



# Thuc Phan

MSc Environmental Management

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<https://scholar.google.com.au/citations?user=3ieDSewAAAAJ&hl=en&authuser=1>

## Summary

This research project aims to assess the vulnerability and adaptation potential of a coastal water supply and demand system to climatic and non-climatic drivers through an integrated top-down and bottom-up approach. A system dynamics model will be applied as a top-down approach for assessing the vulnerability of the system over time. The results of vulnerability assessment will be used to guide multi-level stakeholders in identifying appropriate adaptation options which can reduce the vulnerability of the system. Bayesian decision networks will be used a bottom-up approach to prioritize cost-effective adaptation options through participatory processes. Selected adaptation options will then be tested in the system dynamics model to determine their feasibility and efficacy in reducing the vulnerability of the system. Da Do basin in Hai Phong city, Vietnam, will be used as a case study to determine the feasibility and performance of this integrated framework approach in vulnerability and adaptation assessments.

## Research Expertise

- Wildlife management and conservation
- Water resources management
- Systems thinking, Bayesian networks and systems dynamics modeling