



Global warming and environmental management for sustainable development

M P Singh¹, Nazo Bi²

¹ Department of Botany, Government (P.G) College Hasanpur, Amroha, Uttar Pradesh, India

² Department of Botany, Maharaja Agrasen (P.G) College Bareilly, Uttar Pradesh, India

Abstract

Global warming means to the rise in global temperatures due mainly to the increasing concentrations of green house gases in the atmosphere. Global warming is primarily caused by emissions of too much carbon dioxide and other heat-trapping gases in to the atmosphere when we burn fossil fuels to generate electricity, drive our cars and power our lives. The Global environment is facing a number of problems due to increasing biotic pressure, deforestation, over exploitation of land resources and pollution. The environmental degradation can be observed in the form of soil erosion decreasing productivity of agricultural land, climate changes, lack of forests products, decreasing capacity pastures. It may have serious implications on the human health, his activities and plants, It may also reduce crop yields significantly. The Control of environmental pollution and degradation is the main issue. Due to adoption of modern means of science and technology, the man is modifying the environment according to his own need requirements. Consequently the ecological system has mostly been jeopardized. The Existence of life has been put into danger. Both the natural and cultural hazards have forced the large included floods, droughts, desertification, water erosion and atmospheric pollution while cultural hazards included over population sums, poverty, deforestation and pollution; the environmental degradation is increasing the trends in desertification and waste land and deteriorating the agricultural products even in such are as where once the flourishing lands were found. Environmental planning and management programmes and properly executed to contral pollution at local, regional and global levels. Environmental management is evolving rapidly; it is important for more and more sectors of human activity and plays a crucial role in establishing sustainable development. Therefore the concept of environmental management in the prespective of controlling environmental pollution is relevant in present scenario.

Keywords: Global warming, environmental pollution, green house gases and sustainable development

Introduction

Global warming is one of the most serious problems of the world. The various causes of the global warming include increase in carbon dioxide level in atmosphere due to power plants and automobile industries, increase in methane level due to biomasses burning, chloro-fluoro carbons, nitrous oxide and depletion of forest cover. Consequently, global rises average temperature by about one degree Fahrenheit during the last century and it will rise more rapidly in the forthcoming decades. Many global issues are climate related, included basic needs such as food, fodder, water, health, fuel, industrial material and shelter. Global warming and climate change from various perspectives. Environmental management is a process concerned with human–environment interactions, environmental issues are so intertwined with socio-economic issues that it has to be sensitive to them, especially in poor developing countries.

Environmental management cannot hope to master all of the issues and environmental components it has to deal with. Rather, the environmental manager's job is to study and try to control processes in order to reach particular objectives (Royston, 1978). Sustainable development is about improving the lot of people and avoiding environmental degradation. In a quest for sustainable development the goal of environmental management may be said to be: to stretch what nature provides to the optimum and maintain that expansion indefinitely without environmental breakdown, in order to maximise human well-being, security and adaptability. This demands high-quality management of the environment and human institutions, and the ability to

recognise and avoid, mitigate or adapt to socio-economic and physical threats. Many are now 'dancing to the same sustainable developmenttune', reflecting the greening of politics in Western countries since the 1980 (Adams, 2001) ^[1]. Sustainable development draws upon two, often opposed, intellectual traditions: one concerned with the limits nature presents to humans, the other with the potential for ever-increasing human material development (Redclift,1987; 199; Barrow, 1995b) ^[7, 3]. Sustainable development are some examples of wind energy could significantly supplement entire grid systems. A solar farm can reduce ninety fours percentage of the emissions that a coal power plant emits. It also eliminates noxious pollutants like sulphur nitrous oxides and mercury which are major of air contributors to the air pollution responsible for millions premature deaths every year. Crop rotation control less erosion and store more carbon in soil assisting with carbon sequestration (Extention. iastate.edu. 2018) ^[5]. Green spaces such as parks, wetlands, lakes, forests or other ecosystems are fundamental to sustainable develop durban areas. These areas are essentials for cooling cities while trees produce oxygen and filter out air pollution. Sustainable development that have the potential to perpetuate positive global change.

