

F26.34 Regional Landscape Analysis of Water Security in Northern Arizona

Overview

The Regional Landscape Analysis of Water Security in Northern Arizona is an initiative led by NAU's Water, Society and Policy Lab under the Arizona Water for All (AW4A) Network.

The Regional Landscape Analysis has the following objectives:

- 1) To gain a better understanding of how different actors in Northern Arizona frame the core tenants of and pathways for water security.
- 2) To determine shared priorities and shared areas of intervention related to water security across different sectors and cultural groups in Northern Arizona.
- 3) To identify local definitions of leadership and what skills and attributes are associated with effective water leaders.
- 4) To identify existing opportunities and resources for leadership development in local water issues.

Our team will conduct around 45 semi-structured interviews with people working on water issues across different jurisdictions in the Colorado Plateau of Northern Arizona. Our sampling design follows a quota sampling approach that takes into consideration different sectors and cultural groups. Our sample size reflects best practices for qualitative research and follows parameters for data saturation (Bernard 2006; Guest et al. 2006). The information gathered will include: peoples' expert understandings of household-level and community-level water security priorities, discussion of effective leadership skills and attributes to advance water security, and discussion of existing resources or opportunities for leadership training in water issues. Interviews will be transcribed and analyzed following a content analysis approach.

The undergraduate student funded through the I2S program will be exposed to how environmental anthropologists working in interdisciplinary teams can collect and analyzed qualitative data analysis. In this way, they will gain important social science analytical skills for their future career.

The project has been approved by NAU's IRB office.

What the student will DO and LEARN

Through one-on-one training and close mentorship, the student will be expected to DO the following tasks:

- a) Take the CITI Program certification for human subjects research.
- b) Transcribe semi-structured interviews in preparation for content analysis. c) Write short analytical memos for each transcribed interview.
- d) Participate in analysis of interview data.
- e) Create a poster to present at NAU's undergraduate symposium.
- f) Engage in Team Science by working closely with our multi-disciplinary team.

Moreover, in the lab the student will LEARN the following:

- a) What are core ethical considerations anthropologists, and social scientists more broadly, must keep in mind when doing research.
- b) What are some key considerations researchers must keep in mind when creating an effective

interview guide for cross-cultural analysis of water governance.

c) What are the steps involved in transcribing semi-structured interviews and in writing analytical memos based on those transcripts.

d) What are some key qualitative data analysis methods and when to use them. e) How to create a codebook to analyze qualitative interview data for content analysis. f) How to communicate the work they are doing to a larger multi-disciplinary team and audience.

Additional benefits

This internship will also benefit the student in the following ways.

1) Mentorship: The student will benefit from mentorship not only from myself but also from other team members who are more recent university graduates.

2) Networking: This project is conducted in partnership with researchers at ASU's Global Futures Laboratory and practitioners at the Environmental Defense Fund, which will provide the student with valuable exposure and networking opportunities.

3) Communication Skills: Open, regular, and clear communication are critical for Team Science projects like this one. I trust that we have a solid team that can model to the undergraduate student the importance of timely, respectful, and clear communication via email and face-to-face discussions. 4) Teamwork: Our team meets once a month to discuss progress, plan next steps, and review materials that can shed new light into our research. Through these meetings the student will be exposed to a group dynamic where individuals work to contribute ideas towards a shared goal and to respectfully and productively offer and receive feedback on their work or ideas.

5) Cohort-building: It is my hope to mentor 3-5 undergraduate students in my lab in any given semester through different funding or class-credit mechanisms (the lab currently has 3 active projects). This creates a cohort dynamic where students can learn together and offer peer-mentoring. The student funded through I2S will contribute to this and benefit from it.

Additional qualifications

N/A

Time commitment

6 hrs/week for 30 weeks