Members of the UA arid lands research community convened on December 8, 2015 for a second UA Arid Lands Town Hall. This meeting provided an opportunity to build on the success of the first Town Hall (October 6, 2015), in which arid lands researchers reconnected and identified global pressures and grand challenges.

The primary purposes for the second town hall were to introduce new and future web tools for arid lands researchers at the UA, to discuss the path forward for UA arid lands research, and to highlight the most effective ways to develop an opportunity database.

Following lunch and introductory comments by Randy Burd, Ash Scheder Black introduced a new UA arid lands landing page, global.arizona.edu/arid-lands. He also demonstrated the capacity to add an opportunity tracker for arid lands as well as a new platform for collaboration. The former will enable funding opportunities to be consolidated and mapped on a single web page, while the later will facilitate collaboration amongst researchers. Through this user-friendly tool, UA researchers will be able to identify their research expertise, geographical regions of interest and/or expertise, and researchers they have collaborated with.

After informing attendees of potential research and education opportunities via the Altar Valley Conservation Alliance (see Appendix A), Chuck Hutchinson introduced the primary objectives for the breakout groups:

1. Identify newsletters, listserves, etc. that the Office of Global Initiatives (OGI) should monitor for funding opportunities.
2. Pitch thoughts on how to articulate a strategy for the coming year (to start the conversation).
3. Discuss ways to better reach local, national, and international arid lands communities.

Summary of Breakout Group Reports

Ideas and suggestions resulting from the breakout group discussions are listed below. There was significant consensus on several items, including the need to draw in more graduate students, the need for events in which researchers can share their results with peers, and the need for a short-term strategy document with a capability statement.

1. Potential Funding Opportunities (in no particular order):
   - Packard Foundation
   - Rockefeller Foundation
   - Robert Wood Johnson Foundation
   - Hassan Foundation
   - Bill & Melinda Gates Foundation
   - Zuckerman Family Foundation
   - Watson Foundation
   - Rockefeller Brothers Fund
• Ford Foundation
• MacArthur Foundation
• Climate and Land Use Alliance
• Pivot Foundation
• Foundation for Agricultural and Rural Resources Management (FARRMS)
• U.S. Department of Agriculture (USDA)
  i. Foreign Agricultural Service
• Federal Business Opportunities
• Gordon and Betty Moore Foundation
• NIH Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs
• National Endowment for the Humanities (and other less obvious sources)
• UA ORD Accelerate for Success Grants
• Food and Agriculture Organization of the United Nations (FAO)
• NSF Graduate Research Fellowship Program (GRFP)

Additional resources for information about opportunities:
• UA Library foundation directory online
• UA Foundation GIFT Center listserv
• UA Graduate College Office of Fellowships and Community Engagement
• Ecological Society of America listserv
• Grants.gov

2. Short-term strategy:
• Steering committee should put together a short-term strategy document with statement of capabilities.
  i. This can be used in discussions with the VPR, funding bodies, federal groups, etc.
  ii. This will inform the focus of forthcoming town hall meetings.
  iii. This will define future direction as well as opportunities.
• Be proactive rather than reactive.
• Meet with VPR and UA federal relations employees to identify promising programs.
• Identify programs that have historically funded UA and Office of Arid Lands Studies (OALS).
  i. Connect mid-career researchers to these programs.
• Focus on international and domestic/regional/local challenges.
  i. Work with Northern Mexican and Native American groups.
  ii. Determine what our practical arid lands foci should be – areas which appeal not just to academics, but other stakeholders as well.
  iii. Include outreach and Cooperative Extension.
• Engage more graduate students.
• Encourage student mobility as a way to:
  i. Engage graduate students.
  ii. Demonstrate expertise.
• To aid interdisciplinarity, compile a list of UA courses that either focus on arid lands or include arid lands. The Arid Lands Resource Sciences interdisciplinary PhD is a good place to start!
• Link to and use the UA Water Resources Research Center (WRRC) water network, which connects water researchers at UA (water.arizona.edu).
• Establish a breakfast club similar to the monthly UA College of Law Environmental Breakfast Club, in which researchers give short talks to introduce themselves and their research to peers.
• Suggestions for future town halls/events:
  i. Posters and/or short presentations by UA faculty to share their work related to arid lands.
  ii. Earth Week: have a poster presentation for students at the end of April or in early May (take advantage of already completed student projects/posters).

3. Visibility:
• Engage with groups/organizations such as Next Generation of Sonoran Desert Researchers (N-Gen) and Norman Borlaug Institute for International Agriculture (Texas A&M).
• Engage in proactive interactions w/ USAID.
• Invite representatives from the various CGIAR groups to the Nebraska International Arid Lands Consortium (IALC) meeting with IALC support.
• Create a presence at various relevant conferences:
  i. Propose IALC and/or UA panels.
  ii. Include IALC/UA arid lands branding on slides (for instance include the web addresses).
  iii. Schedule workshops on the day before major conferences to have focused time to work together within consortium.
• Inform IALC members and other relevant groups of conferences in Tucson, for instance the WRRC annual conference.
• Invite representatives from CGIAR, FAO, World Bank, etc. to visit/speak at UA
  i. Arrange visits to meet farmers, ranchers, tribal representatives, etc. who are coping with arid lands issues.
• Don’t limit our focus to academia; have a presence at other gatherings of potentially interested parties, such as the National Cowboy Poetry Gathering.

