

Research from climate change to global change: challenges and opportunities

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Abstract

In this talk, I will share my personal view of the transformation from climate change science to global change research. I will convene several examples to demonstrate how global change research has become an integrated system science incorporating all the traditional disciplines.

1) Land use in China has experienced dramatic changes in the past and caused serious environmental conflicts as well. Reconstruction of the historical changes will shed valuable insights for the future sustainable planning.

2) Food security is an important global and regional issue and key to global sustainability. An integrated assessment from farm to fork, particularly the impact of international trade, should be emphasized on regional policy making.

3) Geo-engineering has become a popular topic as alternatives to carbon emission cuts when the agreement of reduction among countries failed to meet. However, the debates so far are much more beyond the technical discussion rather focusing on ethics and equity.

By the end of the talk, I am hoping to get across the idea that global change research needs collaborations and provides opportunities from all disciplines.