

Session I – Climate Change and Challenges to Ecological and Economic Sustainability
2:30 PM

Impact of Climate Change on Carbon Storage and Burial in Mangrove Ecosystems

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Abstract

Mangrove forests are generally a sink for carbon, which is accumulated in living biomass, chiefly tree stems and roots, both above and below ground. A significant proportion of the carbon in mangrove forests is often buried below ground. The deposition of carbon-rich sediments in mangrove systems can also lead to the burial and potential long-term storage of carbon. The balance between carbon import from and export to neighbouring land and marine environments depends on local geomorphology and hydrology. In this paper we use data from a number of sites in the Asia-Pacific region, including the Mekong Delta, to assess the role of mangrove forests as long term carbon sinks and the possible effects of climate change on this role.