

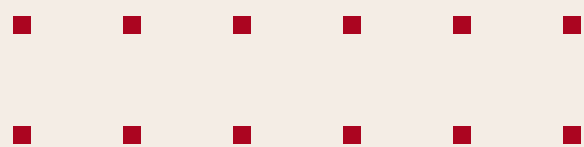


# 2022-2023 INDIGENOUS RESILIENCE CENTER Annual Report



THE UNIVERSITY OF ARIZONA  
ARIZONA INSTITUTE FOR RESILIENCE

Indigenous  
Resilience Center



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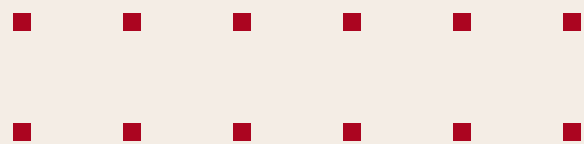
# PROFILE

The Indigenous Resilience Center (IRes) was launched in September 2021 with the vision to partner with Native Nations to co-develop Indigenized placed-based solutions to environmental perturbations that will support Indigenous resilience. IRes builds upon the land grant mission, history of the University of Arizona (UArizona) partnerships with Native Nations and their world ranked research in the environment, climate adaptation, and innovative solutions. IRes is generously supported by the Agnese Nelms Haury Program in Environment and Social Justice.



# VISION

We see a world in which Indigenous communities are thriving and adaptable to meet environmental and societal challenges.



# MISSION

Centering Indigenous ways of knowing into co-designed environmental solutions and training the next generation of community leaders.



# IRES VALUES

By following the Center's commitment to the values outlined by Dr. Shawn Wilson of respect, relationship, reciprocity, and responsibility, IRes supports Native Nations with an emphasis on the 22 sovereign nations that are within Arizona. These values are a foundation to the work of IRes:

## RELATIONSHIP • RESPECT • RECIPROCITY • RESPONSIBILITY

1. **Relationship** guides the pathway to meaningful and deep collaboration and connection. Our framework and guiding principles are focused on establishing long term relationships.
2. To kindle a meaningful relationship, **Respect** must be at the heart of its functionality. Transparency, consistent communication, and respect for place, beliefs, culture, history, language and ways of knowing must be elevated to serve as avenues for respect.
3. **Reciprocity** grounds the work and commitment to Indigenous communities. Breaking the stigma of research and institutions, IRes recognizes and prioritizes the cyclical nature of collaboration and emphasizes the need for balanced cooperation with partners.
4. It is the **Responsibility** of IRes to elevate sovereignty, self-determination, and Indigenous ways of knowing through our work both internal and external at the University of Arizona. It is the responsibility of the Center to care for and nurture the relationships and collaborative efforts that have and will be in place.



# 2022-2024 STRATEGIC GOALS

## **Goal 1: Building trust with tribal partners and UArizona research network.**

For any of our collaborations to be successful, they need to be based on trusting relationships and mutual understanding. We aim to work with tribal communities by developing trainings, Tribal Summits, listening sessions, and an elder in-residence program. In addition, the Center will create pathways for Indigenous students at UArizona and advocate for resources for and with tribal communities.

## **Goal 2: Develop an IRes project that highlights faculty expertise.**

The IRes faculty has diverse and overlapping projects that relate to working with Indigenous communities. This goal is to bring together their expertise on a joint project. The team will identify a need, form a plan, develop a product, and disseminate the product.

## **Goal 3: Establish an IRes network of trusted affiliates and allies.**

As part of our core values, it is our responsibility to ensure that researchers are trained to engage with tribal communities. To facilitate this goal, we aim to expand the team of experts across the University of Arizona campus. IRes will create an affiliation process and promote the use of existing training tools for faculty, staff, and students. The affiliation process will include training, tracking, and the development of a vetting process.

## **Goal 4: Create an efficient, communicative, and coordinated team to implement center operations.**

We strive to have our internal team embody the values of relationship, respect, reciprocity, and responsibility. To implement our strategic plan and build the intentionality of our work, IRes will create an operations plan and hold regular check-ins.



