

## Scoping and understanding of vulnerability in the context of WASH, ethics and disaster management

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### **Abstract:**

Disaster management and disaster risk reduction are multidisciplinary in nature and require integration of knowledge from various fields of social and natural sciences. Trans-disciplinary nature of disaster related topics, such as climate change and rapid urbanisation, requires the use of established, as well as novel approaches to understanding of concepts of vulnerability. One of such examples in the understanding of the water, sanitation and hygiene vulnerability (WASH). WASH describes a set of conditions which control the hazards and risk from infectious diseases. Even though implicitly belonging into the field of vulnerability, WASH vulnerability has not historically been evaluated as part of the vulnerability assessments. In this article, we aim to introduce a criterion for the assessment of WASH vulnerability of four Southern African countries. Based on open-source databases, the developed criterion allows for the comparison of WASH vulnerability among Angola, South Africa, Namibia and Botswana. Results of the calculations are explained in the context of the legislation and other tools used to manage WASH challenges in the countries. Ethical considerations and the links of WASH to human rights, such as access to healthcare, water and sanitation, are evaluated. The ethical standards of indigenous community from Southern Africa are used as reference documents to analyse the efficiency of existing strategies and to propose new strategies.

**Keywords:** WASH, adaptive capacity, values of ethics