

Title: Climate Change Social Vulnerability Assessment of Indigenous Community: a case study for Sipsong Panna, China

Abstract: Social vulnerability to climate change becomes an increasingly important topic for climate change adaptation and disaster risk reduction. Social Vulnerability Index (SoVI) is an appropriate approach to quantify social vulnerability and is widely used in social vulnerability assessment. However, at present, few efforts are made to assess social vulnerability of indigenous communities. Climate change aggravates many difficulties that are already faced by indigenous communities, making them among the most disadvantaged and vulnerable groups of people to climate change.

Indigenous people possess distinctive culture and a broad range of indigenous knowledge that may contribute their social vulnerability to climate change. However, these cultural factors are intangible and complex. It is difficult to quantify them and capture them in social vulnerability assessment.

Therefore, this research aims to develop a SoVI+ specifically designed for indigenous communities, considering indigenous knowledge and culture as two important elements of their social vulnerability to climate change. This is undertaken using a place-based approach with three indigenous villages in Sipsong Panna, China.

In the absence of a methodology, this research uses a combination of qualitative and quantitative methods. Quantitative indicators are identified through qualitative interviews with key community members in three studied communities and are used to measure indigenous knowledge and culture. Then, the two important elements are added to the baseline SoVI to develop a SoVI+.

The results of the SoVI+ indicate the important role of indigenous knowledge and environmental culture in increasing or decreasing people's social vulnerability to climate change. Some adaptive strategies and recommended actions are proposed based on the implications of the SoVI+. These strategies are detailed, and very specific for indigenous communities, with the consideration of the local context.

By Si Wu, Carbon Management