



## **Navigating the science-policy-practice interface in rural SW China**

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There is growing academic, funder and government interest in developing effective methods of successfully navigating the science-policy-practice interface. The practice of interaction between the science community and policy and practice is often termed 'knowledge exchange'. This involves the two-way co-production of knowledge between researchers and practitioners to improve the usefulness of science for society. We report here on an examination of current knowledge exchange understanding and practice by critical zone scientists in the UK and China, as well as report on surveys of 24 leaders from county to village levels of governance and 312 farmers. The practitioner data were collected in Puding catchment, Guizhou province, China as part of a joint UK-China funded research programme that is designed to help improve the resiliency of fragile karst agricultural landscapes in this region. We asked each group of participants (scientists, leaders (county, town and village) and farmers) about their experience of knowledge exchange, of working with each other and how they would like to learn. These data show that UK based scientists have more understanding and experience of knowledge exchange than the Chinese scientists. They also demonstrate consistencies in the types of KE processes (farm visits) that were most suitable, and variation between these methods and those that we identified as being suitable in the project proposal (e.g. decision support tool). Semi-structured interviews were used to gain greater insight into the science-policy-practice interface, where it was evident that farmers had little or no direct interaction with scientists, where the majority of training is delivered county-level schemes where scientists are appointed to deliver the training. Between village differences in understanding of critical zone science issues and access to training and advice were evident. All practitioners surveyed were very enthusiastic about the science team returning to work with them, and over 50% of respondents in all groups were interested in learning more. These baseline knowledge exchange data will be used to help inform the knowledge exchange activities within the UK-China CZO projects and aid local policymakers in understanding the types of knowledge exchange that the farming community (n=312) are most interested in receiving. More broadly, these data also demonstrate the importance of engaging with key users early in a project, to help shape the types and styles of activities that are used to help co-produce and share science with practitioners.