Next Steps
The UA Arid Lands Steering Committee will consider the ideas and suggestions listed above in its next meeting. It will also draft a short-term strategy document with a capability statement. This document will help focus the direction of the group and will be useful in any meetings with the VPR, funding bodies, federal groups, etc. that may occur.

In addition, the steering committee will discuss how to effectively convening events and meetings in which researchers and/or students will have the opportunity to share their arid-lands related research (for instance at breakfast club meetings or at a UA arid lands research expo).
The Altar Valley Conservation Alliance (AVCA) is a 501©3 not-for-profit collaborative conservation organization of ranchers founded in 1995. Just southwest of Tucson, Arizona, the Altar Valley comprises approximately 610,000 acres of grasslands and mountains with some of the most biologically rich and ecologically threatened biotic communities in the world. Along the valley bottom it ranges from Sonoran Desert Scrub at an elevation of about 800 meters in the north, to Desert Grassland at about 1500 meters in the south. Here, private ranches work side by side with Federal, state and local agencies to manage the valley, which is the largest unfragmented watershed in Pima County.

The Altar Valley has been the subject of considerable research and has generated a great deal of information (https://globalrangelands.org/collection/61318). In the late 19th century, Altar Wash occupied a narrow, shallow, grassy floodplain. As a consequence of the interplay of drought and land use, including fire suppression, during the early part of the 20th century, Altar Wash became entrenched by up to 6 meters, and its floodplain widened in places to more than 400 meters. These physical changes removed much of the vegetation along the immediate course of the wash, lowered the water table in the valley and on adjacent uplands, triggered head-cutting of tributary washes, caused periodic downstream flooding, and helped to change vegetation in much of the valley. How to enhance ecosystem function in hydrologic, biological, and economic terms are challenges that have persisted for a century. The demands of balancing competing interests of multiple stakeholders – public and private – within and outside the watershed has become more acute as population grows. Not surprisingly, the effects of climate change threaten the viability of warm season grasses that contribute to the biological diversity of the Valley.

Over the past two decades, AVCA has become the primary vehicle for planning and coordinating watershed restoration and conservation efforts at a landscape level among its diverse partners. The historical, physical, biological, political, and economic environment contained in the Altar provides a natural laboratory to study how these factors change and how land managers will adapt to future change. More importantly, AVCA has created a network of trust among its stakeholders that is welcoming for new research and education opportunities for the University of Arizona. Think about it....
### Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>11:30 am</td>
<td>Buffet Opens</td>
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<tr>
<td>12:00 pm</td>
<td>Program Begins</td>
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<tr>
<td>12:00 pm</td>
<td>1) Randy Burd – Welcome</td>
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<td></td>
<td>(a) Purpose of arid lands initiative/overview of Office of Global Initiatives (OGI) role</td>
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<tr>
<td></td>
<td>(b) Summary of first town hall</td>
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<td>(c) Purpose: pursuit of opportunities</td>
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<tr>
<td>12:00 pm</td>
<td>2) Ash Scheder Black</td>
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<td></td>
<td>(a) maps.global.arizona.edu for arid lands research opportunities</td>
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<td></td>
<td>(b) New platform for collaboration</td>
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<td>12:00 pm</td>
<td>3) Chuck Hutchinson</td>
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<td>(a) Identify research/training interest groups</td>
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<tr>
<td>12:50 pm</td>
<td>Break</td>
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<tr>
<td>1:00 pm</td>
<td>Breakout group discussions</td>
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<td></td>
<td>(a) Identify newsletters, listserves, etc. OGI should monitor for funding opportunities</td>
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<tr>
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<td>(b) Pitch thoughts on how to articulate a strategy for the coming year (to start the conversation)</td>
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<tr>
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<td>(c) Discuss ways to better reach arid lands community (local, national, international)</td>
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<tr>
<td>1:30 pm</td>
<td>Group reports</td>
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<tr>
<td>1:45 pm</td>
<td>Next steps</td>
</tr>
<tr>
<td>2:00 pm</td>
<td>Event Concludes</td>
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</tbody>
</table>
Attendees

Diane Austin
Greg Barron-Gafford
Mary Ann Berg
Randy Burd
Frank Camp
Jennifer Columbus
Joel Cuello
Kamel Didan
Larry Fisher
Kevin Fitzsimmons
Jen Gallo
Stefanie Herrmann
Ashley Hullinger
Chuck Hutchinson
Stuart Marsh
Istvan Molnar
Katherine Morrissey
Kim Patten
Craig Rasmussen
Christine Scheer
Ash Scheder Black
Justine Schluntz
Don Slack
Lois Wardell
Jeremy Weiss