# OUR FACULTY



**Dr. Karletta Chief**  
(Diné)

**Director**

**Dr. Michael Johnson**  
(Hopi)

**SNRE Faculty**



**Dr. Joseph Hoover**

**ENVS Faculty**

**Dr. Cherie DeVore**  
(Diné)

**CHEE Faculty**





# OUR STAFF

**Torran Anderson**

**Outreach Coordinator**

**Dr. Vincent Whipple**  
(Diné)

**NFA Post-Doc Researcher**



**Daniel Sestiaga Jr.**  
(Ft. Yuma Quechan)

**Program Manager**



**Bernice Rodriguez**  
(Pascua Yaqui)

**Program Coordinator**



# OUR STUDENT STAFF



**Wilzave Quiles Guzman**

**Native FEWS Alliance  
Graduate Student**

**Javier Aguiniga**

**Student Admin Assistant**



**Ruth Pannill**

**Native FEWS Alliance  
Graduate Student**



**Miguel Corrales-Valencia**

**Student Admin Assistant**



# A STUDENT'S JOURNEY INTERNS

**Anaysa Stark**  
(Tohono O'odham)

Summer 2022 Intern



**Derrick Gonzales**  
(Tohono O'odham, Pascua Yaqui, Pima Maricopa)

Summer 2023 Intern



# ADVISORY BOARD



**Dr. Joseph Hiller**  
Lakota



**Monica Nuvamsa**  
Hopi



**Miguel Flores Jr.**  
Pascua Yaqui &  
Tohono O'odham



**Dr. Ted Jojola**  
Pueblo of Isleta



**Amy Juan**  
Tohono O'odham



**Herminia Frias**  
Pascua Yaqui



**Dr. Marti Lindsey**

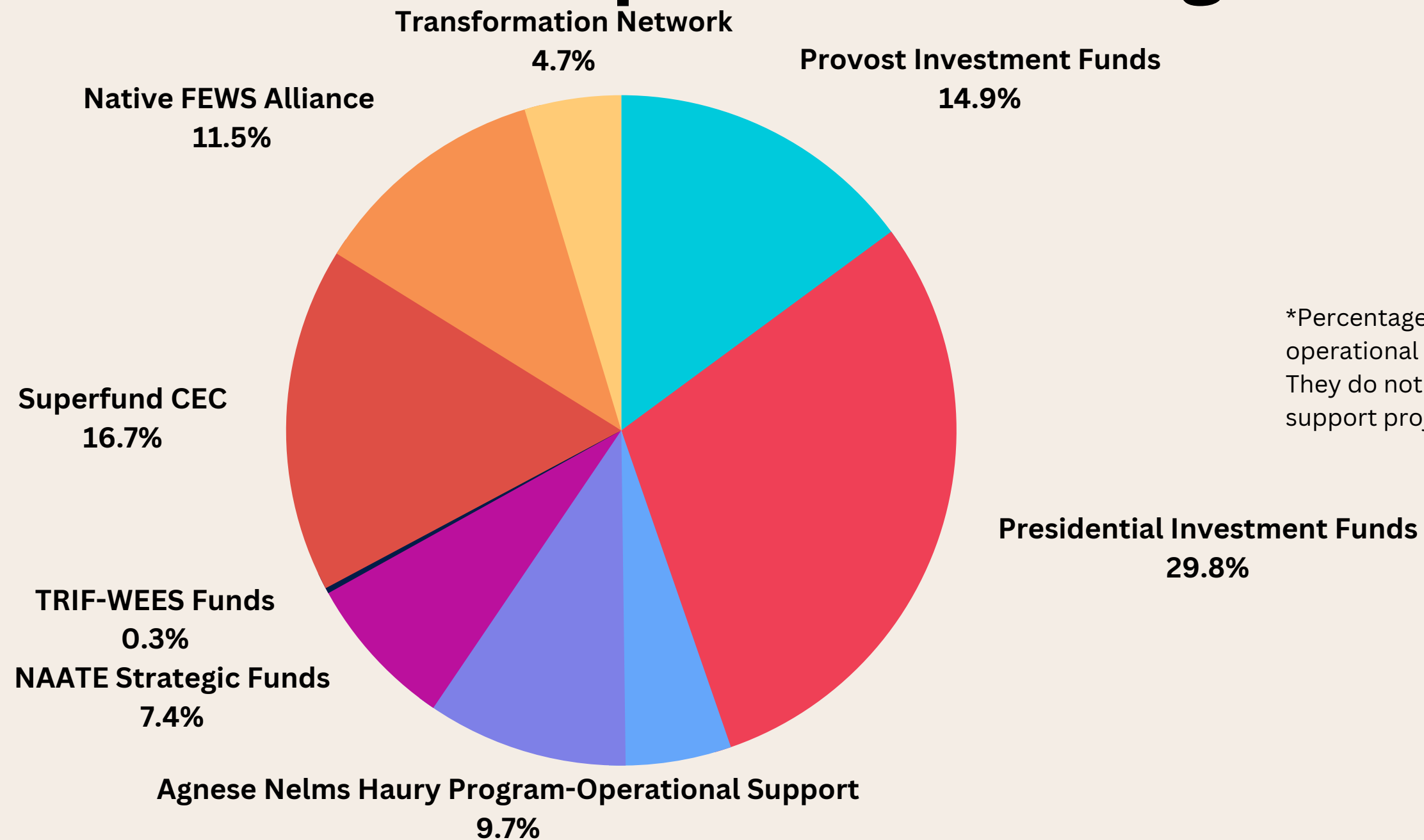


**Roman Orona**  
Apache, Pueblo, &  
Yaqui



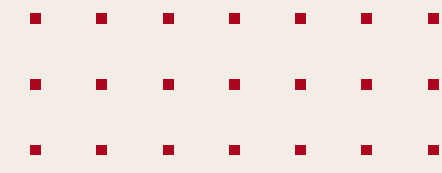
# 2022-2023 FISCAL BREAKDOWN

## IRes Center Operational Budget



\*Percentages reflect funding for operational expenses (including salary). They do not reflect faculty grants that support projects under the Center.





