

# Sociology and natural resources: environmental sustainability



**ASSIGN  
BUSTER**

**Environmental Sustainability:** Environmental sustainability refers to maintaining balance of natural resources within the environment. These resources include human life, elements necessary to maintain living conditions of humans and other species, environmental procedures that renew resources such as water, climate, air and containing depletion of resources that preserve quality of life in society such as oil, coal etc (Sutton, 2004). In principle Environmental Sustainability include areas relevant to resources, energy and their management, sanitation, recycling, preventing pollution, innovating technology for cleaner environment keeping socio-economic and legal constraints in view. An environment is facing a sustainability threat when present habits, lifestyle and usage manner of society is hazardous to long term existence of the resource and it is feared to be depleted in future. This is when policies and programs are formed to use such resources efficiently so that future generations can also benefit from them as have past generations.

These environmental threats can be related to a particular society or could have global implications. Depletion of natural resource or any risks to natural environment means that an entire social setting is at risk. It affects lives of people belonging to that social setting massively. It is no surprise that it impacts the economic stability as a result of a chain reaction. Simply put, the natural resources such as hydro power, coal and oil are fuels for manufacturing plants.

These resources act as input for economic sustainability. If a society has sustained its environmental resources using recycling, ecological development, innovating products, developing new energy resources,

<https://assignbuster.com/sociology-and-natural-resources-environmental-sustainability/>

altering lifestyle and usage of minerals then it will consequently reflect on economic sustainability. Environmental Sustainability: Framework (275)The environmental sustainability is set of underlying ideas for sustaining the physical environment, natural resources and procedures. It is important to note that this framework can vary from culture to culture and society to society. First and foremost it is important that natural assets are maintained and restored. This includes having a healthy and productive land to encourage agriculture and organic growth of vegetables and other edibles.

Healthy and productive water systems are maintained. Water systems play significant role in sustainability of ecology and are interlinked with having productive land and stable agricultural growth. Safeguard marine and costal areas by protecting sea life, minimizing pollution on coasts and shores and increasing marine vegetation on coastal line and under-water. Encouraging biodiversity and healthy ecological system, this is promoted by agricultural development and encouraging cultivation which is in negative in most societies. Reduce air pollution through using environmental friendly fuels and substances in machinery and automobiles.

Develop parks, green areas and fields in urban and rural areas to counter the loss of trees and forests all around the world. Next, it is of importance that natural resources are efficiently used. It is a society's responsibility to efficiently use natural resources such as minerals; oil and coal. Replace these resources with sustainable resources like wind where possible and effectively recycle them for future use. Level of forests is sustained; this can be done by reducing the cutting rate and developing artificial forests. Water

also needs to be efficiently used because it is imperative natural resources depended on a natural restoration process, rain.

Irrigation system can be improved upon. Recycling, reusing and purifying ocean water should be encouraged. Finally, a change in lifestyle of society can phenomenally affect the overall environmental sustainability. It can reduce the negative effect of depleting resources on the climate. Societies are required to develop saving ethics for natural resources such as water, energy and fuels. Transport systems could be made more eco-friendly using less carbonated fuels and measures should be taken to reduce environmental pollution in urban and metropolitan cities (Department of Sustainability and Environment, 2005).

Environmental Issues; Cause And Effects (1100)Environmental issues, threats and concerns at global level are a lengthy and elaborative debate. It includes a broad spectrum of subtopics that each plays a very crucial role in sustaining the environment. Amongst those issues are climate change, global atmospheric change, water resources and pollution, nuclear issues, energy and natural hazards. Climate & Global Atmospheric Change: Perhaps one of the most discussed issues amongst all environmental issues and threats is climate change or global warming. It refers to average change in climate over time as a result of increased human activity on Earth. This change is increase in atmospheric temperature of Earth.

The main causes or factors of global warming and climatic change are glaciations, ocean variability, greenhouse gases, and human activity. Process of forming and melting of ice glaciers in the Polar Regions is very important

<https://assignbuster.com/sociology-and-natural-resources-environmental-sustainability/>

to climatic change. It effects and is affected by global warming in bi-directional manner. Melting glaciers lead to rise in oceanic level or ocean variability which means that during the coming centuries the area of Earth covered with water will increase and most islands will not be over the face of Earth. Rising ocean levels also mean that less land will be available for cultivation and green growth, ultimately throwing the environmental equilibrium off-balance. Green house effect is also playing a role in changing environment.

