## **Extended** abstract

The concept of social adaptive capacity indicates the capacity of a society to cope with and adapt to a disturbance in a complex social-ecological system. Although traditional cultural landscape loss due to land abandonment and agricultural intensification has been prevalent in developed countries, comprehensive analysis of the factors which affect adaptive capacity of traditional cultural landscape systems to such losses has not been actively implemented. Moreover, complexity of social-ecological systems requires the assessment of each system with its context, to understand its adaptive capacity to a certain disturbance. How is social adaptive capacity of the traditional cultural landscape systems to disturbances related to traditional cultural landscape loss expressed? How do the system factors affect the social adaptive capacity? This study aims to find the answers to the questions through comparative case studies of Landcare Associations in Germany. Four case Landcare Associations which have been experiencing land abandonment and agricultural intensification were recruited in four different federal states according to the snowball method. Semi-structured interview of the key stakeholders of the associations was used as a principal data collection method. The collected data was qualitatively analyzed with deductive content analysis method. Distinction of coping and adaptation responses and social-ecological system framework served as conceptual frameworks in this study. Management of abandoned agricultural land and setting up TCL elements in currently used areas are implemented as coping responses by all the four Landcare Associations. Adaptation responses of the associations include events, public relation work, education, regional brand promotion, and lobbying work. Some of the associations' responses have the characteristics of both coping and adaptation responses. In addition, vertical and horizontal network structure, enabling operational-choice rules, collective-choice rules that grants decision making power to local stakeholders, leadership and entrepreneurship, trust and reciprocity among local actors, knowledge on a relevant social-ecological system, learning and deliberation processes are identified as principal factors that have positive influence on the responses of the case Landcare Associations and accordingly on their adaptive capacity to the disturbances. The results of this study indicate that in addition to coping responses that represent short-term adaptive capacity and adaptation responses which manifest longer term adaptive capacity, the fit of different responses or within a single response with multiple activities exhibits adaptive capacity that reduces trade-offs between coping and adaptation responses. These results require a holistic view of different responses to a disturbance that takes account of their interactions and fits to evaluate adaptive capacity of a traditional cultural landscape system. Also, as a same factor can have different impact on adaptive capacity according to its interaction with other factors and the TCL system where it is integrated, understanding of influence factors in consideration of the corresponding system's context is called for.

Keywords: Adaptive capacity, Traditional cultural landscape, Social-ecological system, Land abandonment, Agricultural intensification, Integrated landscape initiative, Landcare Association