# 2022-2023 HIGHLIGHTS

The Indigenous Resilience Center (IRes) works in the nexus of food, water, and energy with tribal communities. As a "hub," IRes identifies and looks for resources to support co-designing solutions with Indigenous communities, as well as engaging in partnership building, research, and teaching. This section highlights some of the programming the Center has been produced throughout the year.



[resilience.arizona.edu](https://resilience.arizona.edu)

# TRIBAL SUMMIT AND INDIGENOUS RESILIENCE AWARDS



In collaboration with the Office of Native American Advancement and Tribal Engagement, IRes co-sponsored the 2nd Annual Tribal Leaders Summit: Advancing Tribal Health in Phoenix, AZ on November 4, 2022. This gathering allowed tribal leadership from Arizona tribes to engage with UArizona senior leadership as well as provide a space for networking to share concerns, challenges, resources, and successes. In addition, IRes sponsored the Indigenous Resilience Awards.

This prestigious new honorary award recognizes outstanding individuals or organizations making a positive impact in tribal communities to create healthy environments. IRes Director, Dr. Karletta Chief, presented these awards at the Resilience Award luncheon.

Our four awardees for 2022-2023 were chosen based on their commitment to tribal communities and resilience.

Dr. Otakuye Conroy-Ben  
Dr. Timian M Godfrey  
Sixth World Solutions, Janene Yazzie and Kern Collymore



