

SOFTWARE TO COPE WITH SPATIAL DISTRIBUTION OF DROUGHTS

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Droughts are extreme events characterized by persistency in time and large-scale effects. Spatial distribution of droughts is therefore a relevant characteristic for drought analysis and the regional approach leads to a more complete tool for drought studies.

The evaluation of regional drought can be worked out by a statistical model that links variables to the spatial evaluation of the events, for the quantification of drought risk of occurrence.

Several key points were retained for the software development: the easy and direct application of all calculations, the several types of input data, the data verification, results visualization and the fast performance and proper use of memory and system resources.

The software developed for regional drought analysis is a tool for drought-spread evaluation and the visualization of the spatial distribution of drought events. Statistical tools comprised include modules for events simulation and drought risk evaluation.