

## UC3 Campus Forum – Full Notes

5.23.2019

Thank you for your interest in the UA's kick-off event for the [University Climate Change Coalition](#) (UC3). Please refer all questions and comments to Trevor Ledbetter ([tledbetter@email.arizona.edu](mailto:tledbetter@email.arizona.edu)) and Kathy Jacobs ([jacobsk@email.arizona.edu](mailto:jacobsk@email.arizona.edu)), and sign up for our listserv at [uc3@list.arizona.edu](mailto:uc3@list.arizona.edu).

### 1. Introduction - Kathy Jacobs (Institute of the Environment, Environmental Science Department) and Trevor Ledbetter (Office of Sustainability)

This is the kickoff event for the new University Climate Coalition effort; UA joined last winter. Thanks to President Robbins for his support of this effort, IE staff for coordinating and supporting the event.

Trevor - introduced the UC3 liaisons and explained their roles (Trevor Ledbetter – Implementation; Kathy Jacobs, Research; Jon Dudas – Office of the President; Steve Moore, Communications). UC3 is a program of Second Nature, which represents more than 600 universities focused on accelerating the transition to a lower carbon economy. UA is one of 19 selected Tier 1 research institutions in North America participating in UC3, to leverage the capacity of research institutions to achieve climate resiliency.

Second Nature also runs President's Climate Commitment - UA signed on in 2015, but President Shelton had made the original commitment. The new Carbon Commitment - commits the campus to carbon neutrality by 2050, and incorporates a resiliency component as well. In UA strategic plan we have accelerated our commitment to carbon neutrality by 2040 and scope 2 emissions (emissions associated with electric power that we use) will be reduced by 100% by 2025.

### 2. Welcome - President Robbins

President Robbins is very happy to be involved in UC3 this work is vitally important. Nearly every panel Dr. Robbins attended at the Second Nature conference in February had a UA representative. He found the conference to be both educational and inspirational. At the conference, Mr. Santiago Ali spoke about the link between sustainability and social justice - Pres Robbins would like him to come to UA campus to inspire our constituents.

Dr. Robbins plans to attend the next conference in Vancouver in late July. To be at the table with ASU's President Crow, Governor Janet Napolitano, and others signals that we

are part of this effort and ready to lead. The work that Trevor and others are doing with TEP to achieve the reduction in scope 2 emissions by 2020 is phenomenal because we were headed down another pathway, where we would have been trading offsets, etc. Environment is a critical part of Strategic Plan - in fact, Dr. Robbins discussed strategic investment fund with IE Director Dr. Raina Maier and others this morning. Robbins is committed to ensuring that there are real funds available to invest in environmental pursuits on campus.

Dr. Robbins also noted that there is palpable passion among High School students for engagement opportunities to fight climate change. How can we make this effort more focused on students? IE has been mostly research-driven historically, but long-term we have an opportunity to market this to new students who are passionate about saving the planet. We are constantly in recruitment and retention mode - we need to invest in the success of our students, and want to attract the best who are passionate about this. There is a “green wave” of students who want to be part of rebuilding and social justice, protecting the planet.

**Questions from the audience:**

Andrew Youdin, assoc. professor of astronomy - Professors care about making the campus more climate neutral. How can those of us who are interested become more involved in UC3?

**Answer from President Robbins:** We will be working on better marketing, more events, a website - we will ask you to help us create networks across campus.

**Answer from KJ:** We have a broad cross-section of departments represented here today, and we are hoping to build momentum over time and have explicit community-partnered projects. This our collective program and we are completely open to your ideas. Write your brainstorming ideas on the notecard and share them with us!

**President Robbins:** This kind of forum can build IE’s future as well as the campus environment across campus - these are highly interdisciplinary problems and we need to leverage each other’s expertise to do so. Why would a student go to UA when they could go to Berkeley? How do we differentiate ourselves? How do we empower this next generation of leaders and give them the skills they need? How do we keep them from getting lost at UA? Let’s recruit them - we do not have a “College of Environment”, so how do we steward those students in a better way?

**3. UC3 in the Strategic Plan - Steve Moore**

Focus of the strategic plan implementation is on inclusion, not exclusion. Assume you are part of the strategic plan and everything taking place here rather than noting that your own particular office or expertise are not explicitly noted.

