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**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 43937-2024**

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**Specification for exploitation and utilization of water and soil  
resources in karst areas**

岩溶区水土资源开发利用规范

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## Foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting: Please note that some of the contents of this document may involve patents: The issuing organization of this document does not assume the responsibility for identifying patents: This document is proposed by the Ministry of Natural Resources of the People's Republic of China: This document is under the jurisdiction of the National Technical Committee for Standardization of Natural Resources and Land Space Planning (SAC/TC93): This document was drafted by: Institute of Karst Geology, Chinese Academy of Geological Sciences, Guangxi Institute of Botany, Chinese Academy of Sciences, Guangxi Zhuang Autonomous Region, Pearl River Water Resources Commission, Ministry of Water Resources: The main drafters of this document are: Jiang Zhongcheng, Luo Weiqun, Qin Xiaoqun, Hu Zhaoxin, Tu Chun, Lao Wenke, Yang Desheng, Wu Zeyan, Liu Shaohua, Tang Qingjia, Zhang, Tanfeng, Niu, Shuhua, Lu, Hang, Chen, Yaqi, and Wu, Huaying:

In order to implement the national policy of water resource development, efficient use of water resources, land consolidation, soil improvement, soil and water conservation, waterlogging in karst areas This document is formulated to implement relevant regulations and policies and to improve the scientificity and efficiency of the development and utilization of water and soil resources in karst areas: Specifications for the development and utilization of water and soil resources in karst areas

## 1 Scope

GB/T 43937-2024 specifies the exploitation and use of water and soil resources in karst areas. Karst covers a third of southwest China, and it behaves unlike any other terrain: rainfall disappears into the rock rather than running off, so a region with high rainfall can be chronically short of water at the surface, while the soil is thin, discontinuous and easily lost into the fissures beneath it, producing the rocky desertification that has driven poverty across Guizhou, Guangxi and Yunnan. The standard sets the general requirements, then the development and use of karst water resources, their efficient use, land consolidation in karst areas, and the improvement of karst soils, covering the investigation, the design of works, the technical measures and the monitoring and maintenance appropriate to each. It took effect on 1 August 2024.

This document stipulates the development of water resources in karst areas, efficient use of water resources, land consolidation, soil improvement, soil and water conservation, and waterlogging prevention and control: Require: This document is applicable to the development and utilization of water and soil resources, land management, comprehensive control of rocky desertification, and ecological restoration in typical karst development areas in southern my country: It can be used as a reference for restoration, soil and water conservation and other work in other karst development areas:

## 2 Normative references

This document has no normative references:

## 3 Terms and definitions

The following terms and definitions apply to this document: 3:1 epikarst zone The upper part of the karst zone is a zone with a high degree of karstification and strongly developed karst fissures: 3:

2 Land Arrangement Re-allocate the land by removing the stones, leveling the land, filling the land with foreign soil, etc: The process of continuous improvement in the location, area and quality of cultivated land: 3:3 A geological structure that is formed by the combination of aquifers and impermeable layers and can store groundwater: 3:

4 Water-rich section Within the hydrogeological unit, the aquifer is highly water-rich and the combination of water storage structure and geomorphology is conducive to local blocks where groundwater is enriched: 3:5 rocky desertification Under the natural background of tropical and subtropical humid and semi-humid climate conditions and extremely developed karst, the surface vegetation has been disturbed by human activities: The damage has caused serious soil erosion and large-scale exposure of bedrock, an extreme form of land degradation:

## 4 General requirements

1 The development and utilization of water and soil resources in karst areas should be implemented on the basis of hydrogeological survey and land survey, and the karst geological conditions, Characteristics of karst landforms, laws of water cycle and current land conditions: 4:

2 The development and utilization of water and soil resources in karst areas should combine the rational development and efficient utilization of water and soil resources to improve the efficiency of water and soil resource development and utilization: efficiency: