

## SDC 2018 Annual Meeting Abstracts

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### **Title: Institutions and Retrospective Thinking: Decision-making for Climate Adaptation in Agro-pastoral China**

For farmers whose livelihoods rely on farming and/or herding, the change of climate leaves their livelihoods more vulnerable. Weather insurance is a potential innovative option that might help vulnerable locals to better cope with climate extremes. We conducted field work in two counties of agro-pastoral China to explore locals' interests in weather insurance. Most of households in Ejin horo are covered by agricultural insurance, whereas those in Yanchi have no relevant experience and are among the most impoverished of China. The findings show that the respondents from these two counties have significant differences in terms of their interests in this climate adaptation innovation. Based on household survey data from 22 villages out of these two counties with a propensity score matching method, we show that farmers with limited knowledge and no previous experience of insurance are less likely to purchase weather insurance. We interpret this finding as cognitive process-based retrospective thinking regarding prospective volition during decision-making, meaning that locals make decisions by looking forward to the future, build a logic of the causation of the specific action and possible outcomes by thinking backward to the past, and then make their decisions once this logic convinces them that the desired future can be reached through a certain action. We also find that the institutional context in Yanchi, centered in the implementation of a grazing ban, fails to provide forward-looking actors a secure premise, and thus undermines the willingness of locals to choose innovative options, taking weather insurance as an example here. We could expect this to hinder the poverty alleviation in the county and thus an increasing inequality between Yanchi and Ejin-horo in the long-term. The study suggests that institutions should be designed to facilitate locals' adaptive behavior by providing forward-looking actors a secure premise in order to encourage innovative behaviors to cope with climate extremes, particularly in regard to policies that have impacts on overall livelihood strategies, which may or may not directly relevant to climate adaptation, as their indirect and time-lag influence might be overlooked.