

2-Definition Of Drought

Drought studies have been suffering from the lack of consistent methods for drought analysis. The first step in a drought analysis would be to define the drought event.

Scientists have only agreed on very general definitions of a drought, e.g. Beran & Rodier (1985): "*The chief characteristic of a drought is a decrease of water availability in a particular period over a particular area*". Yevjevich (1967) claims that the lack of

general acceptance of a precise and objective definition of drought, has been one of the principle obstacles to the investigation of drought. It is important to be aware that different definitions might lead to different conclusions regarding the drought phenomenon. For instance, it is possible that rainfall statistics summarised over a calendar year indicate no drought, whereas the moisture supply in the growing season does.

It is important, however, to stress that because drought affects so many sectors in society,

there is a need for different definitions (Wilhite & Glantz, 1985). The particular problem under study, the data availability and the climatic and regional characteristics are among the factors influencing the choice of event definition. Wilhite & Glantz (1985) found more than 150 published definitions of drought, which might be classified in a number of ways. Some of the most common drought definitions are summarised in Tate & Gustard (2000), Demuth & Bakenhus (1994) and Dracup *et al.* (1980).

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In this report different classification systems are summarised. A separate chapter discusses at-site drought definitions. These include definitions applicable to quantify temporal and spatial variations in meteorological droughts in terms of lack of precipitation, as well as hydrological droughts in terms of streamflow and groundwater deficits. A separate section addresses water resources management aspects. Droughts are regional in nature and regional drought event definitions are discussed separately. The report is a contribution to the European Commission supported project "Assessment of the Regional Impact of Droughts in Europe" (ARIDE). The event definitions chosen within specific activities of the ARIDE project are therefore described separately, including a discussion of their suitability

in general. Emphasis has been paid to restrict the number of definitions applied within the project. If the event definition requires subjective choices to be made, recommendations are given. Some concluding remarks are given at the end.(H.Hisdal& L.M. Tallaksen).