

## **Water resource management and drought risk (a case Study of Yemen)**

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Semi-arid to arid regions like Yemen are known for the absence of water as well as the competence of the people to compensate the water deficit and to adapt their lifestyle to those conditions. The area of investigation is located in the mountainous environment of the Ta'izz area (lat. 13° N, log. 44° E). The climatic classification is done as base for the regional drought definition. Special attention is given on the temporal water availability, water requirements for agricultural purposes and groundwater recharge.

Based on comprehensive GIS techniques land use schemes are evaluated according to their effect to decrease the drought risk. The results show clearly the impact of human land use management on a local scale. Due to this human impact the drought risk varies within the same hill slope significantly. It points out the strong impact on water management schemes on the spatial water availability.