The concentration of carbonic gases within the Earths atmosphere trap the heat received from Sun. In recent years as these carbon dioxide based gases have increased, so has the temperature on global level, leading to melting of glaciers and increased level of oceans. The entire chain of global warming eventually leads to human activity on Earth. The increase in level of carbon dioxide which leads to green house effect, melting glaciers and ocean variability is actually caused by emissions from burning fossil fuel, extensive land use for capitalist activities, space activities and finally deforestation (Stienfeld et al.

). Water Resources: Water is amongst the four central elements necessary for human life on earth. Water is a natural resource that renews itself as a result of natural process known as Water Cycle. This procedure recycles water naturally and provides the earth with renewed resource each year.

However, it is heavily depended on plants and vegetation on earth.

Disturbances maybe caused in this procedure as a result of environment equilibrium being off balance. The global warming can cause the water cycle

to complete its circle in a lesser time due to high temperature and increased evaporation which could result in increased storms and rains. This could effect the vegetation and cultural growth negatively. While some areas maybe affected due to excessive rains others might even phase droughts. Its major causes include deforestation, urbanization and creation of large un-natural water reservoirs (Pickering & Owen, 1997).

Water resources are also at risk because most factories and domestic wastes are dumped into them. This not only pollutes the water, threatens existence of marine life but also increases chances of acidic rain as the water vapors that would be created from ocean will be polluted by nature. Nuclear Issues: Nuclear energy could be the most efficient replacement of fossil fuel. It is highly efficient, poses hardly any environmental risk and produces virtually no by-product as in the case of fossil fuel which emits carbon dioxide. However, the problematic aspect of nuclear energy is that extreme diligence is required to handle it as the elements used for nuclear fusion, plutonium, uranium etc., are highly unstable and reactive.

If came into contact under unprotected environment, the radioactive isotopes are so toxic that they are life threatening. Refining and enrichment of plutonium and uranium contaminates the surrounding area. It negatively affects the water, land, air and plants. Overall eco-system is affected as result of enrichment of these elements.

The radioactive isotopes of these elements are very volatile and remain toxic for a very long period of time. Nuclear waste is produced as a result of element enrichment. This waste is highly radioactive and its toxic nature

makes it impossible to discard it. Wastes formed as result of enrichment of Plutonium can remain hazardous for as long as 240, 000 years.

Nuclear waste is not easily mobile and hardly any dumping sites have proved to be an effective solution up till now (Lai & Morrison, 2007). Energy: The demand of domestic and commercial consumption of energy is increasing day by day. The source of this energy is mostly minerals and natural resources such as fossil fuel that is coal, natural gas and oil. The oil and fossil fuel are limited resources that are facing very fast depletion as result of high consumption rate and drastic change in lifestyle patterns and energy consumption of the world after Industrial Revolution. Combustion of these fuels cause emissions of green house gases in the environment leads global warming followed by a chain of events. Extraction of these resources also releases radioactive elements into the environment such as uranium and thorium.

The fossil fuel energy is depleting very fast. The society and civilization as we know will not be able to sustain the similar lifestyle longer then the end of this century. Not only the fossil fuel energy causes pollution and environmental damage, our heavy reliance on it as our primary energy sources threatens future sustainability of our civilization unless it is replaced by and alternative energy resource (Korpela, 2006). Natural Hazards: Natural hazards are also a key component when it comes to shaping our environment. There are mainly three types of natural hazards; geological, meteorological and biological.

Volcanoes, seismic activities and earthquakes are all geological hazards. Causes behind these hazards are not entirely known. Seismic activities of earth's seven large plates continue on regular bases as a part of their natural procedure. However, they do somewhat depend on atmospheric and climatic environment. They are also responsible for drastic landscape changes on earth such as forming of oceans, new islands, mountains, lakes etc.

Other disasters such as landslides, rock and snow avalanches are also geological hazards. These are mainly caused by changing weather and changes in atmosphere. For instance, a disturbance in water cycle that causes heavy rainfall could result in land sliding from mountain tops towards plains. Meteorological changes happen due to Sun's energy. It is important to note that Sun is the key component of the water cycle and global warming. This leads to risen sea levels, tornadoes, storms, hurricanes, heavy rains, floods, droughts, snow and blizzards etc.