Effects of global warming

The major effects of global warming that will help you to understand the seriousness of this environmental managements and sustainable development to everyone mandatory.

1. The primary effect of global warming is increase in the average temperature of the earth. According to reports of National Ocean and Atmospheric Administration, the average temperature has been increased up to 1.4 degrees Fahrenheit across the globe over the past hundred years. Life on the earth has to struggle very hard to survive.
2. Carbon dioxide plays a vital role in increasing global temperature. Carbon emission is increasing day by day through various human activities that are ultimately affecting ocean acidification.
3. Melting of ice is mainly affected by global warming. The increasing temperature of the planet is causing ice melt. Arctic sea is also affected by global warming. Glaciers retreat is another example of global warming effects.
4. In general, sea level rises when the ice melts. According to the 2014 report of the world Metrological Organization, a rise in sea- level has accelerated on an average of up to 0.12 inches every year worldwide. It is a big reason to worry about the future of our planet.
5. Climate change is the foremost observed effects of global warming. It is affecting every single corner of the earth, starting from glaciers to sea levels. All this has invited extreme weather events to occur. Consequently, some parts of planets experience sweltering summers, whereas some parts experience freezing winters.
6. Due to global warming, the chances of extreme weather events like hot waves, drought, floods, hurricanes, etc. have increased a lot.
7. Flora and fauna of the earth are also the victims of global warming. Due to global warming, various plants and animals species are moving o higher altitudes towards North (as reported by the National Academy Of Sciences).
8. Global warming will also spread various disease causing pathogens that will result in the killing of many plants and animal species.
9. The effects of global warming may lead to the disappearance of about one –half of Earth,s plants and about one-third of animals from the current range by 2080 (as specified in the Journal Nature Climate Change report, 2013).
5. Sustainable infrastructure is also an important measure to fight against global warming. To reduce carbon dioxide emissions from buildings.
6. We need to limit our consumption not only food but other uses as well- like clothing, cleaning products, cosmetics, etc. If consumption is less, it will generate less waste to dispose of.
7. Save water to minimize carbon polluted because it takes much energy to pump, heat and water for usage. Hence try to take shorter showers, turn off the taps while brushing teeth, use your dishwasher and washing machine to full capacity, etc.
8. Try to used cold water instead of hot water for a shower or washing clothes etc. It also helps to minimize carbon emissions.
9. Simultaneously, focus on saving energy because the more use the energy, the more carbon in the atmosphere resulting in the global warming. Hence, switch off the electronic appliances, gadgets, devices, etc. if you are not using it.
10. Make a habit of recycling waste because it helps a lot to cut down the carbon emissions in the atmosphere.
11. Raise awareness about global warming- how it causes, its effects, and how we can prevent it. You can share information wit your family, friends, children, or your colleague about global warming abundantly in our society.

Green house gases

The earth has a natural green house effect due to trace amounts of water vapour, carbon dioxide, methane and nitrous oxide in the atmosphere. Some atmospheric gases absorb and re-emit infrared energy from the atmosphere down to the earth's surface. This process, the green house effect. One needs to distinguish between the natural green house effect and the enhanced green house effect. The natural green house effect is caused by the natural amounts of greenhouse gases, and is vital to life. In the absence of natural greenhouse effect the surface of earth would be approximately 33°C cooler. The enhanced green house effect refers to the additional radiative forcing resulting from increased concentrations of green house gases induced by human activities. These include the burning fossil fuels for producing electrical energy, heating and transportation. By increasing their concentrations and by adding new green house gases as CFCs, humankind is capable of raising the average global temperature. Atmospheric aerosols: Human are adding large quantities of fine particles (aerosols) to the atmosphere, both from agriculture and industrial activities. Although most of the aerosols are soon removed by gravity and rain fall, they still affect the radiation balance in the atmosphere. Whether this effect adds to or offsets any warming trends depends on the quantity and nature of the particles as wellas the nature of the land or ocean surface below. The regional effects, however, can be significant. Environmental management is a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency. Environmental resource management tries to identifies factors affected by conflicts that rise between meeting needs and protecting resources (Uehara, Thiago Hector Kanashiro *et al.*, 2010) ^[11]. Sustainability in an environmental resource management involves managing economic, social, and ecological systems both within and outside an

