REVIEW ARTICLE

CHANGES IN SOIL PROPERTIES AND CARBON SEQUESTRATION POTENTIAL UNDER INTENSIVE AGRICULTURE AND AGROFORESTRY

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Abstract: Agroforestry has been recognized as a means to reduce CO_2 emissions as well as enhancing carbon sinks although the rice-wheat cropping system increases the green house gases level. Agroforestry is a large sink of carbon and its role in carbon cycles is well recognized. The article reviews the impact of different land use systems on properties such as EC, pH and the carbon sequestration potential of soils. Agroforestry provides a unique opportunity to combine the twin objectives for capturing atmospheric CO_2 to ameliorate environment and, improving the soil nutrient status as well. Soil organic carbon has been recorded abundantly in agroforestry systems than other land use systems. The emphasis of land use systems that led to higher carbon content than other cropping systems can help to achieve net gains in carbon in soils specifically and, significant increases in carbon storage can be achieved by moving from lower biomass land uses.

Keywords: Land-use systems, Agroforestry, Soil properties, Carbon sequestration potential

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