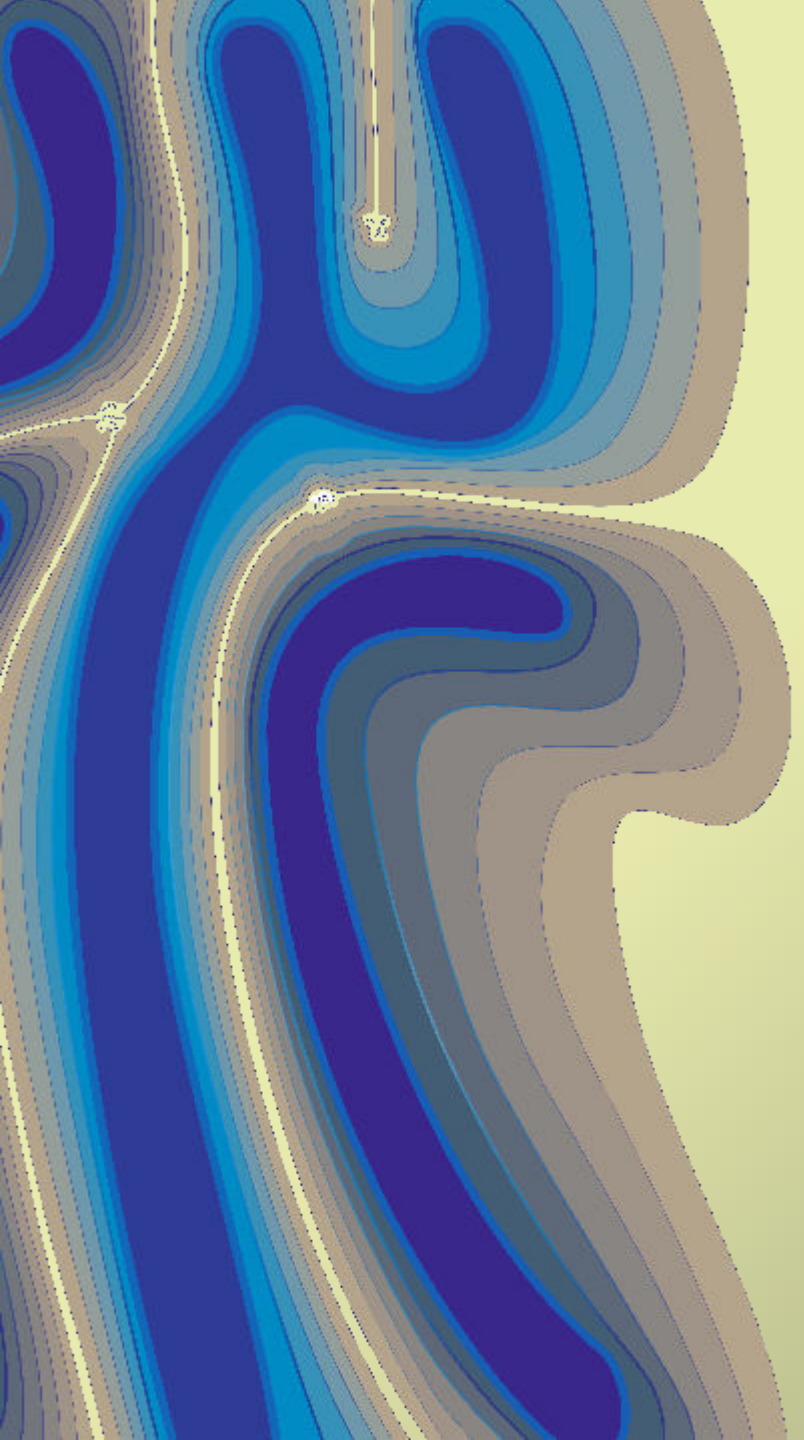


XVIII World Water Congress
International Water Resources Association (IWRA)

Application of decentralized water supply in rural water supply projects in Southwest mountainous areas

-Taking the water supply project in the traditional village of ancient tea garden on Jingmai Mountain, Pu'er as an example

