

An observation-modelling framework to distinguish between water scarcity and drought

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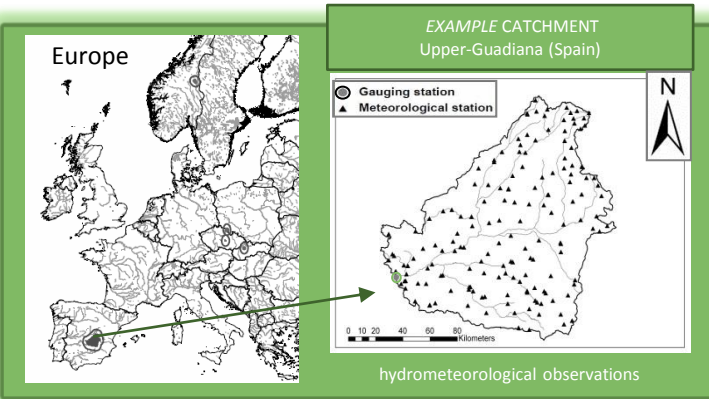
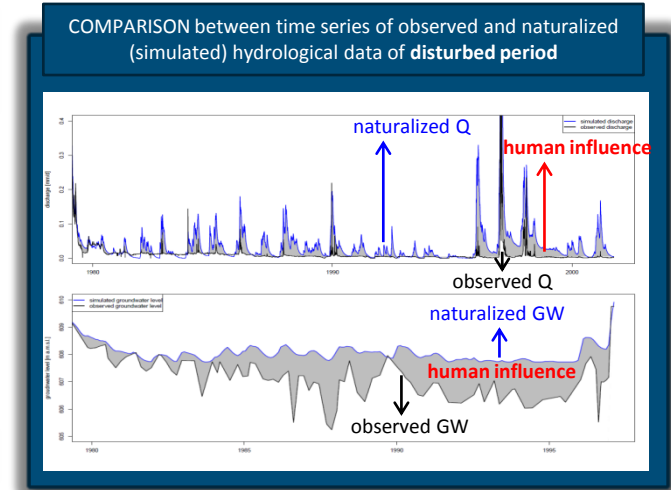
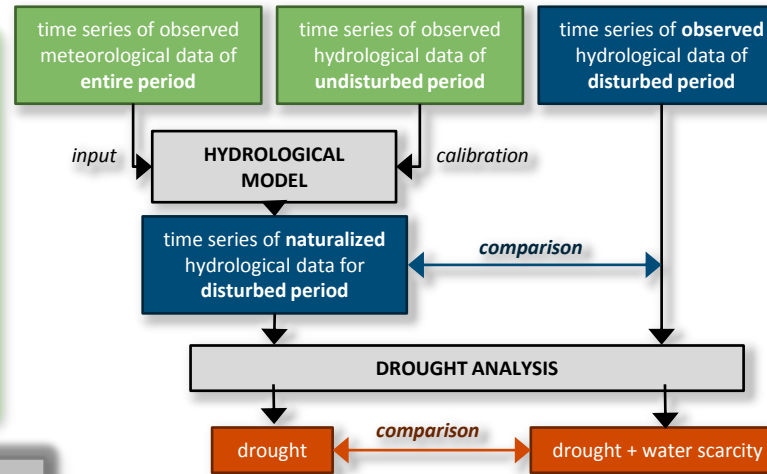


Drought is a natural hazard, which is caused by climatic processes and their intrinsic variability, and cannot be prevented by local water management.

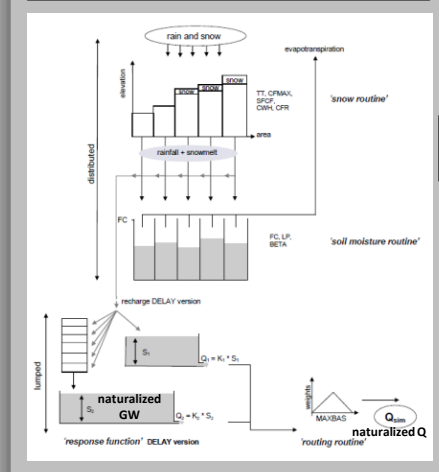
Water scarcity refers to the long-term unsustainable use of water resources and is a process that water managers can influence.

Water managers need a tool to distinguish between water scarcity and drought. An observation-modelling framework is proposed and illustrated by the use of the HBV model and threshold level method in a case study in Spain.

observation-modelling framework

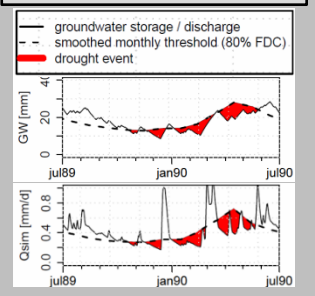


EXAMPLE HYDROLOGICAL MODEL Conceptual rainfall-runoff model HBV



model does not simulate human influence, so it can be used to naturalize disturbed time series

EXAMPLE DROUGHT ANALYSIS Variable threshold level method



COMPARISON between time series of drought and drought + water scarcity

