

## **Climate Change and Carbon Sinks: A Global Issue**

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**ABSTRACT:** Climate change and carbon sinks are very important issues in today life that should be discussed in details. Because day by day climate changes and is warming by the effects of uses of natural resources such as fuel, coal and deforestation which is very dangerous for now and will be disaster for upcoming years. To decline the climate changes can be possible by various methods such as reducing the usage of natural resources which can be possible by reuse of used materials to create an international movement and agenda to force or at least encourage world industrial countries and leaders to make international rules to minimize climate change and to inject the idea of plant more and more in people by help of world media to improve carbon sinks by plantation. These preventive methods such reuse will result in declining the use of natural resources like deforestation which results in minimizing the climate change and to maintain the level of carbon sinks high which very helpful, possible, acceptable and applicable. If the world leaders agree on single rules it helps to bring new paths to control the global warming. Furthermore, media has a big rule to encourage and absorb the attention of people on the method of plant more and more which results to control the climate and improve the carbon sinks.

**Keywords:** Carbon sink; climate change; deforestation; natural resources

### **INTRODUCTION**

Annually deforestation has risen to dangerous levels. Deforestation is cutting down of forest and trees, many people don't know how much problems can occurs and ecologically system gets upset. Trees and plants on a forest can help to supply an alternative source of fossil fuel. When a forest is cut down the whole cycle suffers because the forest acts as a "carbon sink", the climate will change and global warming increases.

Climate change is one of the greatest concerns in today's life. Climate pattern of an area shapes the life style, livelihood and culture of an area. Most of the world population experience the impact and effects of climate change in their daily life through variation in annual precipitation, temperature and sea level over long time span, or by the increase in intensity and frequency of floods, storms, fires, cyclone, heat waves, droughts and epidemics (Derbyshire, Owen., 1997).

In addition, a carbon sink is something the traps carbon and keeps it from contributing to the growing atmospheric concentration. Forest are the main natural protectors against increasing carbon dioxide. Which this carbon dioxide is also absorbed by the trees and plants for their food production by the process of photosynthesis. This process converts atmospheric carbon dioxide into oxygen and water.

Higher temperature will very likely reduce livestock production during the summer season but these losses will be partially offset by warmer temperature during the winter season (Backlund et al., 2008). For developing nations specially industrialized countries like USA, carbon sequestration through and use changes could arguably be part of a cost effective portfolio of short term strategies (Stavins 1999). Global climate

change policy portfolio will depend upon geographic, institutional and economic characteristics of countries and key local characteristics of forestry and land use particles (Rechards et. al. 1997).

### **CARBON SINKS**

Carbon sinks consist of two main components: forests and oceans.

**1. Forest:** The main natural source that can decrease the concentration of carbon dioxide from the atmosphere. Plant are autotroph which are able to make their own food by the help of photosynthesis. Plants take up the atmospheric CO<sub>2</sub> and react it with water and other essential component in the presence of sunlight and release oxygen.

Photosynthesis can be represented using a chemical equation:



Uncontrolled deforestation, industrialization, transportation leads to decline in the concentration of store carbon in forest.

Before industrialization, tropical forest cover 17 million square kilometers of earth's plane area today the number is down to 10 million square kilometer that is a loss equivalent to the area of Australia (Sours: NASA). Forest removes about 30% of the CO<sub>2</sub> present in the atmosphere which shows an amount of 10.8 Giga ton out of total 36 Giga ton produced by human.

**2. Oceans:** The sink of carbon by oceans is about 9 Giga ton which is 25% of total CO<sub>2</sub> produced by human (Sours: NASA). When carbon concentration increases in oceans it leads to acidification which results in major destruction in marine life. By deforestation,

climate will change and it result in changing the big forests in deserts like Savanna desert, Africa where as in oceans the living system get disturb and the carbon fixing capacity of the zooplankton and plankton become low.

## CONCLUSIONS

By reusing of materials we can decrease the usage of natural sources specially by reusing of wooden materials we can decline deforestation which results to control the climate change and helps to decline the global warming other than climate change we can control the pollution specially air and water pollution . Another way that we can control the deforestation effects is reforestation which is the natural and international restocking of existing forests and woodlands that have been depleted, usually through deforestation .reforestation can be used to rectify or improve the quality of human life by soaking up pollution and dust from the air, rebuild natural habitat and ecosystems, mitigate global warming since forests facilitate.

A similar concept, afforestation, another type of reforestation, refers to the process of restoring and recreating areas of woodlands or forest that may have existed long time ago but were deforested or otherwise removed at some point in the past or lacked it naturally. Sometimes the term “re-afforestation” is used to distinguish between the original forest cover and the later re-growth of forest to an area. Special tools like tree planting bars are used to make planting of trees easier and faster.

It is known that not only deforestation but also other reasons are causing climate change like consumption of fuel by vehicles and gages produced by industries by using advance machinery and good treatment it is possible to decrease its effects on climate change.

## REFERENCES

1. Backlund, P., 2008 U.S. Climate change science program and the subcommittee on global change research.
2. Rechards, Kenneth R, Ralph Alig, John D. Kinsman, Matti Palo and Brent Sohngen. “Consideration of Country and Forestry/Land-Use Characteristics in choosing Forestry Instruments to Achieve Climatic Mitigation Goals.” Roger A. Sedjo, R. Niel Samption, and Joe Wisniewski, eds.,
3. Economics of Carbon Sequestration in Forestry, PP. S47-S64. Boca Raton: CRC Press, 1997.
4. Stavins, Robert, N. “The Cost of Carbon Sequestration: A Revealed-Preference Approach.” *American Economic Review* 89 (1999): 994.-1009.