Research Associate
Department of Community Sustainability
The Center for Global Change and Earth Observation
Michigan State University

The Department of Community Sustainability and the Center for Global Change and Earth Observation at Michigan State University is searching for a full-time Research Associate/post doc to be a part of a four-year NSF-funded grant that is developing new ways to reduce the social, economic and environmental costs of hydropower development. The position will start as soon as an appropriate candidate is found, preferably by summer 2017. Candidates will be based in East Lansing, Michigan, with significant fieldwork in the Brazilian Amazon.

Project Abstract: An estimated 3,700 major dams are currently either planned or under construction worldwide, and they will continue to play significant roles in energy production in the foreseeable future, especially in developing countries. This study's goal is to develop innovative solutions for hydropower-- not just to produce energy for the national grid, but woven into the surrounding food, water, and institutional systems. The team includes hydroengineers, hydrogeologists, climatologists, biologists and social scientists working in tandem to offer transformative solutions for hydropower development while ensuring that social and environmental benefits outweigh costs. The research teams will assess land cover change to understand deforestation risk in and around dams, and identify agricultural areas that can benefit from sediment application. Coupled hydrological and climate models, linked to land cover changes in different landscape and socio-ecological settings, including international collaborations, will identify better hydropower solutions including ways to move sediments to farms and/or locations for in-stream turbines. Institutional and governance analysis will examine the multi-tiered dimensions that intrude upon the way civil society benefits from hydropower. The project will generate innovative solutions to produce renewable energy from hydropower, increase food production, and lessen negative environmental and social impacts that have reduced the acceptability of hydropower development, in the U.S., Europe and across the world.

The successful applicant will become part of an interdisciplinary team dedicated to investigating the multi-tiered and multi-sector governance structure of the food-energy-water system. The research associate will conduct an institutional analysis of the FEWs nexus to help achieve an integrated policy assessment of this nexus for the Amazon basin. Necessary skills include knowledge of the study of governance and institutions (e.g. Ostrom, North). The work will require qualitative and quantitative skills since the work will cover communities in three river basins in the Brazilian Amazon. Statistical skills are required to be able to collaborate in interdisciplinary research across the social and natural sciences. Desirable experience includes knowledge of the literature on the food-energy-water nexus and the impact of hydropower dams, along with livelihood analysis. Responsibilities will be divided between fieldwork, analysis, and writing. Candidate is expected to work independently but contribute to team-based science.

Qualifications: We are seeking candidates who:

- Are committed to a research career in interdisciplinary science, active publication of research results, and communicating them to communities.
- Have an outstanding academic record is expected, preferably with evidence of research publications.
- Completed Ph.D. degree in a social science or interdisciplinary field that includes a social science component.

- Expertise in institutional and governance analysis along the lines of the work of Elinor Ostrom and Douglas North.
- Fieldwork experience, such as survey and interview data collection.
- Acquainted with dataset management and statistical methods, mixed methods.
- Fluency in Portuguese.
- Demonstrated oral and written communication skills; ability to think creatively about collaboration, and scientific inquiry; ability to work with rural communities in the Amazon region.
- Comfortable interaction with members of other disciplines and with integration of concepts from related fields; strong interpersonal and decision-making skills.
- Flexibility to travel and work as needed.

Review of applications will begin immediately and will continue until the position is filled. Applications should be submitted electronically through Michigan State University's website, http://www.careers.msu.edu/cw/en-us/listing/ under Job Posting No 432771. Applications should include (a) a cover letter that addresses the applicant's interest in the position and how the applicant meets the qualifications specified above, (b) a current CV, and (c) a summary of your experience with diversity in your research endeavors, and any experience mentoring diverse student, and an explanation of how you will contribute to our goals of inclusive excellence, and (d) 3 letters of recommendation. Queries may be directed to Professor Maria Claudia Lopez, Chair of the Search Committee.

The College of Agriculture and Natural Resources (CANR) at Michigan State University is committed to achieving excellence by creating and sustaining an accessible and inclusive culture that values cultural and academic diversity. We are an equal opportunity/affirmative action employer. The CANR is particularly interested in candidates of all backgrounds who are committed to the principle that academic excellence is achieved through open access and proactive inclusion.