused on ecological impacts.

From other points of view, sustainability goes way more than the protection of environmental values. It is a concept that displays much positive light on the much that have to be done in other to achieve the well being of people and the ecosystem at large. It also has to do with the reduction of stress that comes along with ecological and environmental impacts. Looking at it from this point of view, it shows that it is still a subject to debate than the definition provided by Bruntland, which is simpler.

Human overpopulation and lifestyle has a lot to do sustainability and it is one of its critical issues. It has been argued that the current world population rating to about six billion cannot support actions taken to achieve sustainability. So, if the population of the world is to be reduced then here might be a positive chance of achieving sustainability.

#### PUBLIC HEALTH SIGNIFICANCE

Much has bee put into the sustainability of environment and there will be a lot of impact of there is any environmental or ecological change.

According to research and statistics, study shows that there are about 90 million people added to the population of the world on a yearly basic. That is why there is a great need to maintain the level of sustainability to a level of

harmony so that it would not affect the existence of man. These are the reason why there is need to maintain our biological heritage so as to avoid a devastating climate change, sustaining our source of life which is our soil water, reducing the scourge of poverty hunger and diseases by the protection of human healthy.

There are needs to make the issue of sustainability our personal concern. There is a great need for the addressing of policies and international issue on sustainability. Some of those issues are the checking of the rate of fossil fuel burning, the use of natural resources and the counter production of agricultural subsidies. One of the actions of the United Nations is the conference held with industrialized nations on ways of checking the use of fossil fuel. There are various ways in which environmental change would affect the well-being and existence of man. Such ways could be:

**CLIMATE CHANGE:** Studies have shown that emission of gases has been the major cause of global warming and this is as a result of the gases from the greenhouse which regulates the Earth's temperature. This is as a result of the innovations of this modern era and industrial revolutions increased the human consumption of fuel I and increasing the level of carbon-monoxide and carbon dioxide. Other major source of carbon dioxide production is the manufacturing of cement.

**SHORTAGE OF WATER AND CRUDE OIL:** According to the definition of Brundtland Commission, that defines sustainability as, the right of future generations to be considered when taking decisions on ecosystem and the use of raw materials. We would see that when there is no sustainability in environmental and ecological materials, there would be shortage in the <https://assignbuster.com/environmental-and-ecological-sustainability/>

nearest future. The outcome of over exploitation of the raw material available to a certain country would lead to shortage for the future generation.

**LAND AND SOIL DEGRADATION:** Apart from the popular belief that the burning of fossil fuel is the major source of resource exploitation, another form of the improper use of land. This is done by Irrigation and deforestation and actions taken by these actions affects the environment. They affect the amount of water that goes into and out of a location and they also affect the ground by change the amount of sunlight that is absorbed. This is a suggested action that resulted to the change of climate in Greece, making the weather to be hotter and drier.

**COLAPSE OF NATURAL AND OCEAN FISH STOCK:** improper disposing of waste could are affecting the natural and ocean fish stock. Some of the causes are the industrial actions taken by disposing of the warm water used in cooling the machines. This increases the temperature of the water body thereby killing the life forms in the water. Oil spillage is another cause and the illegal disposing of radioactive waste in river bodies.

**EMERGING DISEASES:** This is one of the outcomes if there is no proper sustainability of the natural resources available. It is the out come of other significance stated above. We would take for instance, when there is no proper control on the exploitation of land use and its improper use, it would lead to hunger due to poor production of food the poor production of food would cause hunger and thereby bring about the diseases and illness. This is also another result of the production of poor quality food. Leading to obesity and other chronic diseases.

Non-control of the use of water can also lead to the contamination of that water source. This could lead to mass poisoning and non-use in the future. Contamination of air through the uncontrolled burning of fossil fuel can contaminate the air and lead to respiratory diseases.

#### CAMPUS SUSTAINABILITY

There have been great strides over the last fifteen years in efforts to address the issue of resources use, sustainability, and developing the environment in campuses. Some of the steps are the formation of various sustainability teams. The rationale behind these formations is the addressing of current problems and issues. It has been shown by experts of various disciplines and department that various human activities are creating situations that would not sustain the other life forms. And if some actions are not taking, life sustenance would deteriorate.

There are also current studies showing that the current trends in the consumption of humans and the use of other important resources do not support sustainability. If a society is not sustainable, it would lead to wars and the promotion of social and economic injustice. Situations like this would increase the risk and challenges for the future generations.

There is an interrelation between the various aspect of human life and ecological integrity. Peace, social and economic justice, gender, racial, and ethnic equality, true democracy and political freedom are areas that are important to the sustainability of man and one without the other is impaired. Therefore, the deterioration of the social live of man would affect their sustainability and leads to degradation.

Universities are no doubt one of the members of the environmental and ecological communities and therefore, there must put in their contribution and play their part by contributing as one of the positive force to the achievement of the sustainability of the environment. Another important role is the responsibility of the university to train experts that would develop policies, science and technological aids in the achievement of this goal. This is as a result that, you can not take away the issue of sustainability in all disciplines of the universities because; there exploit the ecology and environment one way or the other.

Campuses have to seek better ways of reducing their direct and indirect consumption and creation of waste and one of the ways of doing this is to encourage the use of resources from recyclable goods. Another way is by encouraging the attitude of students that work towards sustainability. This can be done by financially rewarding them and sponsoring programs that are organized to achieve these goals. All these action would assist to the sustenance of the ecosystem.

The University Leaders for a Sustainable Future (ULSF) has stated that: "Sustainability' implies that the critical activities of a higher education institution are (at a minimum) ecologically sound, socially just, and economically viable, and they will continue to be so for future generations. A truly sustainable college or university would emphasize these concepts in its curriculum and research, preparing students to contribute as working citizens to an environmentally sound and socially just society. The institution would function as a sustainable community, embodying responsible consumption of food and energy, treating its diverse members with respect,



and supporting these values in the surrounding community.” With this, it is known that the activities of sustainability in universities are teaching, research, operation and outreach in other to promote this course.

The aim of this teaching is to empower students of all ages to the assuming of the responsibility that goes with sustainability. The Presidents Council on Sustainable Development has added that “ Education for sustainability is a lifelong learning process that leads to an informed and involved citizenry having the creative problem-solving skills, scientific and social literacy, and commitment to engage in responsible individual and cooperative actions. These actions will help ensure an environmentally sound and economically prosperous future.”