

Research on the market transaction model of water rights in mega-city

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Objective

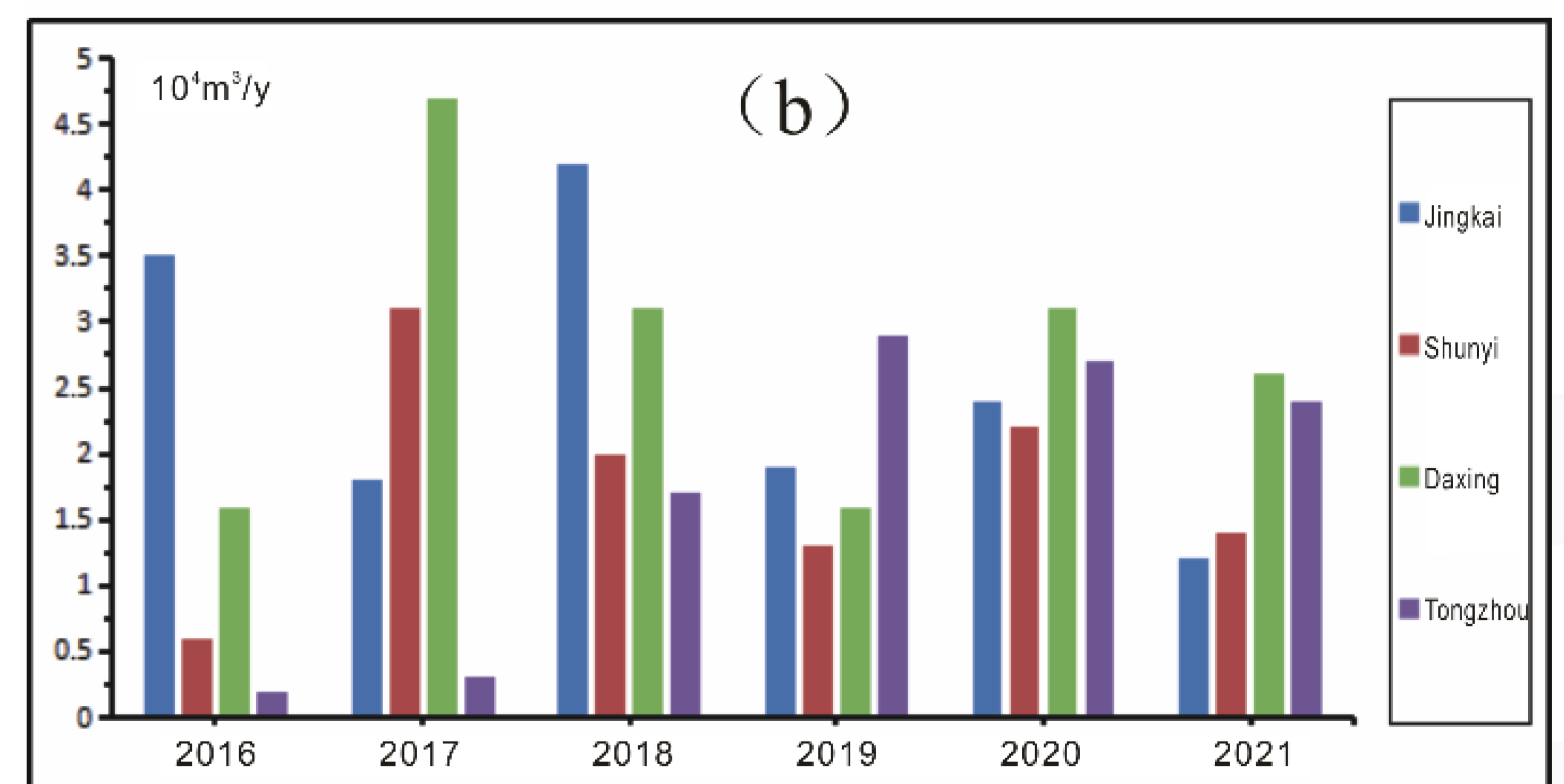
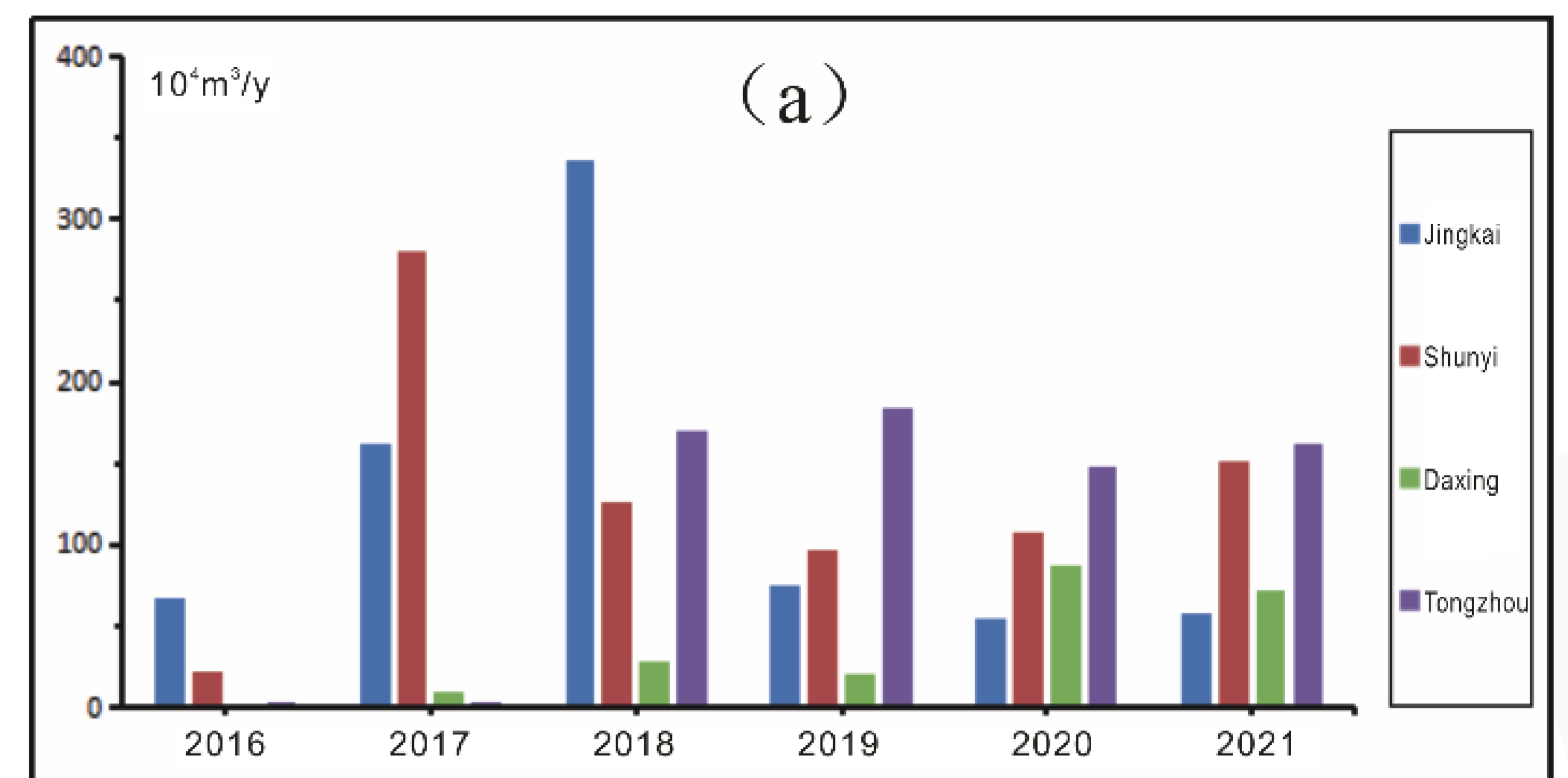
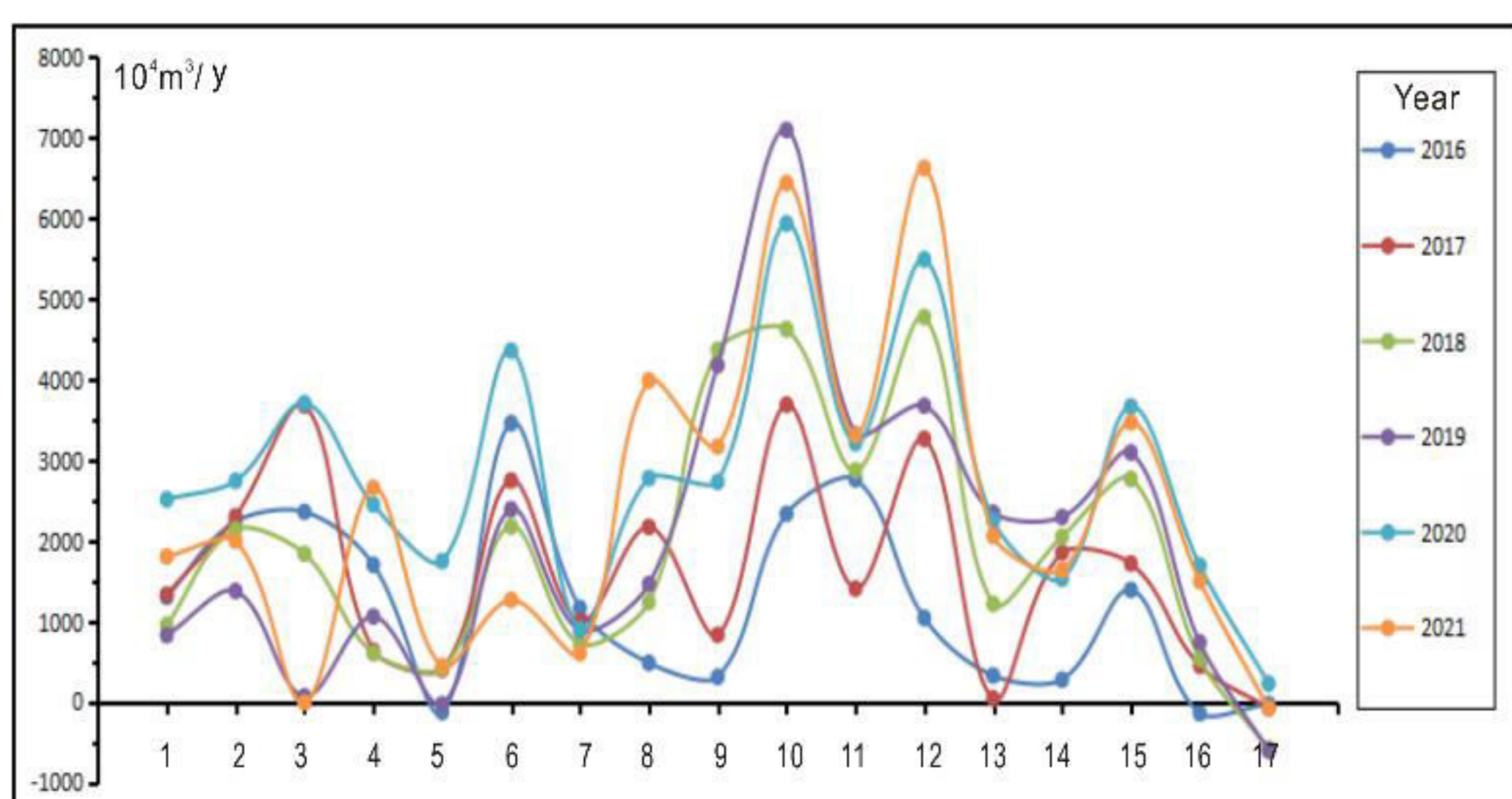
Market transaction of water rights is the specific initiatives to implement the decisions and deployments of the central and municipal governments, to firmly grasp the new spirit of the 20th Party Congress of China on promoting high-quality development with "Government-Market Synergy in Water Resources Management" and promote the new strategy of market transaction of water rights on "Fourteenth Five-Year Plan" in the Fifth Plenary Session of the Nineteenth Central Committee. As a mega-city with serious water shortage, Beijing must insist in taking water conservation as the fundamental way out, combining the urban water source background and demand, taking the public water supply network as the main water