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Rehabilitation and sustainable use pattern of rocky-desertified land in Southwest China's poverty-stricken karst mountainous areas

A case study in Benggu Township, Xichou County, Yunnan, China

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Abstract

The rocky desert in a karst area directly causes the lack of soil, water and forest, hence leading to the poverty there. In 1990, the villagers from the Muzhe Village in Benggu Township, Xichou County, Yunnan declared a war against rocky desert in an attempt to ask the fields for more yields. They invented a distinctive land rehabilitation and sustainable use pattern called "transforming heaven and earth" that had been practiced in Southwest China's karst areas. The key mechanism of the pattern was to develop terraced fields with well conserved soil, water and fertility by exploding rocks in the fields, building stone walls, gathering more soil,



and improving soil quality and productivity for the fields in combination with building of irrigation facilities and roads, as well as with forestation and agriculture structure adjustment. The purpose of the pattern was to alleviate poverty in the karst areas by improving soil productivity and promoting agricultural development. A typical area was studied with the help of Participatory Rural Appraisal (PRA) and the pattern was carried out there for fifteen years, have produced excellent ecological benefits and good economic benefits. Its application in the area approved that it was a sustainable land use pattern for rocky desert areas.

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