Controls of global warming

We can also find out some solutions to rectify these effects. Here are some ideas that you may follow in controlling global warming-

1. Deforestation needs to be controlled if we want to contribute to treating global warming. Stop cutting trees and focus on reforestation and afforestation with proper forest management.
2. We need to minimize our energy consumption. We can help it by using energy-efficient devices like LED light bulbs at our homes, hospitals, colleges, hostels, factories and other places.
3. We should do is stop using or minimize the use of fossil fuels. Instead of this, we can use renewable energy source like solar, wind, biomass, geothermal, etc.
4. Transportation is one of the significant reasons for carbon dioxide emission. We can reduce carbon emission by promoting sustainable transportation like public transportation, carpooling etc.

organizational entity so it can sustain itself and the system it exist in (Avery, Gayle C., *et al.*, 2010) ^[2]. To achieve sustainable development with environmental resource management an organisation should work within sustainability principles, including social and environmental accountability, long term planning; a strong, shared vision; a holistic focus; develop and consensus decision making; broad stakeholder engagement and justice; transparency measures; trust and flexibility (Dunphy, Dexter et al., 2007 and UN Global compact 2010) ^[4, 12]. Recycling is a process that involves collecting, reprocessing and recovering certain waste material as glass, metal, plastics and paper to make new materials or products. Some recycled organic materials are rich in nutrients and can be used to improve soils. The Conversion of waste materials into soils additives is called composting. Sustainable development is important for save national budget, fulfils the need of people, conserves natural resources, by using renewable resources like hydroelectricity, geothermal power, reducing pollution, poverty, unemployment, promoting economic growth, and helps in the coordination between the natural resources for future generations.

Conclusion

The world is facing the problem of global warming, and the one who are majorly responsible for stop global warming can still reduce and slow down it. Warmer average temperatures will likely lead to hotter days and more frequent and longer heat waves. Human beings are responsible for causing changes in natural environment and can lead to heat-related illness and deaths. Increases in the frequency of extreme weather events such as storms could increase the risk of dangerous flooding, high winds, and other direct threats to people and property. Environmental management might be to have systems in place to control and prevent pollution, such as effluents getting into a river or implementation of a biodiversity programme to ensure that the flora and fauna of an area is enhanced once a project has been completed. Present study reveals that global warming, greenhouse gases, atmospheric aerosols, burning of fossils fuels, environmental management for sustainable development are most essential and serious problems, raises awareness to every persons otherwise consequences will not be better in future generation surviving their life in problem.

References

1. Adams WM. Green development: environment and sustainability in the third world (2ndedn). Routledge, London, 2001.
2. Avery Gayle C, *et al.* Honeybees and Locusts: the business case of sustainable Leadership. Allen and Unwin, 2010. ISBN 978-1-74237-395-5.
3. Barrow CJ. Developing the environment: problems and management, Longman, Harlow, 1995b.
4. Dunphy Dexter Colboyd, *et al.* organizational change for corporate sustainability: A guide for leaders and change agents of the future (2nd ed.) Taylor and Francis, 2007. ISBN 9780415287401.
5. Extention.iastatee.edu. Carbon sequestration/ Integrated crop management.[online] Available at: https://crop.extention.iastatee.edu/car_sequestration [accessed 4], 2018.

6. EPA Our nation's air: status and trends through 2008. U.S. Environmental Protection Agency.EPA-454/R-09-002, 2020.
7. Redclift ME. Sustainable development: exploring the contradictions. Methuen, London, 1987.
8. Royaston MG. The modern manager in the human environment. Paper presented to symposium on Malaysian Environment, ECAM Complex, Penang.16-20 September (memeo), 1978.
9. <https://www.earthreminder.com/global-warming-causes-effects-prevention/>
10. <https://public.wmo.int> Greenhouses gases.
11. Uehara Thiago Hector Kanashiro *et al.* "Presquesasemgestoaoambiental: analysis de suaevolucaona Universidade de Sao Paulo. Ambiente and Sociedade,2010;13(1):165-185.
12. UN Global Compact,' Blueprint for corporate sustainability Leadership,' "UN Global Compact Office, 2010, 2-12.