EVENT OVERVIEW

As the world undergoes rapid climate change, people in both urban and rural communities in arid lands need effective adaptive strategies for ensuring resilience in the face of increasing environmental variability, changing weather patterns, dwindling water resources, and intensifying strains on food security. This Conference was created in recognition of the challenges around intellectual property, rightful custodianship, and cultural appropriation that arise whenever Traditional Knowledge comes into dialogue with citizen and academic science knowledge-regimes.

Held in Tucson, Arizona on November 4 and 5, 2016, the Conference featured discussions with expert panelists about their experiences with water scarcity and management; food systems; and climate change and climate justice. To address these latter issues, the conferees were highly representative, including over half who are Native American/Global Indigenous practitioners and scholars of Traditional Knowledge, as well as academic and citizen scientists looking to learn while testing and adapting sustainable practices.

On Traditional/Indigenous Knowledge

Indigenous knowledge is the local knowledge that is unique to a culture or society. Other names for it include ‘local knowledge’, ‘folk knowledge’, ‘people’s knowledge’, ‘traditional wisdom’ or ‘traditional science’. This knowledge is passed from generation to generation, usually by word of mouth and cultural rituals, and has been the basis for agriculture, food preparation, health care, education, conservation and the wide range of other activities that sustain societies in many parts of the world.

The belief underscoring this Conference is that funds of knowledge, when considered in tandem, can bring out the best strategies and models for sustainable futures. The rights and voice of Indigenous peoples around water, food and seed sovereignty, environmental use, and policy-making are essential to these ends.
OPENING CEREMONY: Linking the Global & the Regional, the Traditional & the Emerging

The Conference’s opening ceremony nicely foreshadowed the themes that emerged across panels and conversations – that the issues we are facing are global, and that multiple perspectives and voices are critical to the modeling and adoption of strategies for sustainable futures.

The Conference opened with a welcome and blessing by Austin Nunez, Chair of the San Xavier District of the Tohono O’odham Nation. The Tohono O’odham Nation, which includes approximately 28,000 members, is one of 22 federally recognized tribes in Arizona, occupying lands in the region for thousands of years.

Following this welcome were video remarks from Francesco Bandarin, UNESCO Assistant Director-General for Culture, who talked of a need for a stronger focus on culture and Traditional Knowledge systems to help cities face environmental challenges. He also spoke of local and Indigenous Knowledge systems as cultural heritage, as cornerstones of sustainable development and food security, and as resources that UNESCO has made it a mission to safeguard for future generations and the future of our planet.

Conference attendees then watched a video welcome from His Royal Highness the Prince of Wales, who has, as part of his philanthropic efforts, focused particular attention on the protection of rainforests and of the Indigenous peoples who rely on them; on sustainable farming, livable cities, and resilient rural communities; on sustainability leadership in the private sector; and on the preservation of cultural heritage and local traditions, particularly as those relate to local and organic food systems and action on climate change.

County Supervisor Chuck Huckleberry and University of Arizona Senior Vice President for Academic Affairs & Provost Andrew Comrie shared their perspectives, among them the importance of the work we do in academic and civil sectors around traditions, foods, and built environments, and the importance and relevance of Traditional Knowledge in meeting human needs.

The opening concluded with a powerful and moving reading by University of Arizona Regents’ Professor Ofelia Zepeda, a member of the Tohono O’odham Nation and a renowned poet, intellectual, and linguist.

We were honored to welcome our Conference openers, and pleased that their funds of knowledge spanned multiple domains. Each helped establish the importance of prioritizing collaborations that elevate complementarities while acknowledging tensions, all in service to just futures across the globe.
OUR SIX CONFERENCE SESSIONS:

Traditional Knowledge, Sustainable Futures

Dialogues across Traditional Knowledge (TK), Academic Science, & Citizen Science
Panelists explored ways in which techniques and approaches rooted in different funds of knowledge are used to address arid lands challenges. The rights of Indigenous peoples, and the importance of recognizing intersections across funds of knowledge, emerged as primary themes.

