## Air Quality, Climate, and Water Implications of Energy and Agriculture Development

Energy and agriculture development can simultaneously affect regional air quality, local water stress, and the global climate. My research utilizes spatial simulations, integrated assessment models, life-cycle analysis, and energy-climate-water data synthesis to inform sustainable and resilient energy and agriculture development strategies. I will use several studies focusing on energy transition in urban China, and inflexible water uses worldwide to reveal some of the underlying synergies and trade-offs among different environmental impacts to capture potential co-benefits while avoiding unintended consequences.

