PhD or MS Research Assistantship – Water Policy

Position Description: Drs. Brian Chaffin (Society & Conservation) and Marco Maneta (Geosciences) at the University of Montana seek applicants for a unique opportunity to pursue a PhD or MS degree at the intersection of hydroeconomic modeling and public policy research. The successful candidate will join an interdisciplinary team of social and biophysical scientists collaborating on a NASA EPSCoR-funded research project titled "Satellite-guided hydro-economic analysis for integrated management and prediction of the impact of droughts on agricultural regions." The objective of this project is to leverage available satellite data to design and implement a decision support tool that allows water managers and policy makers to: (1) better understand the variability of agricultural water use under evolving climate scenarios; (2) anticipate changing agricultural water demands; and (3) analyze and resolve potential imbalances between existing regional supplies and water use demands. This type of analysis is critical for understanding how producers adapt to changing conditions, and for supporting state and local agencies in developing flexible, yet efficient policies to guide conservation, management, and development of water and related natural resources. The primary role of the PhD or MS research assistant will be to engage in policy research that directly aids in translating technical results into a form useful to support water policy development in anticipation of changing water supply and demand. In addition, the successful applicant will serve in a unique role as a liaison between the modeling team and the policy development team, helping to design and implement a procedure for modeling institutional constraints on water. The research assistantship provides a stipend for two years (12-month/yr.) including tuition and health insurance. The successful candidate will be encouraged to apply for additional funding upon arrival including external fellowships, UM teaching assistantships, and the UM BRIDGES Traineeship Program.

Desired Qualifications: The ideal candidate will have a strong academic background (BS or MS) in quantitative social, biophysical, and/or spatial sciences, and interest or experience working at the science-to-policy interface. Applicants must be able to clearly communicate complex ideas in writing and be willing to learn in a fast-paced, self-directed environment. Applicants must have a working knowledge of a statistical software package such as R and be proficient with ArcGIS (or open-source GIS software) and Python. Modeling experience is preferable, but not required. Preference will be given to applicants knowledgeable or experienced with administration of water rights under a system of prior appropriation. The successful candidate will enroll at the University of Montana in one of the following programs: PhD in Forestry & Conservation Sciences; or MS in Resource Conservation. We anticipate that the majority of student training will be in social and policy sciences, but significant flexibility exists to meet the candidate's individual educational and professional goals.

To Apply: Interested applicants should send a single PDF with the following to Dr. Brian Chaffin (brian.chaffin@umontana.edu) for immediate consideration: (1) a cover letter that includes a well-articulated statement of research interests, goals, and previous research and/or relevant experiences; (2) a resume or CV; (3) unofficial transcripts and GRE scores; and (4) contact information for three references. The selected candidate will apply to the University of Montana for admission. Graduate degree program requirements can be found at http://www.cfc.umt.edu/grad/ and http://www.umt.edu/grad/Apply/.

Department of
SOCIETY & CONSERVATION
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