

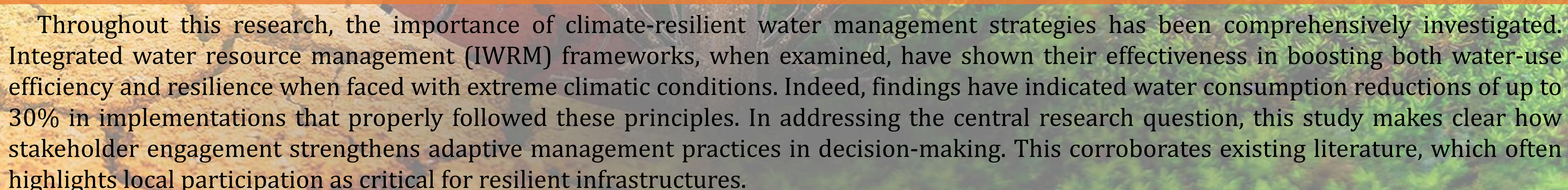
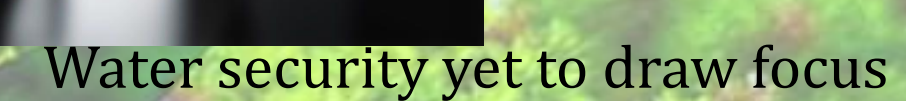
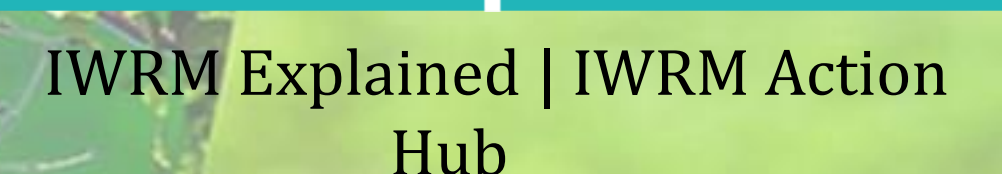
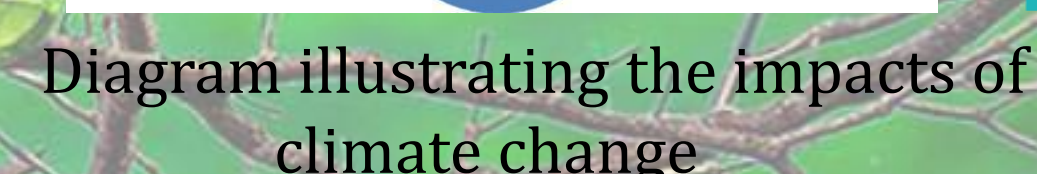


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The present research delves into climate-resilient water management strategies, particularly effective ones that deal with growing water scarcity due to climate change. The focus is on innovative practices boosting water sustainability in regions most at risk. A thorough analysis, incorporating qualitative case studies of successful water management alongside quantitative assessments of water resource availability and usage, pinpoints key strategies adaptable for mitigating water stress impacts. Notably, the research reveals that holistic water governance frameworks, when implemented, and advanced technology integration in water conservation demonstrably improve both water efficiency and community health, especially in healthcare environments hard-hit by water scarcity. These findings carry profound implications, suggesting that better water management isn't just about environmental sustainability, it also boosts public health resilience by ensuring access to safe and reliable water.

The pressing need to tackle water scarcity, made worse by climate change, means we need strong research methods to work out effective, climate-resilient water management strategies. A key question here is how we can adapt current and new water management methods to make sure we have enough water, even with increasing climate changes. This study intends to systematically look at different ways to find, assess, and improve water strategies that are resilient to climate change. It will focus on bringing together both number-based and descriptive approaches that include what stakeholders think, as well as technical evaluations (Chavula P. 2025). To do this, the aims are to profile existing water management practices across different places, conduct case studies showing successful adaptation strategies, and explore the socio-economic effects of these practices.

The effective management of water resources, particularly when facing increasing climate variability, hinges on solid data collection methods that can usefully inform both policy and practice. The central research challenge, given the complexities of water systems and climate's shifting influence, is identifying optimal methods for gathering detailed data, reflecting both measurable metrics and stakeholders' qualitative perspectives (Chavula P et al., 2025). This study, aiming for a multifaceted understanding of climate-resilient water management strategies, will combine primary and secondary data collection – surveys, interviews, focus groups, and geospatial analysis. The goal? To gather quantitative data concerning water usage, availability, and quality, while also capturing local communities' subjective experiences and perceptions of water management practices (Yang S-R et al., 2024).



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