TK & Food Systems
Native food advocates, agricultural practitioners, and those with expertise on food sovereignty and systems examined TK as it relates to food security, food scarcity, Indigenous rights to heritage seeds and foods, and other agricultural issues.

Sharing TK through Industry, Education, & Outreach
This panel addressed some of the ways in which Traditional Knowledge can be shared and preserved, and how a variety of projects, organizations, and networks have allowed knowledge to flow across civil, educational, and commercial sectors.

Working Groups for the Future
Participants self-selected into four working groups to discuss conference themes and next steps: Dialogues Across Funds of Knowledge; partnerships among UNESCO Cities of Gastronomy; Partnerships & Youth Education; and Climate, Food, & Water Justice.

TK in a Time of Climate Change
This panel investigated how skills & practices developed and preserved through TK systems may be used to tackle challenges of climate change, and how traditional practices and techniques align with current efforts to adopt sustainable practices.

TK & Water Scarcity in Arid Lands
Panelists considered ways to bridge TK with emerging water science, including how patterns of water use honed over centuries can be used to inform and enrich emerging practices.

OUR 300+ ATTENDEES

Participants joining us over the two days of the event included people from:
- Countries including Oman, Saudi Arabia, Peru, Zimbabwe, Italy, Canada, Mexico, and New Zealand
- 18 international organizations
- 22 Native Nations/Indigenous-related organizations
- 78 community organizations (including non-profit, corporate, and civic)
- Nine other institutions of Higher Education
- Four UNESCO Cities of Gastronomy (Gaziantep, Turkey; Parma, Italy; Ensenada, Mexico; and Tucson, Arizona, United States)
- Students, faculty, and staff from 44 different University of Arizona units, centers, and programs

The United Nations Educational, Scientific and Cultural Organization (UNESCO) is an agency of the United Nations whose focus is on peace and security through education, preservation of heritage, building capacity, exchanging knowledge, and working toward sustainable futures for all.

There are multiple ways in which our Conference, our University, and our region intersect with the critically important work being done by UNESCO.

UNESCO’s Education 2030 Framework for Action, adopted by the global education community during UNESCO’s General Conference in November, features both “Zero Hunger” and “Responsible Consumption and Production” among other goals.

Likewise, Habitat III – an October 2016 UNESCO conference in Quito, Ecuador – brought together tens of thousands of people to set global standards for sustainable urban development with an eye toward universal access to safe and affordable drinking water and equal access to food security and nutrition.

The dialogue and action stemming from the Food and Water Conference clearly align with both of these goals and agendas, as well as with other UNESCO initiatives toward equitable futures.

The City of Tucson, in partnership with Edible Baja Arizona magazine, the University of Arizona College of Social and Behavioral Sciences’ Southwest Center, and many other community partners, is a UNESCO City of Gastronomy. The designation allows Tucson to more widely share experiences, ideas, and best practices for cultural, agricultural, social, and economic development.

The University of Arizona is a partner institute to UNESCO-IHE, which carries out educational, research and capacity development activities in the fields of water engineering, water management, environment, sanitation, and governance.

The U.S. Division of the UNESCO-Associated International Traditional Knowledge Institute (ITKI-US) was formed with support from University of Arizona, the City of Tucson, and Pima County. Its aim is to contribute to the preservation of Traditional Knowledge systems by cultivating regional communities who are invested in their preservation.
ABOUT TUCSON, ARIZONA AND OUR REGION

Though water scarcity in arid lands is a perennial challenge, our region has supported 4,000 years of continuous agriculture – the longest in the United States. Tucson is also a UNESCO City of Gastronomy – the only one in the United States as of this writing – and is home to the University of Arizona (UA), a prestigious research institution with deep regional roots, an international reputation for its work on environmental sustainability and climate change, and an abiding commitment to community collaborations and betterment.

