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Commentary

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Carbon sequestration and climate change mitigation

Nianpeng He*

Department of Resources and Environment, University of Chinese Academy of Sciences, Beijing, China.

DESCRIPTION

Carbon sequestration is the procedure that captures and stores the atmospheric carbon dioxide.Carbon dioxide (CO_2) is evidently captured from the ecosystem through biological and chemical processes. Deforestation is one of the major cause for carbon emission into the atmosphere, but forest regrowth is a form of carbon sequestration procedure, with the forests themselves serving as carbon sinks.

Natural carbon sequestration is a cycle that is been passing on this earth for billions of years. It's simply the process by which nature has achieved a balance of carbon dioxide in our atmosphere suitable for sustaining life. Industrial processes where large-scale carbon capture has been demonstrated and is in commercial operations include coal gasification, ethanol production, toxin production, natural gas processing, refinery hydrogen production and, most recently coal- fired power generation.

Anthropogenic activities similar as the burning of fossil fuels have released carbon from its long-term geologic storage as coal, petroleum, and natural gas and have delivered it to the atmosphere as carbon dioxide gas. Carbon dioxide is also released into the environment naturally, through the decomposition of plants and animals. The quantity of carbon dioxide in the atmosphere has been increasing gradually since the beginning of the industrial age, and this increase has been caused substantially by the burning of fossil fuels. Carbon dioxide is one of the very effective greenhouse gas that is, a gas that absorbs infrared radiation emitted from Earth’s surface. As carbon dioxide concentrations rise in the atmosphere, further infrared radiation is retained, and the average temperature of Earth’s lower atmosphere rises. This process is known as global warming

CO_2 sequestration and climate change mitigation

The Kyoto Protocol under the United Nations Framework Convention on Climate Change permits international locations to acquire credit for carbon-sequestration with inside the location of land use, land-use change, and forestry as a part of their responsibilities under the protocol. Such activities consist of afforestation (conversion of non-forested land to forest), reforestation (conversion of formerly forested land to forest), stepped forward forestry or agricultural practices, and vegetation. According to the Intergovernmental Panel on Climate Change (IPCC), forward agricultural practices and forest-associated mitigation activities could make a widespread contribution to the elimination of carbon dioxide from the ecosystem at low cost. These activities consist of forward crop and grazing land management-for instance, extra green fertilizer use to save the leaching of unused nitrates, tillage practices that reduce soil erosion, the recovery of natural soils, and the recovery of degraded lands. In addition, the protection of present forests, particularly the rainforests of the Amazon. It plays a vital for the continuing sequestration of carbon.

CONCLUSION

Carbon sequestration protects carbon dioxide to prevent it from entering the Earth's atmosphere. The idea is to stabilize carbon in solid and dissolved forms so that it doesn't cause the atmosphere to warm.

If enough carbon is sequestered, and emissions reduced, then automatically the greenhouse effect will be reduced in the future, resulting in fewer warmer days as well as less occurrence of drought and other extreme weather cycles associated with climate change.