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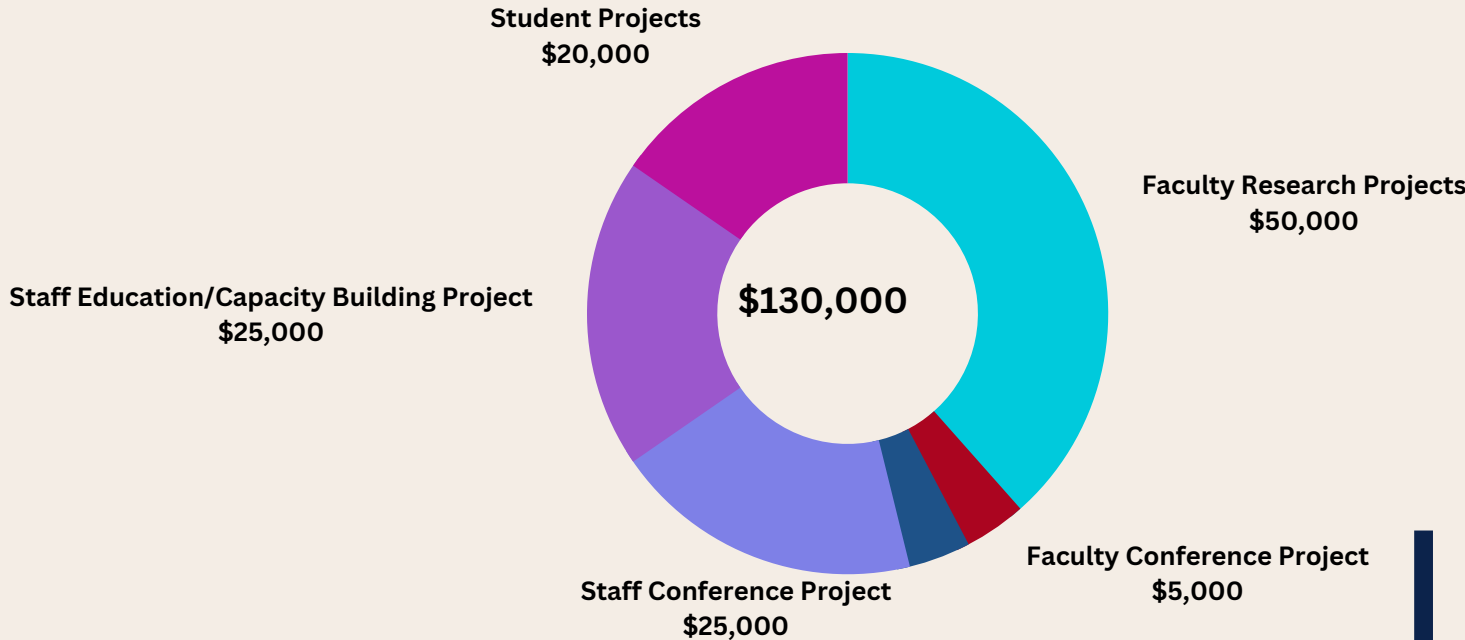


# PROVOST INVESTMENT FUNDS COMMUNITY IMPACT AWARDS



To complete its final year of the Provost Investment Fund and to expand its reach across the University of Arizona Campus, IRes hosted an open call for proposals from faculty, staff, and students to engage in projects that relate to Indigenous Resilience and demonstrate the university's commitment to tribal communities. The Community Impact Awards broaden the shape and elevate the holistic nature and perspective of resilience in Indigenous Communities. From an exploration of mining reclamation on the Navajo Nation to the hosting the 2023 Tribal Environmental Health Forum, these projects demonstrated a charge to honor tribal sovereignty, self-determination, and Indigenous ways of knowing. Below is a list of awardees and funding breakdown.

1. Arizona Journal of Environmental Law & Policy Spring Symposium on Indigenous Land Stewardship- Rebecca Cohen
2. A Brief History of Mining Reclamation in Diné Bikéyah- Don Unger
3. Establishing a New Partnership for Environmental Research - Anu Sethuraman
4. 2023 Tribal Environmental Health Forum- Benjamin Richmond
5. Moving From Dreams to Design- Using Appreciative Inquiry to Engage Southern Arizona Indigenous communities in Reimagining Computer Science Education and Workforce Development Pathways- Michelle Higgins
6. Assessing Chemical Mixtures in Groundwater in Under Sampled Areas of the Navajo Nation- Joe Hoover
7. Field Demonstration of Off-Grid Water Purification Systems at Monument Valley Tribal Park- Vicky Karanikola
8. Kwanamii- Protectors of the Quechan- Jameson D. Lopez
9. Horses Connecting Communities Across the Navajo Nation Conference- Kelsey John
10. Nurturing Plants: Connecting Rural Navajo Families to Contemporary Food System through Innovated Technology Hydroponics- Bree Lameman





# AMERICAN INDIAN SCIENCE & ENGINEERING SOCIETY (AISES) NATIONAL CONFERENCE



The Indigenous Resilience Center staff and select students were able to attend the 2022 AISES National Conference. Students from IndigeFEWSS and A Student's Journey were able to travel to Palm Springs, CA and represent their respective institutions. In conjunction with the Native FEWS Alliance, IRes affiliates were able to serve on panels and host sessions, as well as host a networking mixer and sponsor a booth during the college and career fair.



