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Climate Information Systems: Science Underpinning Services

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The U.S. experience with the development of the National Drought Information System (NIDIS) has shown what elements are crucial to a successful climate information system. These span end-to-end, from understanding, monitoring, modeling and predicting drought processes to impacts assessment, and the sustained user engagement as part of topical forums and regional early warning prototypes, to scope the integrated system services and provide information to its stakeholders. Focused interactions among groups engaged on these fronts ensure the development of and linkages between relevant "science based services" and "user driven science" needed for continued advances on both fronts.
The NIDIS experience is the basis for the development of a Global Drought Information System (GDIS) and is a useful model for developing information systems for other key applications to support preparedness and adaptation. For example, NOAA and the Center for Disease Control and Prevention are currently involved in the development of a National Integrated Heat Health Information System. This presentation will focus on the science underpinning NIDIS and other potential new information systems, specifically modeling and prediction activities.