



ATS/CIRA Colloquium

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Hosted by Pat Keys

3 p.m. Thursday, Feb. 23
ATS 101 and Zoom

Climate Change Mitigation and Adaptation in Agricultural Systems

Successfully mitigating and adapting to climate change will require major changes across global agricultural systems. Agriculture is responsible for around a quarter of global greenhouse gas emissions, and simultaneously climate change threatens agricultural livelihoods and food security around the world. Climate change impacts on agriculture are not only be determined by changes in climate, but also the ways in which agricultural systems respond and adapt. This presentation will propose that we can separate agricultural adaptation into three different modes: in situ adaptation (i.e., changes in on-farm management), adaptive migration, and changes in infrastructure and support systems. Adaptation modes and mitigation challenges will be illustrated at the national and global scales, focusing on energy use for irrigation, crop and milk yield sensitivity to climate hazards, adaptive crop migration, and water management challenges.

Colloquia page: atmos.colostate.edu/colloquia