PENG GUIFANG

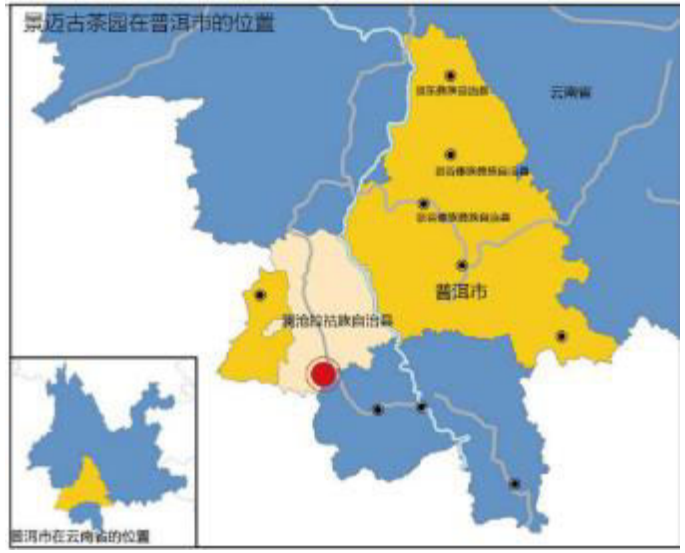
YUNNAN ARCHITECTURAL ENGINEERING DESIGN COMPANYLIMITED

XVIII WORLD WATER CONGRESS
Water for All
Harmony between Humans and Nature
第18届 世界水资源大会

Content

Background


景迈古茶园在中国的位置
北京
云南


景迈古茶园在普洱市的位置
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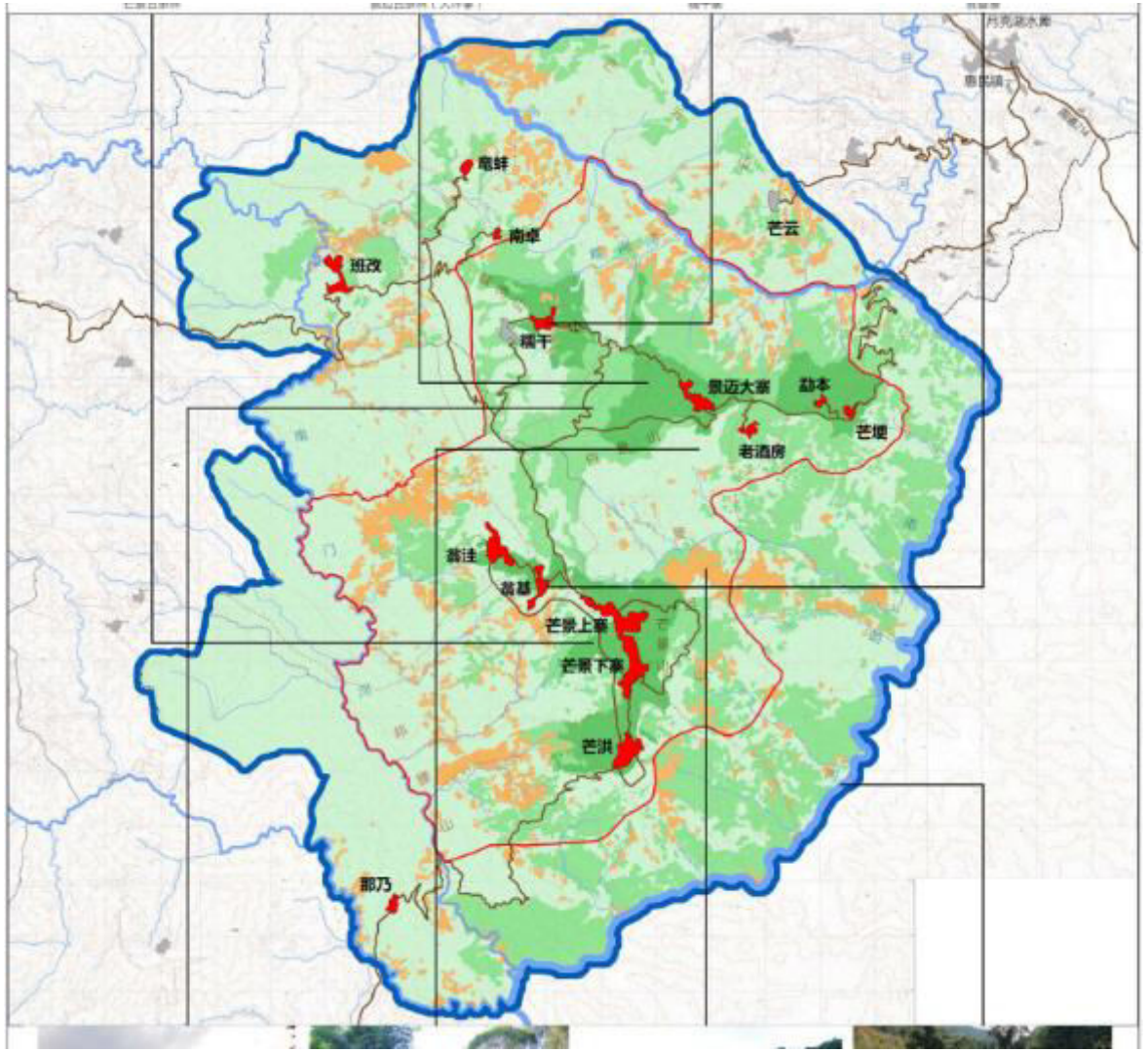
普洱市
景迈古茶园在云南省的位置


