



Post-Doctoral Research Scientist on Remote Sensing of U.S. Agriculture and Irrigated Land Use

Summary: The University of Wisconsin-Madison's Center for Sustainability and the Global Environment (SAGE) seeks an exceptional postdoctoral scientist with expertise in satellite remote sensing and spatial analysis to study agriculture and irrigation systems in the United States. The postdoctoral researcher will contribute as a core team member to NASA- and USGS-funded interdisciplinary projects that are investigating national water use and efficiency improvements and as well as have ample opportunity to collaborate on complementary projects focused on agricultural conservation, bioenergy solutions, and climate change mitigation.

Job Responsibilities: The applicant will lead and support the mapping and assessment of current and historic irrigation system type and associated impacts on crop water use and efficiency. The applicant will work closely with colleagues at other institutions including the U.S. Geological Survey, the U.S. Department of Agriculture, and several universities to improve upon existing remotely sensed data, develop new methods for detection of irrigation practices, and apply the produced products to conservation and policy-relevant research questions. The study area focus is the conterminous United States with additional emphasis on the Mississippi Alluvial Valley, and work can include field data collection to support the analysis, if interested.

Ideal qualifications include the following:

- Strong skills in satellite remote sensing, GIS, and statistical analysis
- Experience using cloud-based computing resources (e.g. Google Earth Engine) for image classification and large-scale data processing.
- Familiarity with concepts, modeling, or datasets related to water use and efficiency, U.S. agricultural management practices, and/or environmental impacts of agroecosystems.
- Possess a Ph.D. or M.S. plus extensive research experience

UW-Madison is a world leader in remote sensing for the conservation, agricultural, and ecological sciences. The researcher will be joining a highly collaborative and energetic team working with [Dr. Tyler Lark](#), project technical lead Dr. [Yanhua Xie](#), and other members of the [Global Land Use & Environment](#) lab who have significant experience in remote sensing, agricultural sustainability, and land systems. The city of [Madison, WI](#), is widely recognized for its warm community, high quality of life, culture and arts scene, and easy access to natural areas. Costs of living are moderate, public transportation and bicycle paths are easy transportation options, and there is a vibrant international community.

Applications will be reviewed upon submission. The position is available immediately for an initial appointment of up to 2 years, with strong potential for continuation pending funding and performance. Salary is commensurate with experience and a minimum of \$51,957 per year, plus health insurance benefits. The position is based in Madison, WI, with potential for hybrid work.

To apply, please submit an electronic cover letter detailing qualifications, CV, and phone and email addresses of three references to Dr. Tyler Lark, lark@wisc.edu.