

## PROJECT SUMMARY

Seasonal and longer-term climate variability lead to significant economic, environmental, and social risks that might be mitigated through appropriate management of agricultural, forest, and water resources in the southeastern USA. Climate extremes, such as drought, flood, freezing temperatures, and hurricanes can be predicted with increasing levels of skill. The basic hypothesis of this project is that if decision makers were aware of probable climate conditions several months in advance, they could adjust their resource management practices to reduce risks of crop losses, forest fires, water shortages, and other risks that arise from climate variability.

Our primary goal is to provide timely and relevant information about expected climate conditions and management options that could reduce risks and increase profits for agricultural and forest producers, water resource managers, and other decision makers. Toward this goal, we have developed *AgroClimate*, a prototype web-based information and decision support system first made available to the public in 2004 [<http://AgroClimate.org>]. *AgroClimate* is designed for use by farmers, ranchers, foresters, water resource managers, and those who advise them (e.g. Cooperative Extension Service, consultants, and others). *AgroClimate* provide relevant climate forecast information and response options at two spatial scales: county and state/region. The design is modular, which allows us to add new decision aids as they are produced. We have also developed an excellent working relationship with the Cooperative Extension Services in the Southeast and our interdisciplinary, multi-institutional team of researchers continues to work with Extension Specialists, Coordinators and Agents as well as farmers, ranchers, foresters, and water resource managers as we continue to develop and expand this web-based system. This transition of *AgroClimate* to Extension is complete in Florida and, based on this experience, we plan to transfer *AgroClimate* to the Cooperative Extension Services of Alabama, Georgia and the Carolinas. To assure relevance and value of *AgroClimate*, we follow a participatory approach, seeking regular inputs and feedback from Extension, farmers, forest managers, and other decision makers to help evaluate and improve *ArogClimate* and other SECC products.

The ultimate outcome of this project will be a highly visible, modular, and evolutionary system that links research and extension efforts to provide information on climate variability and climate forecasts to decision makers in agriculture, forestry, and water resource management, as well as management response options for reducing risks and increasing profitability.