

HEALTH STATUS ANALYSIS AND IMPROVEMENT SUGGESTIONS FOR THE CHANGNING RIVER SECTION IN GONG COUNTY

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Abstract: This study evaluates the health of the Changning River section in Gong County, Sichuan Province, using a comprehensive assessment framework. The evaluation covers various aspects such as hydrology, water quality, physical structure, and biological integrity. Data on water resources, ecological flow, and riverbank stability were collected through field surveys and water quality monitoring. The study reveals that while the river's overall condition is classified as healthy, it faces challenges related to agricultural non-point source pollution, livestock waste, and the operational efficiency of sewage treatment plants. To address these issues, targeted management strategies are proposed, including improving rural waste management systems, promoting eco-friendly agricultural practices, and strengthening sewage treatment operations. The research concludes that while the Changning River maintains a relatively sustainable health status, ongoing management and restoration efforts are necessary to enhance water quality, preserve biodiversity, and ensure long-term ecological balance. This study provides a framework for future river health assessments and offers practical insights into effective river management and protection strategies.

Keywords: Health Status Analysis, Improvement Suggestions, Changning River