亮山
南卓
班改
芒云
福干
景迈大寨
勐本
芒埂
老酒房
翁洼
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芒景上寨

糯岗古寨

中国2022年世界遗产正式申报项目（中国唯一）

美国《国家地理》杂志2022年度全球最佳旅游目的地（中国唯一）

the cultural landscape of Pu'er Jingmai Mountain Ancient Tea Garden is China's sole project in the 2022 declaration of world cultural heritage.

National Geographic's 2022 World's Best Travel Destination (China's Only One)

Background

公司领导调研

项目团队驻村
入户调查

ABSTRACT

Within the context of rural revitalization and integrated development of culture and tourism, the cultural landscape of Pu'er Jingmai Mountain Ancient Tea Garden is China's sole project in the 2022 declaration of world cultural heritage. As a participant in the infrastructure upgrading and reconstruction project, the author is honored to be involved in the construction site located at the core traditional village of the ancient tea garden in Jingmai Mountain, Pu'er City, Yunnan Province. The safety of rural water supply is crucial for the well-being, health, and safety of the people residing in these areas. Constructing rural water supply projects is a fundamental task to implement the rural revitalization strategy, which is of great significance to the government and the Party. This construction project shares common characteristics of rural water supply engineering projects in southwest mountainous areas, such as ethnic diversity, dispersed populations, complex terrain, and substantial altitude differences. These projects usually face challenges related to small construction scale, high and high investment. Despite the industry development trend of urban and rural water supply integration, centralized water supply can have limitations in rural water supply projects in southwest mountainous areas. As a beneficial supplement, the distributed decompression pool water supply method can be used alongside the centralized water supply method, enabling the effective combination of their respective advantages.

ABSTRACT

This paper examines the factors that need to be considered when developing a rural water supply construction plan, such as terrain height differences, water source guarantee, user distribution, residents' wishes, and operation and maintenance. The traditional village water supply project in Jingmai Mountain Ancient Tea Garden in Pu'er serves as an example, and an in-depth analysis of its implementation is presented. The extensive application of similar rural water supply projects in the southwest mountainous area has proven to be a beneficial practice. The implementation of this project has solved the problem of drinking water for local villagers, and with the continued investment of governments at all levels in the construction of agricultural and rural water conservancy facilities, public water services in the vast mountainous areas of Southwest China will continue to improve. This will greatly improve the quality of life for villagers and better meet their growing needs for a better life.

