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Assessing the current capacity of water institutions in rural Rumphi to deal with floods and drought

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Clean water is very important for our health, communities, and economy. Understanding resilience of water infrastructure and adaptive capacity of water institutions are central in ensuring sustained access to potable water in the context of increased frequency of floods and droughts.

This study was carried out to assess the current capacity of water institutions in rural areas of Rumphi District, Northern Malawi in dealing with floods and droughts by looking at: 1) the effects of current trends of floods and droughts on local water institutions focusing on water supply and infrastructure; 2) the adaptive capacity of water institutions - what they are doing in building climate change resilience into water infrastructure. Nkhamanga gravity water scheme in rural Rumphi was used as a case study. Rumphi district is vulnerable to multiple climate related stressors and people live in risk-filled environment prone to hazards such as floods. Due to its position within the rift valley, Rumphi is a disaster prone area such that almost every year the district experiences disasters.

Key Informant interviews and a semi structured questionnaire were used to investigate the officers' knowledge and perceptions of climate change and variability, how drought/floods are perceived by water officers, how the water institutions and the operation water supply infrastructure are impacted by drought/floods and how the water institutions cope with these impacts. Interviews also helped find out how the water institutions prepare, respond and have adapted to floods and droughts and the resilience of water supply infrastructure. All these were employed to identify the challenges and problems encountered in the process of implementation so as to map out possible solutions to those challenges.

The findings of the study show that the establishment of the Nkhamanga Water Users Association (especially the new Local Utility Operator) has greatly improved the operations and water supply services of the scheme, however there is still need for infrastructure rehabilitation and expansion to allow supply of potable water to the uncovered areas and also ensure resilience of water infrastructure to floods and drought.