

## **DROUGHT MONITORING AND PREDICTION OVER CONTINENTAL CHINA - A PERSPECTIVE APPROACH BASED ON SATELLITE EARTH OBSERVATION, ATMOSPHERIC AND HYDROLOGICAL MODELLING**

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The Objective of this work in progress is to monitor and predict drought over continental China for drought relief decision making. The chosen method consists of the following elements: to derive land surface parameters and to map heat fluxes at the land surface using the state of the art methodologies by means of satellite earth observation, to provide mid to long term weather predictions by means of numerical weather predictions, to provide hydrological predictions by means of large scale hydrological models, to monitor and predict mid to long term drought by means of the above three combinations. Here a crucial step will be the assimilation of satellite earth observation data into both atmospheric and hydrological modelling systems. A participatory approach will be applied to assess decision alternatives taking into account social-economic considerations. The anticipated results are: scientifically based drought mitigation and drought relief decision alternatives, real time drought monitoring and prediction maps, improved understanding of land surface processes over heterogeneous terrain, algorithms for estimation of land surface heat fluxes over continental China, improved representation of land surface processes in numerical weather prediction models and improved data assimilation techniques. An Internet based prototype system will be developed for drought relief decision making. Preliminary results will be presented.

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