Among the locations that conferees and attendees visited in and around Tucson:

- The San Xavier Mission del Bac, a National Historic Landmark and the oldest intact European-built structure in Arizona, also on the San Xavier Indian Reservation
- The San Xavier Co-Op Farm, located on the San Xavier Indian Reservation (O’odham: Wa:k) near Tucson, Arizona, which grows traditional crops including tepary beans, corn, squash, peas, chilies, devil’s claw and mesquite flour to support the cultural and environmental values of its community
- The Arizona Sonora Desert Museum, a model for innovative presentation and interpretation plants and animals native to the Sonoran Desert and adjacent ecosystems
- Mission Garden, which features heirloom Sonoran Desert-adapted fruit orchards and vegetable gardens
- Mercado San Agustín, located at the base of A Mountain near the Santa Cruz River. The Mercado features local shops, restaurants, and a weekly farmers market
- The Carriage House, listed on the National Register of Historic Places, with James Beard Award winning Chef Janos Wilder. The Carriage House offers demonstration cooking classes that focus on Tucson’s agricultural heritage, food traditions, and culinary distinctiveness

NARRATING OUR FOOD STORIES:
A Project of ITIK–US

ITKI-US was pleased to introduce to Conference attendees their TRusT™ for ITKIUS Project, developed to help those whose livelihoods revolve around crops better access information about supply and demand. The project involves story-telling, tracking, and tracing through an innovative software platform (App and Website) that brings new information to local chefs and food and ingredient producers.

Information on many of the dishes offered during the Conference can be found through TRusT™ for ITKIUS. Explore production timelines and locations, cultivation methods, and the specific histories of the food products offered at the Conference, along with biosketches of the chefs.

For updated information on the TRusT™ for ITKIUS Project and to discover detailed information on food traditions, practices, and preparations, please visit http://www.itkius.org/trust-recipes/

PRESS AND PUBLICITY

- Edible Baja Arizona

- Local First Arizona

- Arizona Public Media
  http://kjzz.org/content/391317/ua-hosting-conference-food-and-water-desert-areas

- Daily Wildcat
THEMES AND NEXT STEPS

The Conference gave us all an opportunity to broaden our views and better understand the different platforms, frameworks and conventions used in various parts of the world for discussing these issues. It also opened the door to building stronger networks which should enable smart, passionate people in our communities to find support, resources, information, and advice from others doing similar or complementary work.

What’s next?

1. **Continuing our Dialogues**

   There is a strong desire, across communities, to find ways to continue conversing, collaborating, partnering, networking, and capacity building, through **more conferences and deeper** dialogues, involving more groups, and that tap into the potential of youth seeking to improve their neighborhoods through food security and justice. The Conference opened the door to building stronger networks that should enable smart, passionate people in our communities to find support, resources, information, and advice from others doing similar or complementary work.

2. **Recognizing our Differences**

   We exposed frustrations that have resulted from prior conversations that did not sufficiently take into account the different values, goals, and priorities embedded in different knowledge domains. We heard of opportunities to strengthen the relationships between Traditional Knowledge and formal educational institutions, and the need to develop protocols for sharing information between Native/Indigenous groups and others in ways that allow academic institutions to learn from, but not (mis)appropriate, cultural heritages.

3. **Utilizing our Networks**

   We see tremendous opportunities for the exchange of knowledge across small scale entrepreneurs and various food and water commissions – like strategies for reducing food insecurity and increasing sustainable and culturally sensitive tourism – through the UNESCO Cities of Gastronomy network.

As we look to build on what we’ve started, we will be examining next steps that are more regional, that involve more groups and non-government organizations, and that tap into the potential of youth involvement with food security and justice projects and initiatives. We look forward to the future partnership and collaboration that will result.
THANKS TO OUR EVENT SPONSORS

CITY OF TUCSON

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The Office of Tribal Relations, University of Arizona
The Institute for LGBT Studies, University of Arizona
UNESCO Chair for Environmental History, University of Arizona
The City of Tucson Commission on Food Security, Heritage, and Economy
The Water Resources Research Center (WRRC), University of Arizona

For more, please visit the Conference website at https://global.arizona.edu/food-and-water