extraction method, analyzing and exploring the city's water right trading mode according to the key elements of "demand", "supply" and "good environment", and proposing the policy system of market-priced trading. Ultimately the research provide reference for the development of market-based water right trading in Beijing.

Methods

This study uses basic data from Beijing water analysis combined with interpolation analysis and dynamic process simulation to study the potentially active areas and trading potential of water rights trading in Beijing. After calculation, four regions with high potential and trading volume of water rights trading were selected as the main research subjects of this study.

Results

Difference between actual water consumption and planned water consumption by region in Beijing, showing the potential areas for water trading in Beijing



The Potential analysis of Beijing Water Rights Trading Market

Conclusions

- The city has a total of 1,342 water users above the scale (annual practical volume of 10,000 square meters or more) over the plan, with a total of 15.73 million square meters over the plan. Tongzhou District, Daxing District, Shunyi District, and Economic and Technological Development Zone have a larger number of water users over the plan and a larger average amount of water over the plan.
- The four areas with a large number of over-planned water users and a large amount of over-planned water were selected as the focus, and the water consumption situation of over-planned users of different water source types and the implementation of the planned water consumption and water extraction permit for users with self-supplied wells were analyzed.
- Market-oriented trading of water use rights is the result of market-oriented choice to improve both water use benefits and water use efficiency, and can effectively promote the rapid and efficient development of Beijing's economy and society.