Xiaodong Chen

- <u>Definitions</u>: My research interests focus on Coupled Human and Natural Systems (CHANS). General research topics include how human activities affect the natural environment, how human livelihood may be changed due to changes in environmental conditions, what are complex interactions among components in human and natural systems, and how human-environment interactions are influenced by policies such as payments for ecosystem services.

- <u>Tools</u>: Approaches for these studies include field measures and household surveys, spatial analysis of remote sensing and geo-spatial data, statistical analysis, and complex systems modeling (e.g., agent-based modeling).

- <u>Types of research questions I ask</u>: I often ask three types of questions. 1) How to explain people's environmental behavior with socioeconomic, environmental and policy factors. Such environmental behavior may include pro-environmental behavior and the participation in conservation payment programs. 2) How to improve the efficiency and effectiveness of conservation payment programs. 3) What are complex interactions among human, nature, and policies.

- <u>Synergistic activities</u>: I have been working with collaborators at Michigan State University, Harvard University, San Diego State University, University of North Carolina at Chapel Hill, and the Chinese Academy of Sciences on the efficiency, effectiveness and long-term sustainability of payments for ecosystem services programs. Findings from our research generated many news media reports (e.g., *USA Today, Wall Street Journal, UPI, CCTV – China's Central Television Network*).

- <u>Example of my disciplinary approach</u>: My research on China's Grain-to-Green Program, one of the largest Payments for Ecosystem Services Programs in the world, found that a community's social norms have substantial impacts on people's decision of participating in the program. Simply by taking account of social norms, more environmental benefits can be obtained from limited conservation budget.