- **Native FEWS Storytellers:** Nizhoni Tallas, McKalee Steen, Clay Begay and Sebastian Preston, and Sky Wildcat
- **Recruiting and Retaining Indigenous Students and Professionals:** Laurence Brown, Fernita Dailey, Daniel Sestiaga and Sarah Lincoln
- **Training STEM Graduate Students to Work in Indigenous Communities to Co-Solve Food, Energy, and Water Challenges:** Dr. Karletta Chief, Torran Anderson, Christopher Yazzie, Parvannah Lee, Jaymus Lee, Veronique Arguello, Chantel Harrison.



# NATIVE VOICES IN FILM: INHABITANTS SCREENING FEATURING Q&A WITH DR. MICHAEL JOHNSON

To help celebrate Native American Month, IRes co-sponsored with the Native Voices in Film event held on November 20, 2022. In collaboration with University of Arizona Native American Law Students Association (NALSA) and Loft Cinema's Indigenous Film Committee, there was a full day of free films (Finding Nemo in Navajo and Inhabitants), vendors, and a community gathering, with music provided by Gertie and T.O. Boyz.

## About the Film:

**INHABITANTS: INDIGENOUS PERSPECTIVES ON RESTORING OUR WORLD** follows five Native American communities as they restore their traditional land management practices in the face of a changing climate. For millennia Native Americans successfully stewarded and shaped their landscapes, but centuries of colonization have disrupted their ability to maintain these processes. From deserts, coastlines, forests, mountains, and prairies, Native communities across the US are restoring their ancient relationships with the land. The five stories include sustaining traditions of Hopi dryland farming in Arizona; restoring buffalo to the Blackfeet reservation in Montana; maintaining sustainable forestry on the Menominee reservation in Wisconsin; reviving native food forests in Hawaii; and returning prescribed fire to the landscape by the Karuk Tribe of California. As the climate crisis escalates, these time-tested practices of North America's original inhabitants are becoming increasingly essential in a rapidly changing world.

The Q&A after the movie was an opportunity for the audience to ask questions and discuss the themes of the film with Dr. Michael Kotutwa Johnson.



# DOING ENVIRONMENTAL RESEARCH IN TRIBAL COMMUNITIES TRAINING SERIES



The Indigenous Resilience Center is committed to ensuring that researchers are prepared to work within tribal communities. In Spring 2023, hosted a 6-part interactive workshop series in which a cohort gained insight and learned wise practices on environmental research with tribal communities. The workshops were led by colleagues from across campus who work with various communities and each session had an interactive dialogue and breakout sessions where attendees could engage in various exercises.



The series was designed to:

1. Train AIR Faculty, Staff and Researchers on wise practices in Indian Country
2. Develop understanding about cultural histories, sovereignty and protocols
3. Develop understanding of wise practices in implementing community-based programming including research
4. Engage AIR Faculty, Staff and Researchers in ongoing training efforts, policies and methodologies that are in place to develop meaning and sustained relationships
5. Create a brave space to allow AIR Faculty, Staff and Researchers inquire and expand knowledge about working with tribal communities
6. Provide opportunity for AIR to expand on its JEDI models and proposed outcomes



### DOING ENVIRONMENTAL RESEARCH IN TRIBAL COMMUNITIES TRAINING SPRING 2023

The Indigenous Resilience Center, in partnership with the Arizona Institute for Resilience (AIR), will host a six-part interactive workshop series in which participants will receive training and learn wise practices on environmental research with tribal communities. The workshops will be led by colleagues from across campus who work with various communities. Each session will have an interactive dialogue, lunch, and breakout sessions where attendees can engage in exercises.

\*This training is sponsored by UArizona Provost Investment Funds and the TRIF Water, Environmental and Energy Solutions (WEEES) Initiative, administered by the Arizona Institute for Resilience\*

In person attendance is limited to 25 participants.  
Zoom participants must register ahead of time for access.

