



THE UNIVERSITY OF ARIZONA

## Sustainability & Climate Action Plan

### Engage Community Partners in Climate-Relevant Research

#### SUSTAINABILITY COMMITMENT(S) THIS INITIATIVE SUPPORTS

- 7 – Sustainability Literacy
- **10 - Sustainability Research Funding**

#### INITIATIVE ALIGNMENT WITH THE CHARGE

- **Build Community:** The development and maintenance of enduring trust-based relationships between University of Arizona researchers, Arizonans, and other communities in the southwestern United States is a core element of this initiative. The development of community among the combination of researchers, practitioners, and others will enhance the capacity of the University of Arizona to tackle and succeed in developing and implementing solutions to climate change challenges. To implement this initiative, the University of Arizona must also be sensitive to the risk of fatiguing communities that receive frequent requests to partner in research. The University of Arizona's privileged position as a land grant institution that services all of Arizona and all Arizonans can be leveraged to broaden and enhance the University's reach throughout the state. Moreover, by identifying high-profile partners in the community, "influencers" and "trusted intermediaries," as well as local and new organizations who are interested in working with the University of Arizona, this initiative increases opportunities to facilitate local and regional investments in climate change mitigation, adaptation, justice, and resilience.
- **Demonstrate Leadership:** Leadership in engaging community partners in climate-relevant research will benefit the University of Arizona's credibility and trust. Demonstrating leadership in community partner engagement in climate-relevant research will help unlock unrealized potential in Arizona's diverse communities and will help build capacity for communities to innovate, design, and implement practices that lead to sustainable and resilient futures.

#### INITIATIVE DETAILS

##### Initiative Summary

This initiative proposes to broaden and incentivize community engagement and transdisciplinary approaches to climate-related research, including climate mitigation, adaptation, sustainability, communication of climate risks, resilience, and environmental justice. By leveraging existing resources and partnerships, the University of Arizona aims to enhance student and faculty involvement with community partners to address climate issues effectively. This initiative seeks to build on the university's leadership in climate research by expanding partnerships with NGOs and public and private entities, ensuring reciprocal and long-term community benefits. Actionable items include:

- Provide mandatory training for researchers on effective community engagement and best practices, incorporating these into undergraduate training and mentoring programs.
- Increase and retool funding for graduate students, faculty, and community partners to support climate-related community engagement.
- Leverage current internship programs and partnership opportunities to enhance their impact and foster new community connections.
- Develop coordinated outreach efforts, such as events and workshops, to raise awareness of climate-related research and build stronger community partnerships.
- Establish awards to celebrate exemplary work in community engagement on climate issues, recognizing both researchers and community partners with financial rewards.

## Proposed Initiative & Background

Community and transdisciplinary engagement is already happening through University of Arizona research centers, such as the Center for Climate Adaptation Science and Solutions (CCASS), the Center for Applied Hydroclimate Sciences (CAHS), the Southwest Environmental Health Sciences Center, Southwest Center on Resilience for Climate Change and Health (SCORCH), and federally-funded programs, such as Climate Assessment for the Southwest (CLIMAS), Southwest Climate Adaptation Science Center (SW CASC), Southwest Integrated Field Laboratory (SW-IFL) (see list below). Moreover, other units such as the Arizona Institute for Resilience (AIR), Research, Innovation, and Impact (RII) and others, along with some of the aforementioned federally funded programs, provide seed funding for this type of engagement and include programs such as the University Climate Change Coalition (UC3), the Earth Grant program, and the Resilient Internships and Student Experience (RISE) program.

Nonetheless, University of Arizona resources could be leveraged to imagine, develop, and engage with new community partnerships to enable students to engage with community partners for climate mitigation, adaptation, and justice. Given that there are many internship and engagement programs already in place, we must ensure that we are supporting the continuity of existing programs and maximizing the effectiveness of these programs in supporting continued and new long-term partnerships across the community, where relationships are reciprocal and community partners receive benefits. As a land grant institution, it is our mission to serve communities across the state, identifying new partnerships with communities in need as well as being sensitive to those that are “overstudied.”

