

Opportunity Title: Investigating the relationship between snow and food security

Opportunity Reference Code: 0283-NPP-JUL24-JPL-EarthSci

Organization National Aeronautics and Space Administration (NASA)

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How to Apply All applications must be submitted in [Zintellect](#)

Application Deadline 7/1/2024 6:00:59 PM Eastern Time Zone

Description Description:

In snowmelt dominant regions, agriculture production is directly tied to runoff from snowmelt. However, climate change is affecting these socioecological food production systems. There are many exacerbating and mitigating combined ecohydrologic processes that contribute to more climate adapted or stressed food-water systems. Characterizing these interactions and changes is critical for improving the management of these systems and preparing for societal impacts. Stakeholder engagement is essential for creating locally-adapted food and water systems.

This opportunity will contribute to improving climate adapted socio-hydrologic systems at global and regional scales by collaborating with resources managers and other stakeholders, and using modeling and observations of the terrestrial water cycle and it's interactions with land surface processes. Generally, the work will add to our understanding of how droughts in different parts of the system and at different times contribute to changes in food and water security and subsequent societal impacts.

Possible observational and modeling work can include SWOT, GRACE, ECOSTRESS, or in situ stations. Modeling frameworks can include VIC/VIC-CropSyst, CLM, and/or LDAS. Stakeholder engagement can include ongoing collaborations with FEWSNET and other NASA collaborators or stakeholders identified by the postdoctoral fellow.

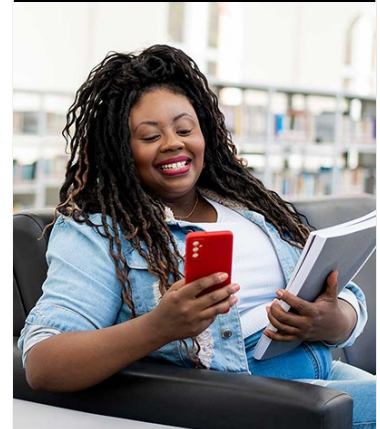
Field of Science:

- Earth Science

Advisors:

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- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Doctoral Degree.



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