

# Climate change assignment



The study begins by speaking about the earth's agricultural carbon sink capacity; which is roughly sixty five percent of the notable carbon loss of forty to eighty gigatons of carbon. The study continues to explain the concept of soil carbon sequestration: which is basically the transfer of atmospheric CO<sub>2</sub> into long-lived pools and storing it securely so that it is not immediately reemitted. The rate of soil carbon sequestration, however, depends on various factors- such as soil texture and structure, rainfall, temperature, farming systems, and soil management.

Scientists have spent an innumerable amount of time trying to determine strategies in order to create an influx in the soil carbon pools. Certain strategies that have been able to come up with are- soil restoration in order for the soil's texture, structure and management to be up to par, woodland regeneration, no till farming or direct drilling, nutrient management, improved grazing, water conservation and harvesting, efficient irrigation, agroforestry practices such as forest farming and windbreaks, and lastly growing energy crops on spare lands.

In comparison to the forty to eighty gigatons of carbon loss, a small one ton of increase in soil carbon pool has the potential to enhance food security and ultimately even reduce fossil fuels emissions by 0.4 to 1.2 gigatons a year, in other words by five to fifteen percent of the global fossil fuel emissions.

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