This initiative is focused on broadening and incentivizing community engagement and transdisciplinary approaches to research topics that include climate mitigation, adaptation, sustainability, communication of climate risks and impacts, resilience, and environmental justice. This would support our current strengths as a climate research hub focused on addressing and communicating climate impacts and risks for Southern Arizona, with an agenda informed by community partners with a more specific goal of building research partnerships with NGOs and public and private external entities. The University of Arizona has demonstrated leadership in this realm for many years which is evident by the inclusion of university researchers and students in climate planning efforts at multiple scales of government (local to federal). This initiative seeks to build and expand upon these existing successes by engaging with a broader community base on a wider range of climate-related issues.

Implementation of this initiative can take multiple forms, including:

1. Expand and/or retool funding opportunities for graduate students and faculty on community engagement on climate issues.
  - a. Provide robust funding for community partners to recognize capacity and draw on partners for engagement with University of Arizona researchers.
  - b. Maximize the impact of/leverage existing investments in internship programs and other related partnership opportunities.
2. Expand training for researchers on effective community engagement (similar to the Institutional Review Board, IRB), and how to create reciprocal and long-term engagement with community-based organizations. This should be required to receive these specific funds.
  - a. This may require resources for training or draw from existing trainings across the university e.g. from the Community Engagement Core at our Southwest Environmental Health Sciences Center.
  - b. This can include the development of a companion program that provides training for undergraduate researchers, through graduate student-undergraduate student mentoring. This undergraduate-focused training could include information on best practices in community-engaged research that can also be incorporated into the university's micro-credential program and can also provide formal recognition for undergraduates who participate in these trainings.
3. Increase awareness of climate-related research with community partners via coordinated outreach efforts (events, workshops, etc.).
  - a. Consider developing a roster of existing or potential community partners and contacts for University of Arizona community to catalyze partnerships.
  - b. Engage the roster! Building from existing relationships between faculty, staff, and students, identify potential intermediaries and prioritize investments that are likely to lead to actionable outcomes.
  - c. Coordinate and better disseminate existing events and workshops across campus, especially across colleges, and outside the university to civic partners, for example, via a special section of the weekly AIR "The Dirt" newsletter that tags climate-related events or featured on an AIR webpage with a special "climate" tag.
  - d. Ensure that community partners are either compensated for their time or receive mutually beneficial outcomes from engaging in potential projects.
4. Centralize a list of potential funding (internal and external) to catalyze such partnerships, that could potentially be maintained by RII.
5. Develop a climate community engagement award (one student/community partner pair and one researcher/community partner division) to celebrate, recognize, and publicize exemplary work in community engagement on climate. BOTH the researcher AND the community partner should be recognized and given a financial reward.
6. Responsibly engage indigenous, Latinx, and borderland communities as partners – we are a Hispanic Serving Institution in a border community. We must engage students, and faculty of color in learning and working with communities that we are connected to. Build the capacity of faculty, staff, and students to engage with these communities respectfully.

7. Institutionalize support for the University Climate Change Coalition (UC3) program that seeks to use university expertise and student experiential learning opportunities to support local climate and sustainability initiatives in partnership with local community partners (governments, NGOs, grassroots organizations). This would support the community's climate change/sustainability efforts by leveraging the research resources of the university while providing experiential learning opportunities for students.
  - a. Facilities & Administrative (F&A) fees currently being collected from climate and community-engaged research may be a potential source of long-term funding for this effort as recognition by the university that the research done on campus could and should support similar climate change/sustainability work being done in the community. This could be a very small percentage of F&A fees, but it would go a long way in establishing a permanent full-time coordinator and funding the work.
8. Integrate and partner with climate-and-partner-relevant University of Arizona Cooperative Extension programs and initiatives, such as the university's Climate Extension Initiative, the Federally Recognized Tribal Extension Program, Project WET, and other programs. Seek synergies between Cooperative Extension and units within the University of Arizona that are not within the College of Agriculture, Life, & Environmental Sciences (CALES), to make the most of our potential to serve the needs of communities, municipalities, counties, and other entities and strengthen the return on investments by the Arizona Legislature and Board of Regents.

## Data Analyses to Support Initiative

Universities and researchers are increasingly called upon for their work to have an impact on society. The most effective path toward impact is through partnership with community partners, decision-makers, and others in civil society. Thus, it is incumbent upon University of Arizona researchers to work with external parties, i.e., members of various communities, whether proximate or distant from campus. Moreover, increasing parts of the portfolios of funding agencies, such as NSF, NOAA, USGS, DOE, NIH, CDC, and other federal agencies, are devoted to engaged research that both advances science and benefits external partners and communities. Additional information can be provided by the University of Arizona Office of Societal Impact.

