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GI:DRM
Global Initiative
Disaster Risk Management

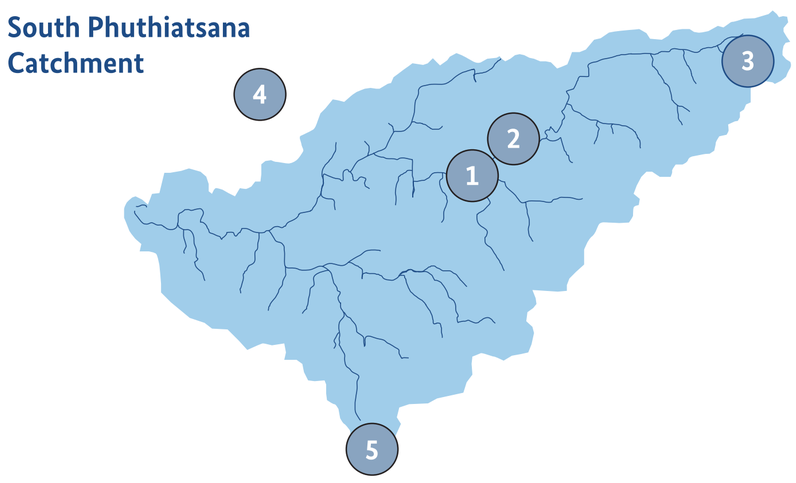
In cooperation with partners worldwide, this publication has been developed by the Global Initiative on Disaster Risk Management (GIDRM), a project commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Gmbh.

Lesotho

Water is Lesotho's principal natural resource, vital for a wide range of sectors and critical infrastructure services, such as energy, agriculture, and economic production (i.e., textile industry). Critical water infrastructure, such as the Metolong dam, plays a crucial role in increasing access to water, improving the reliability of water supply and therefore, in supporting economic growth.

Lesotho is expected to enter a period of water stress by 2030. Erratic weather patterns and drought, unsustainable land-use methods, and increased water demand due to a growing population, put a toll to the country's water resources and negatively impact the functioning of critical water infrastructure such as the Metolong dam. It is therefore crucial to understand how to make critical water infrastructure more resilient, to ensure water supply in the long term and enable sustainable development.

Scope of the assessment



1. Dam Scale	Dam and associated local infrastructue
2. Reservoir Scale	Impacts to downstream and ajacent to reservoir water users
3. Watershed Scale	Exploration of sedimentation issues; Qualitative exploration; Recommendations for future projects
4. Water users, stakeholder Scale	Qualitative exploration of potential implications of climate change on countrywide water supply, water users and stakeholders
5. Transboundary Scale	Lesotho Highlands Water Project (LHWP) treaty

PIVEC Protocol

The application of the **Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol** in Lesotho, in partnership with the Climate Risk Institute (CRI), aims to provide a better understanding of the service reliability of the Metolong dam system under changing climate conditions and identify potential consequences of varying water service levels for key user groups.

The assessment forms the basis to evaluate implications for sustainable water provision (thereby, a contribution to sustainable development). It thus provides a critical tool to support decision-making and risk-informed planning and implementation processes.

1 Activities from Lesotho for Risk-Informed Action

Policy and Regulation

Based on the climate and disaster vulnerability assessment of the Metolong dam and the better understanding of systemic risks to the water sector in Lesotho, two national level policy documents have been reviewed and the inclusion of risk considerations has been promoted. Both the Lesotho Water Act as well as the National Strategic Development Plan are now risk-informed.

Organisational Arrangements

Water resource management requires a multi-stakeholder approach and often concerns more than one country. To support organisational arrangements at the transboundary level, the results of the PIEVC assessment were also brought to the regional river basin commission – ORASECOM.
The goal is to advocate through the river basin commission for risk-informed development activities in the water sector.

People, Culture and Environment

The project used an ecosystem-based approach to embed the infrastructure assessment in a more comprehensive understanding of the environment, incl. the watershed, the catchment, the reservoir, and the neighboring communities with their agricultural and land use practices. Community counselors took part in the PIEVC assessment process to highlight the community perspective on vulnerabilities regarding water supply.

Partnership and Collaboration | Knowledge and Information

The PIEVC climate and disaster risk assessment was conducted through a participatory approach, which considered the perspectives of a variety of actors such as decision-makers, local communities, practitioners, infrastructure operators and government representatives. Through the process, partnerships have been formed on identified synergies that will continue to exist after the assessment process. The knowledge of all involved stakeholders has been increased and available information has been shared across different entities. Through this process, capacities for risk-informed decision-making beyond the Metolong dam infrastructure have been strengthened.

A highlight was the site visits from SADC delegates, especially the DRR Unit, to understand the implications of the PIEVC assessment and RID approach for other SADC member states.

2 Fields of action to promote RID

FOCUS:
Assesment of climate and disaster risks in the water sector using the PIEVC protocol

Transnational cooperation

Resource-managment

Water