



## **Post-Doctoral Research Associate on Remote Sensing of U.S. Agriculture and Irrigation:**

**Summary:** The University of Wisconsin-Madison's Center for Sustainability and the Global Environment (SAGE) seeks an exceptional post-doctoral scientist with expertise in satellite remote sensing and spatial analysis to study agriculture and irrigation systems in the United States under the supervision and mentorship of Dr. Tyler Lark. The postdoctoral researcher will primarily contribute to a pair of NASA- and USGS-funded interdisciplinary projects aiming to inform U.S. water use estimation and efficiency with ample opportunity to contribute to ongoing projects on agricultural conservation, bioenergy, 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 collaborators at other institutions including the U.S. Geological Survey, the U.S. Department of Agriculture, and several universities to improve upon existing data and remotely sensed maps, develop new methods for detection of irrigation practices, and assess the accuracy of produced products. The study area focus is the conterminous United States with additional emphasis on the Mississippi Alluvial Valley, and work may include limited field data collection to support the analyses.

**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 quantity, 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, vibrant, and energetic team working with [Dr. Lark](#), project technical lead Dr. [Yanhua Xie](#), and other members of the [Gibbs 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, and public transportation and bicycle paths are easy transportation options. There is a thriving international community.

Applications will be reviewed upon submission. The position is available immediately with a preferred start date in Summer 2022 or soon thereafter. Initial appointment will be for 12 months with strong potential for continuation depending upon funding and performance. Salary for this full-time position will be \$51,957 per year, plus health insurance benefits. Position will be 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](mailto:lark@wisc.edu).