2/21/23 11:30-1:30pm	ENR2 S215	<b>Indigenous Evaluation</b> <i>Hosted by Melodie Lopez (Hopi/Navajo/Pueblo/Mexican)</i>
2/28/23 11:30-1:30pm	ENR2 S225	<b>Indigenous Data Sovereignty</b> <i>Hosted by Dr. Stephanie Carroll (Ahtna/Native Village of Kluti-Kaah)</i>
3/28/23 11:30-1:30pm	TBD	<b>Decolonized Education</b> <i>Hosted by Dr. Valerie Shirley (Diné)</i>
4/11/23 11:30-1:30pm	ENR2 S225	<b>Community Based Tribal Research</b> <i>Hosted by Dr. Francine Gachupin (Jemez Pueblo)</i>
4/18/23 11:30-1:30pm	ENR2 N604	<b>Working with Tribal Colleges</b> <i>Hosted by Benjamin Richmond &amp; Annamarie Stevens (Tohono O'odham)</i>
4/25/23 11:30-1:30pm	ENR S215	<b>Mentoring Indigenous Students</b> <i>Paloma Beamer, Frans E Tax, Karletta Chief, and Ron Trosper</i>

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INDIGENOUS SOCIETIES  
Indigenous  
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# NATIVE FEWS ALLIANCE ANNUAL GATHERING

The Indigenous Resilience Center hosted the 2nd Annual Native FEWS Alliance Annual Gathering at the University of Arizona. Throughout the course of three days, March 22-25, 2023, Alliance members and gathering participants engaged in critical conversations surrounding the Food, Energy, Water nexus.

A vision of the gathering included creating space for student engagement to inform the work of the Alliance, to engage in dialogue with panelists to outline community driven priorities for the Alliance and to generate the development of a 2023-year work plan that emphasizes the reported outcomes and evaluation metrics of the overall gathering. Overall, the 2023 Annual Gathering brought together 121 participants 74 people who did signed in person.

The 2023 Native FEWS Annual Gathering theme, “Engaging Communities for a Thriving Future,” enhances a vision to build a diverse workforce at the nexus of Food, Energy and Water Systems, and design curricula and mentoring that combine Indigenous ways of learning with physical sciences and engineering methodologies. The theme demonstrates a commitment from the 2023 Planning Committee to bring together members of tribal communities, university representatives, and alliance members to discuss ways to prepare our students in the realm of FEWS. Throughout the course of a three day event, Alliance members and participants were able to travel to the Tohono O’odham Nation and hear from panelists representing the varying sectors in FEWS and bring together communities in relationship, respect, reciprocity, and responsibility.



# 2023 TRIBAL HEALTH FORUM

The 2023 Tribal Environmental Health Forum was a two day event that took place Tuesday, May 16th and Wednesday, May 17th, 2023 in the Ak Chin Indian Community at Harrah's Ak-Chin Casino & Events Center. The theme of the forum was Elevating Traditional Knowledge to Achieve Environmental Health Justice in Indigenous Communities. This event served as an opportunity for Tribal Environmental Health Professionals and University faculty and staff to come together to address the current and future environmental health needs of our tribal communities.

The event was well attended and surpassed 150 registrants. Attendees included Tribal Leadership and Community Members, University faculty and staff, Tribal Environmental and Health Care Professionals, and students Interested in environmental health. Participants and speakers represented over 16 different tribes: Ak- Chin Indian Community, Cahuilla Band of Indians, Chemehuevi Tribe, Cherokee Nation, Colorado River Indian Tribe, Ft. Yuma Quechan, Gila River Indian Community, Hualapai Tribe, Navajo Nation, Pascua Yaqui Tribe, Powhatan Renape Nation, San Carlos Apache Tribe, Santee Sioux Nation, Tohono O'odham Nation, Tsilhqot'in Nation, and the White Mountain Apache Tribe. With over 15 speakers, presentations and panels were led by tribal leaders and environmental professionals. In addition, large federal agencies who participated in the forum included the Environmental Protection Agency (EPA) and the National Institute of Environmental Health Sciences (NIEHS).



# INDIGENOUS VISITING SCHOLARS



The Indigenous Resilience Center with the support of the Agnese Nelms Haury Program was able to host two visiting Indigenous Scholars in 2022-2023. These individuals were selected because of their area expertise. Dr. Melissa Arcand and Dr. Ted Jojola joined IRes to host workshops, coffee/office hours, listening sessions, and provided public and student talks during their time on campus.

