

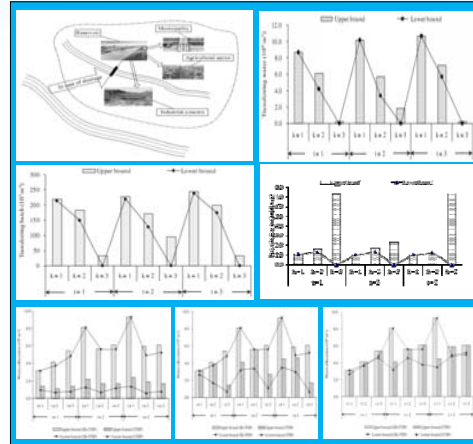
# Research on Inventory Theory-Based Regional Resources Optimization Methods

Regional resources are facing growing population and economy, serious shortage, environmental pollution and other challenges. Suo's efforts are focusing on the regional resources transferring and allocation based on different inventory methods and uncertain optimization technologies, which can provide specific resources transferring and allocation schemes with avoiding shortage risk.



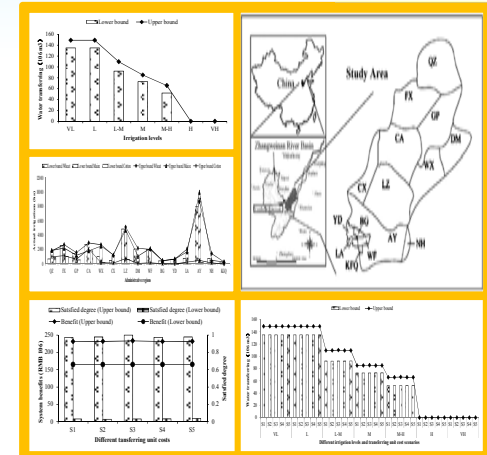
## Inventory-theory-based interval-parameter two-stage stochastic programming

- **Reflect:** multiple uncertainties & pre-regulated policies
- **Provide:** transferring schemes (batch and period)
- **Avoid:** unnecessary waste of money and time
- **Maximize:** system benefit under uncertainty



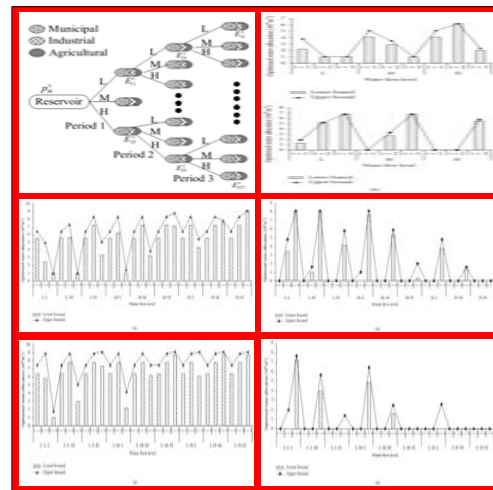
## Interval fuzzy two-stage stochastic inventory programming

- **Handle:** multiple uncertainties and interactive uncertainties
- **Provide:** specific recourse actions and transferring schemes
- **Analyze:** series policy scenarios under varied economic punishments
- **Provide:** system benefits and related decision schemes under different satisfied degrees



## Inventory-theory-based inexact multistage stochastic programming

- **Identify:** system dynamics and different uncertainties
- **Provide:** reasonable transferring schemes
- **Allow:** exhaustive analysis of different policy scenarios
- **Avoid:** water shortage risk under uncertainty



## Inexact Inventory Nonlinear Programming

- **Provide:** the reasonable procurement price and batch
- **Identify:** the practicable procurement scheme
- **Reflect:** multiple uncertainties, multiple supply options
- **Generate:** global optimum and robust solution

