



## **Greenhouse gas fluxes in managed ecosystems: threats and opportunities**

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Managed ecosystems around the world include major sources and sinks of greenhouse gases, as well as very significant C stocks. Changes in net greenhouse gas fluxes in these systems over the 21st century have the potential either to enhance or mitigate global climate change. The 'perfect storm' of population growth, rising food, water and energy demand, and climate change threatens to greatly increase greenhouse gas emissions from managed ecosystems globally, yet myriad opportunities to limit such increases exist. This paper will examine some of these major threats and opportunities, exploring their potential magnitude and discussing ways in which science and policy might combine to provide improved outcomes, both for the ALULUCF sector and for global climate change mitigation efforts as a whole.