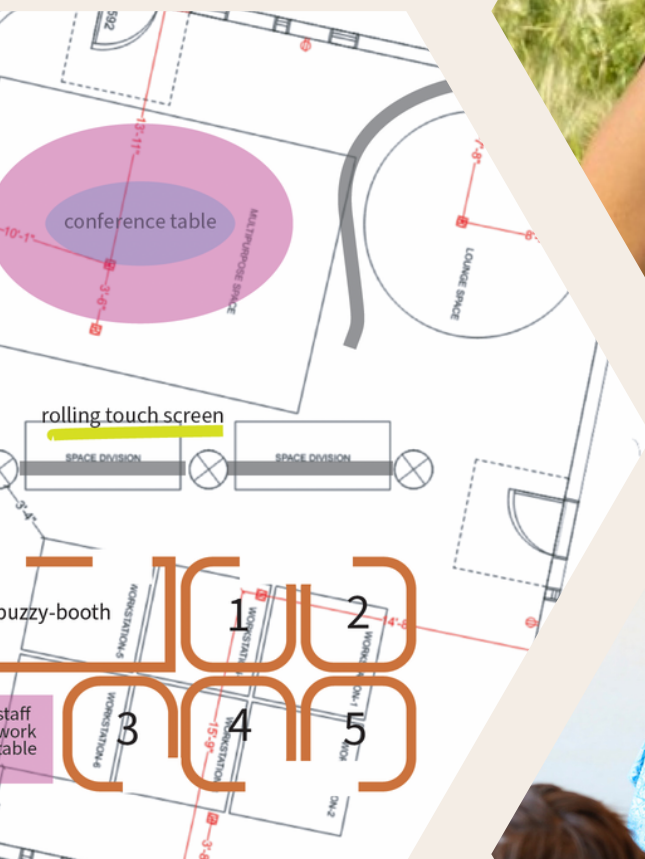
**Fall 2022:** Dr. Melissa Arcand- Associate Professor, College of Agriculture and Bioresources, University of Saskatchewan

**Spring 2023:** Dr. Ted Jojola- Director, Distinguished + Regents' Professor, Indigenous Design + Planning Institute, The University of New Mexico



IRes will continue to build on these relationships and develop efforts to continue our collaboration with our scholars. Further, IRes is committed to hosting not only scholars in academia, but knowledge holders from various tribal communities. It is our intention to assert Indigeniety and recognize the wisdom of elders and community members and continue to elevate them to the term ***scholar***.

***\*As a product of his visit, Dr. Jojola provided the IRes team with a new design for Center in ENR2, so named the IndigePod. See picture on side panel.\****



# NATIVE AMERICAN STUDENT ADVOCACY INSTITUTE (NASAI) CONFERENCE

In Summer 2023, the IRes staff was fortunate to attend the Annual Native American Student Advocacy Institute (NASAI) Conference in San Diego, CA.

This conference "has assembled a dedicated community of educators and tribal education leaders to address the educational challenges facing Native students. NASAI seeks to galvanize and build national networks to enhance the academic performance of Native American, Alaska Native, Native Hawaiian, and Pacific Islander students and to close the educational opportunity gap." -NASAI 2023

Two sessions were hosted on behalf of the Native FEWS Alliance and the University of Arizona:

**Tribal College to University-Creating Partnerships for Student Success** by Daniel Sestiaga and Benjamin Richmond

**Student Journeys-Pathway Stories from Tribal College to University** by Annamarie Stevens (TOCC), Alex Benavides, Angellisa Hoffman (SCAC), Dani Kouyoumdjian, and Sebastian Preston

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**Indigenous  
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# THANK YOU

The Indigenous Resilience Center would not have been able to accomplish the outstanding programming efforts and broaden our reach without partners and collaborators throughout the year. While there are too many to name, we recognize a few that have provided support and encouragement as the Center continues to fulfill its mission.

Agnese Nelms Haury Program, Office of Native American Advancement and Tribal Engagement, Office of Native American Initiatives, Native Peoples Technical Assistance Office, Arizona Institute for Resilience, The Office of the President, The Office of the Provost, IRes Community Advisory Board, DERT Guest Lecturers, Our Visiting Scholars, the Native FEWS Alliance, the Transformation Network, TRIF/WEES Funding, SWEHSC, Our Student Staff, Tohono O'odham Community College, Dine College, San Carlos Apache College, Tohono O'odham Nation, Pascua Yaqui Tribe, San Carlos Apache Tribe, Ak-Chin Indian Community, Gila River Indian Community, Navajo Nation, the Hopi Tribe and Tinhorn Consulting, LLC.



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# PHOTO CREDITS

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