



## **Research on the resilience of husbandry economy to snow disaster**

Shuang Zhao (1,2) and Yiping Fang (1,2)

(1) Institute of Mountain Hazards and Environment, Sichuan, Chengdu 610041, China (ypfang@imde.ac.cn), (2) University of Chinese Academy of Sciences, Beijing 100049, China

Snow disaster always makes adverse influence on the pastoral economy in alpine area. Resilience theory could efficiently enhance the capacities of resisting disaster and mitigating loss of animal husbandry economy. In order to distinguish the weak parts of existed resilience system and strengthen the construction of disaster mitigating in the source of Changjiang-Yellow River, this paper has developed two methods of comprehensive index and relationship model to measure the resilience from 1980 to 2014. The comprehensive index method is based on the conceptual framework of resilience assessment. And relationship model is derived from the internal relationship between vulnerability and resilience. Through the index system of resilience, this paper also summarizes the mean influencing indicator to husbandry economy resilience. The results show:(1)From time dimension, the resilience of snow disaster in Changjiang-Yellow River is rising with fluctuations. Based on the rate, the changes could be divided into slow(1980-1996) and fast(1997-2014) growing phases. The disaster-mitigating capacity of livestock has been markedly improved; (2)From spatial dimension, the magnitude and frequency of snow disaster change weakly. But the gap of resilience in Changjiang-Yellow River has shrunk in 35 years and the resilience in source of Changjiang is distinctly better than Yellow River; (3)Among all the indicators, snow disaster plays a decisive role in the changes of resilience. The resisting capacity including infrastructure construction makes significant effects on resilience and the reducing measures consisted of income, education and agricultural finance could effectively regulate the level.

Key words: husbandry economy; snow disaster; resilience; mitigation