

## PPP – a risk approach in the water sector

### Summary

**Objective:** This thesis provides a theoretical and managerial contribution on how PPP can address risk in the water sector in developing countries. Three thesis objectives support the results. The first identifies literature contributions, the second is related to the perception of risk management by different stakeholders, and the third concerns the risk approach in PPP water contracts in developing countries.

**Design:** A hybrid method combining systematic, semantic network, and narrative analysis review of previous research supported the first objective. To answer the second thesis' objective, a semi-structured interview using quantitative and qualitative analysis identified the perception of risk management in PPP water projects. To support the third objective, a case study provided interesting insights regarding the risk approach in PPP contracts.

**Findings:** From a total of 122 studies, the first objective, identified five main PPP research domains: risk management, contracts, infrastructure, governance, and financing and tariffs. Twenty-five risk factors with high impact were established as a result of the semi-interviews. The top-five critical risk factors are related to political interference, no baselines for performance measurement, unfavourable global private investment climate non-payment of bills and water asset condition uncertainty. The case study showed how PPP contracts can fail for not having risk management concerns and we have underestimated risks as conflicts between partners. The traditional risk management approach in PPP contracts showed that there is space to improve. The key risk indicators approach was proposed.

**Originality:** Research outputs showed that PPP laws and sector legislation should be permanently adapted to the local needs. The traditional risk management framework fails to provide a solution. The key risk indicators introduce a paradigm shift, which provides useful guidelines for future studies.

### Keywords

PPP, water sector, developing countries, risk management.



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