

IMPROVING THE MONITORING EFFECTIVENESS AND EFFICIENCY FOR ENVIRONMENTAL FLOWS PROGRAM

USING FLOW-MER AS A CASE STUDY

XIAOYAN DAI

University of Melbourne, Australia

Unlock insights into environmental flow programs' success and challenges, promoting the sustainable water management.

Abstract

In response to the urgent global need to stop biodiversity loss, environmental flow (e-flow) programs have gained prominence as a means to sustain ecosystems and livelihoods. E-flow represents water releasing from a dam or weir to maintain downstream river health, and the health of the environment. However, decisions about environmental management are driven predominantly by the people's perspectives and values, and effective monitoring of these programs often hindered by resource limitations and complex human factors. Past research has indicated that scientists, managers, and other individuals tend to approach things with different perspectives. Capturing this knowledge using methods like interviews, discussions, and participatory observation can yield invaluable insights into project performance and opportunities for enhancement.

This study focuses on the Murray-Darling Basin's Flow Monitoring, Evaluation, and Research program (Flow-MER) as a case study. Through semi-structured interviews with and a subsequent survey, the research uncovers stakeholders' perspectives on monitoring design, and to evaluate the projects' effectiveness. Moreover, by comparing perception differences between scientists and managers, the research enhances the understanding of e-flow monitoring and its challenges. Ultimately, this research contributes to the development of efficient e-flow strategies, fostering both biodiversity conservation and sustainable water resource management.