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Evaluate the coping range of water supply system under climate change in LanYan plain

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Climate variability has resulted in more frequent extreme hydrological events which may further greatly influence water resources systems in recent years. Climate change may cause more climate variability, thus the threat can't be neglected. This study will focus on evaluating the impacts of climate change on non-reservoir water supply system in the LanYan basin.

In the past, the process of evaluating climate change impact starts from the high-uncertainty climate change scenarios and induces the high-uncertainty results. This study proposes an inverse process of evaluation to strengthen the reliability and confidence of the adaptation strategies and actions. The process is to (1) evaluate the coping range or the critical thresholds of water supply system; (2) evaluate the strengthening coping range or the critical thresholds for different adaptation strategy under different climate change scenario. The coping range or the critical thresholds of the system will be evaluated and applied in the assessment of climate change impacted water resources system through the optimization model of conjunctive operation with water resources. The purpose of this study is to determine the risk of water supply system of the LanYan plain under different adaptation strategies. Further, the assessment model of non-reservoir water supply system will be developed and strengthened.