



SC
EPSCoR/IDeA

RESEARCH FOCUS ON DR. ASHOK MISHRA

Drought affects water security by weakening the ability of a water resource system to provide sustainable access to acceptable water to sustain ecosystems and livelihoods. In that 80 percent of the global population has a high level of water insecurity, and quantifying water security as it varies among geographic locations, differences in climatic pattern, water supply vs. demand and priorities is challenging.

With the help of an NSF CAREER award, **Dr. Ashok Mishra** from Clemson University will create a new mathematical model for improving water sustainability under extreme droughts and introduce it to the scientific, social and policy communities. Using this model they can able to tell which sector is going to run in to trouble because of drought. This mathematical framework is built upon the concept of integration of multiple evolution (co-evolution) approaches to show how the drought is likely to propagate through the hydrogic system to affect the human system. Overall,

PROJECT TITLE

CAREER: Quantifying drought and vulnerability indicators for water security in a changing environment

AIM

This project will create a new model for improving water sustainability under extreme droughts and introduce it to the scientific, social and policy communities.

AWARD ABSTRACT

https://www.nsf.gov/awardsearch/showAward?AWD_ID=1653841

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understanding the connection between drought and water security is vitally important to creating reasonable policies to maintain ecological and economic health.

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