The effects of above mentioned meteorological and geological changes often result in biological catastrophes. Destruction resulted after any meteorological or geological disaster leaves population of affected area vulnerable to proliferation of pests and epidemics. Finally, it is to note that the natural hazards are highly depended on each other for occurrence, that is, heavy rains and storms could lead to land sliding and the to epidemics in affected areas. They are also, in fact result of other environmental threats and instabilities such as global warming, pollution and depletion of ozone layer (Pickering & Owen, 1997).



Sociological Findings (550 words) Having developed an understanding of Environmental sustainability, environmental framework, the factors effecting environments sustainability we'll now move to discuss some researches done by to understand close ties of society, civilization, economy and environmental sustainability. Researches have claimed that there are five forces in the global environmental that drive and challenge the environmental sustainability; population, affluence, technology and culture. These are the very factor around which a society evolves and they further alter the environment. The researchers have established that as population increases and technology advances there has been increased environmental threats. An interesting aspect covered is culture, according to researchers that cultural values and lifestyle also leave an impact on environment of a particular society.

Societies with awareness and high saving ethic for resources have healthier more stable environmental conditions then others (Steg & Vleck, 2007).

Another research looks at environmental sustainability in a more psychological manner. According to the researcher, a society's environment can be analyzed by evaluating their overall rational-economic, social dilemmas and attitudes. Researcher studied reduced water consumption at a set of households where water consumption level of each appliance was labeled. As awareness was created amongst subjects, the water consumption went down. However, researcher admits that this might be because of holistic social framework that made subjects alter their consumption habits.

Nonetheless, the findings are encouraging for developed economies (Kruz, 2002). Some studies have also studied the relationship between environmental sustainability and quality of life. Researchers' approach towards the study was based on integrative approach whereby they integrated a society's social, economic and environmental indicators to study the entire society. The study shows that environmental indicators are highly dependent on economic factors.

Developing economy with rising growth rates see an increase in level of environmental threats but as they grow and reach an optimal level they gradually start taking initiatives to curtail these environmental issues. The study shows a declining trend in pollution rates of developed economies. These finding strengthens the facts discovered in the previous research that as awareness and ethics regarding environment's safeguard grow in the society, the environmental sustainability increases (Flynn et all, 2002). It is an established fact that aggressive economic development is a threat to environmental sustainability of existing civilization. A research adds the component of military security and political influences over the ever present economic development factor. It studies that both these factors while damage the environmentally sustainability, for extensive growth in future they need to rely on it.

It is important for economies and societies as whole to realize this important fact on global level. The environmental science is becoming political and it's an opportunity for environmental managers to work and develop on projects that are necessary for sustaining the depleting resources. The research encourages exploring onto opportunities where environmentalists can come <https://assignbuster.com/sociology-and-natural-resources-environmental-sustainability/>

to agreements between government, private businesses and civil associations for the betterment of entire society. While realizing that this partnership creation process is very delicate and crucial, researcher advocates that the long term benefits of these alliances are worth the diligence (O'Riordan, 2004). Finally, one more interesting view was discovered where the researcher linked the better environmental conditions with sustainable income and employment level. The research discusses the environmental and natural resources are an asset that helps create employment within an economy.

A nation depends upon them. If the flow of usage of these resources is used in an appropriate manner then an economy can very easily develop a sustainable competitive advantage over other economies (Mallick et al, 2000). <http://www.blackwell-synergy.com/doi/pdf/10.1046/9999-9999.99999>

Conclusion (275 words)Deducing from above discussion of literature, science and real world findings; there is a very strong connection between sustainable environment and economy. None of them can be isolated. However, they crucial aspect is moves for developing a sustainable environment.

Alternative energy resources appear to be the best solution. Instead of depleting the existing natural resources, an economy can explore bioenergy, geothermal, wind, solar, hydrogen and tidal energy. All of these resources are sustainable and does not harm the environment as a result of their usage. Implementing them, however, might require large investments of

governments and business at this stage which is driving them away to apply these innovative solutions.

It is for masses to realize that it is better that we switch to these alternative now then later because the mankind might be at brink of a very large disaster.