PROBLEMS AND TRATEGIES

Problems in rural water supply projects in mountainous areas

1 Small scale of water supply

2 Seasonal water shortage

3 Water supply is not stable enough

Strategies to improve water supply in rural areas in mountainous areas

1 Take engineering measures to stabilize water supply

2 Standardize the Construction of Water Supply Projects

3 Strengthen operation management and protection

EXAMPLES

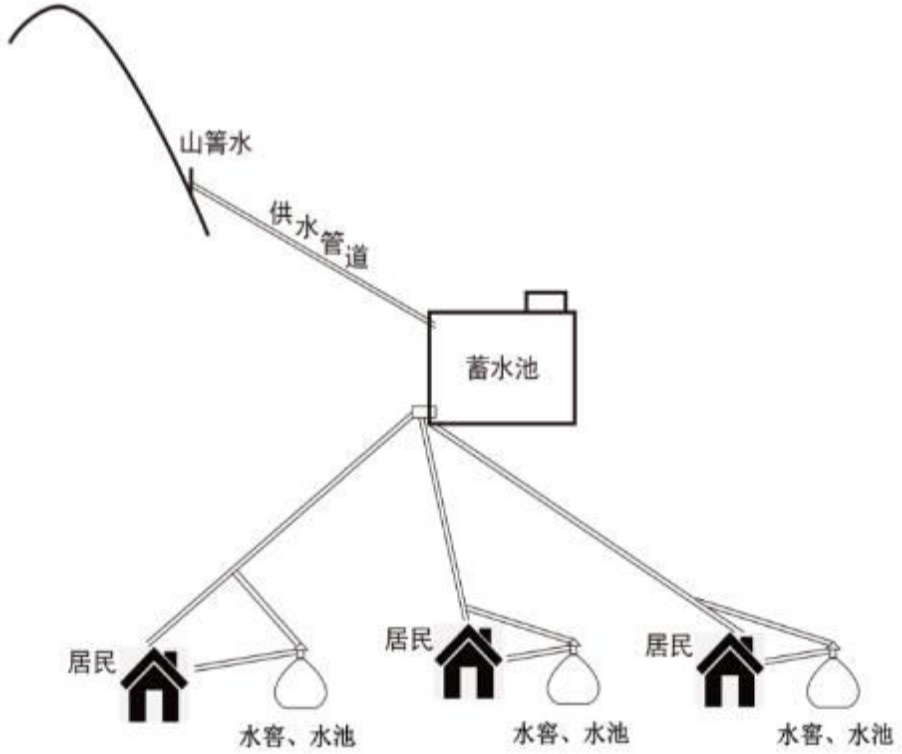


图 1　缺水地区混合供水方式示意图

Fig.1 Schematic diagram of mixed water supply mode in water shortage area

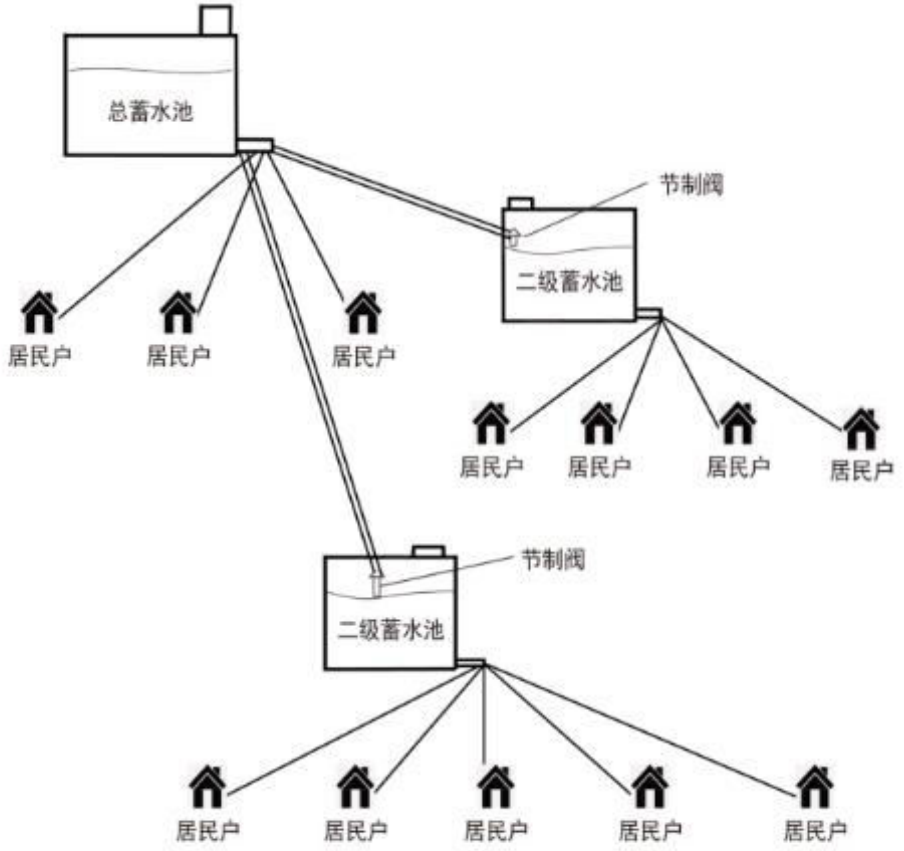
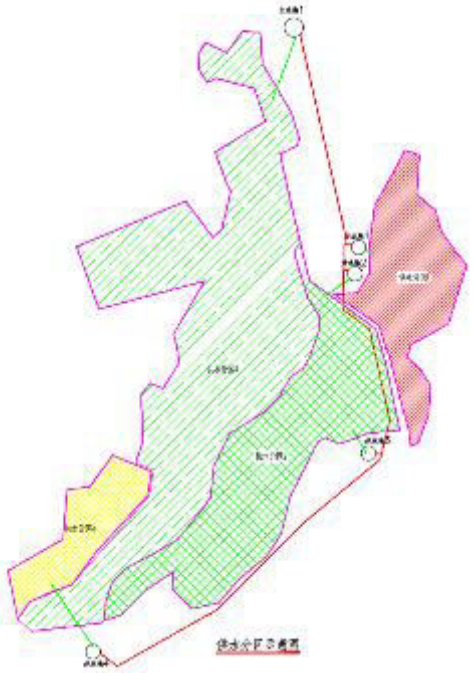
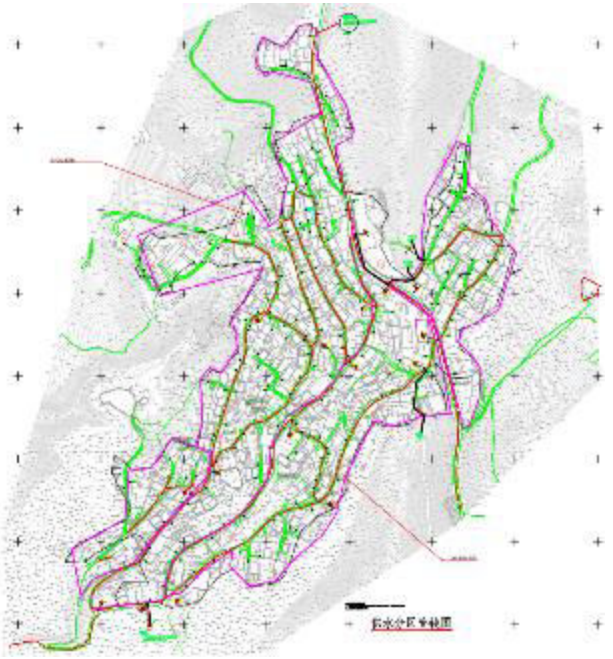


图 2　高落差地区分级供水示意图

Fig.2 Schematic diagram of graded water supply in high drop area

EXAMPLES





Conclusion

The water supply in mountainous rural areas is not only related to the lives of local residents, but also related to the safe development of the country. Departments at all levels combine the actual local conditions to solve the problem of water shortage for rural residents in mountainous areas by organically combining centralized water supply and decentralized water supply, and at the same time organically combining water supply engineering construction and rural sanitation improvement to greatly improve the water supply rate and water quality compliance rate, and improve the degree of water quality guarantee. From the perspective of the goal of building a moderately prosperous society in an all-round way, solving the problem of water supply in rural areas in mountainous areas is not only an economic act, but also a political act. For areas with water supply problems in mountainous areas and rural areas, government departments should take General Secretary Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era as a guiding theoretical guide, actively improve water supply safety standards, consolidate water supply achievements, and strive to bring tangible benefits to the broad masses of the people.

Thanks for your attention