## Resource Requirements & Return on Investment

### *Resource Requirements*

- Staff to administer/bring together a database of existing engagement programs and partners, funding opportunities or partnerships list, administer the award nomination and selection process, facilitate team building.
- Funding for an award, potentially from a named donor
- Expanded funding, potentially from TRIF
- Staff to develop online or live modules or trainings on community engagement
- Transportation reimbursement to communities not in the immediate Tucson area

### *Return on Investment*

- Investing the time and resources into pursuing this initiative could result in additional research dollars to the university, as additional revenue could be raised to funds for proposed projects.
- The increased funding budget could offset the hiring costs associated with the proposed staff position, and should help to increase total research budget for sustainability related projects for the future.

## **Potential Funding Sources**

### Existing funding:

- RISE internships
- Earth Grant program
- CLIMAS student funding- (~\$5,000 graduate fellows program, \$14,000 dissertation support)
- Other general community engagement grants that can be leveraged, RII community engagement grant
- \$25,000 Peter & Pat Hirschman University-Community Research Partnership Fund in the College of Social & Behavioral Sciences (~\$20,000)
- AIR working groups (\$15,000)
- AIR post-doc - Postdoctoral Research Associate in Climate Change and Human Resiliency
- Udall Center Fellowships (course buyout for faculty to do policy-relevant research)

### Relevant centers or labs:

- Western Environmental Science Technical Assistance Center for Environmental Justice (WEST EJ) Center (Lead: Paloma Beamer; this is the new EPA funded Environmental Justice Technical Assistance Center)
- Southwest Environmental Health Sciences Center (Lead: Paloma Beamer for Community Engagement)
- Center for Applied Hydroclimate Science (CAHS) (Lead: Chris Castro)
- The Ramírez-Andreotta Integrated Environmental Science and Health Risk Lab
- Southwest Institute for Research on Women (<https://sirow.arizona.edu/community-engagement>)
- RII community partnership development grant – broaden eligibility
- Tuition and program fees charged to students to support student experiential learning opportunities in this space (e.g. UC3 program funding for dedicated personnel)
- Campus Sustainability Fund (limited eligibility relative to this initiative)

## **Accountable Division(s) & Department(s)**

- AIR
- CCASS

- RII
- SBS Community Engagement Department
- CAPLA

## Partners & Collaborators

- Graduate Students
- Faculty
- Staff in research administration
- Community Partner organizations and/or residents in communities

## Implementation

### *Length of Time to Implement*

- Less than one year
- One to five years
- More than five years

### *Difficulty of Implementation*

- Low
- Medium
- High
- Extremely High

### *Relative Timing*

- Begin within two years
- Begin in three to five years
- Begin in six years or later

## Metrics for Success

- Process:
  - Annual accountability review by advisory committee, to ensure equitable and inclusive selection of communities with which to engage.
- Outputs:
  - Numbers of community partnership publications and associated citation metrics
  - Numbers of community partnership co-developed proposals
  - Numbers of students, faculty, community partners trained
- Outcomes:
  - Increased capacity for community partnerships; novel partnerships generated
- Impacts:

- New external proposals and funds generated
- Societal outcomes mentioned, documented, or cited by external partners
- Societal outcomes mentioned, documented, or cited in publications, government documents, newspaper articles, and so on
- Student interns placed in externships that benefit communities
- Number of community-engaged research projects focused on adaptation/mitigation/resilience/justice, and number of co-authored articles or news media pieces with community partners.
- Evidence of improvements in resilience in the community, such as tracking impacts from extreme events (such as heat or flooding), evaluating emergency management plans, or developing risk perception surveys in communities to track change over time. Compilation of this type of information is an ambitious endeavor and would require coordination across multiple departments and researchers to collect and evaluate information in support of this measure.
- Improved relationships between the University of Arizona and community partners. This requires having frequent touchpoints or surveys to see how the partnership is serving them (e.g. do they feel valued or used).
- Amount of revenue/funding generated for University of Arizona and/or community partners.