

Monitoring of Flash Floods in Oman

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Oman is located in an arid and semi-arid area, in the south eastern part of the Arabian Peninsula. Steep topography, bared land, narrow wadis and less vegetation all are factors putting Oman under risk of flash floods. Oman has less annual average rainfall which is 50 mm, with low annual average runoff. The runoff lasts for 2 to 6 hours resulting in flash floods associated with a lot of damages.

Since early seventies, monitoring of water resources has been started in Oman. Now the hydrometric network consists of about 4693 stations, 151 of these are wadi gauging stations. They measure both volume and peak discharge. Around 6 of these stations recorded back to 1974.

Monitoring of flash flood includes field measurements, slope area measurements and cross section evaluation and office work which includes data processing, data analysis and finally computation of flood peaks and flood volumes. The aim of this poster is to present an overview of the monitoring network in Oman in particular the wadi gauging stations and its role in risk reduction and management of flash floods.