Environment is connected to all of the pillars. Pillar 1 - where can environment fit in? Make it easier to understand which majors focus most heavily on sustainability and climate change. How do we create magnets/ landmarks so prospective students and our stakeholders can find environmental offerings? People want interdisciplinary studies, but also, are searching for Climate Change-related offerings. We can't depend on students being equipped enough to find these resources on their own, so we need to guide them.

Pillar 2 - Environment, Built Environment - easy fits for these topics. We are always looking at how we can connect people.

Pillar 3- cross-border collaborations. Water, resources sharing, arid environment emphasis.

Pillar 4 - global projects. Students at our micro-campuses are interested in climate issues. How can we fulfill that need? What is our magnet to attract them here?

Pillar 5 - living our core values. What are our differentiators, adding value to students in the area of climate change and environment? We have the ability to make not just Arizona better, but the world better. Students want to be part of the solution. (eg. Compost Cats)!

Campus Master Plan - has focus groups and one of them includes sustainability

**Question (Q): How will UA be more involved with Rosemont mine, I-11 issues?**

It's good that we're looking at the global issues but it's also key to look at hyperlocal issues.

**Answer from Kathy (A):** Today's objective is to identify ways that the UA can work with the community in order to develop solutions to these items. It's part of the UC3 framework. What we want are your ideas, things you've seen elsewhere that we can use as a model here. How can UA help develop community solutions? Rosemont mine is definitely a topic that can be considered.

We will share these ideas in the fall with 60 community leaders, to identify top concepts and then will share with UA faculty staff and students. There has to be broad ownership of these ideas across the board.

#### 4. Popcorn Talks

- **Harvesting the Sun - Greg Barron-Gafford**

Proposal: Place-based, community based collaborative project to harvest energy and grow more food. We want to be a hotspot for renewable energy production. Food

production and energy production can work together. Solar panels are optimized to function at 77F, so they underperform at hotter temps. Why not co-locate the systems? Shade from panels improves plant growth, reduces evaporation and saves on irrigation, while simultaneously, transpiration from plants cools the panels and makes them more efficient. Have been working in local schools (Manzo, others) in STEM program. This approach can be dramatically expanded across the community.

- **Climate Adaptation Student Engagement - Ladd Keith**

After years at UA, sees that more and more students are looking for climate-related engagement opportunities. We have great things happening at UA but it's hard for students to know where to find these. 100% engagement infrastructure is in place, but need better recruitment. CAPLA studios often focus on local issues like Rosemont Mine. Has 2 community-oriented student projects now: students collecting mosquitoes, looking at climate/health issues and looking at managing urban heat through infrastructure. There is the potential for vastly expanding student projects with the community through funded internship programs.

- **Public-Private Partnerships - Andrea Gerlak**

UA can partner with the private sector in adapting to changing climate. Three advantages - helping private sector with risk management supports community resilience, expands UA educational opportunities gives real world experience, generates income for UA. RDI had previously funded a partnership with TEP, program was in IE and had interdisciplinary team. Produced qualitative climate risk impact assessment document. TEP now hiring interdisciplinary UA team to help them to set a carbon reduction goal. UA lacks the institutional infrastructure to do this work and this is a great opportunity to fix that: single entry point, coordination mechanism to engage more stakeholders, lack the communications and PR mechanisms to promote what they're doing and recruit new partners. Great return on investment and is at the heart of our strategic goals.

- **Redefining Water sustainability in Arizona - Kathy Jacobs**

AZ has a premier groundwater management system. Yet we don't have a fully sustainable water supply. Who defines what's sustainable and for whom? The system is set up to reinforce the kind of water use we have had in the past, but it doesn't respect the natural environment. Colorado River dries up before it reaches the gulf - how is that sustainable? Economic sustainability, social equity, and environmental sustainability don't have to be in conflict. How can UA partner with others to redefine water sustainability? All 3 universities and associated water centers should build a coalition with other interested parties and work towards more sustainable water legislation for rural and urban communities across the state.

- **Recharge the Rain - Kerry Schwartz**

School grounds are ugly, according to kids. The blacktop is so hot that it goes through the soles of their shoes and overheats their feet. This project is focused on beautifying

schoolyards to make them significantly cooler, increase shade. 1300 public school students in the community are solving this problem through installation of rain gardens, to date. Used PAG's green infrastructure prioritization tool. Summer intern will monitor sites before and after monsoon rains to measure heat. Want to go into hottest neighborhoods to have school rain gardens installed by kids in that neighborhood, there is potential to expand this across the community.

- **Environmental Learning - Colin Waite** Camp Cooper's programs focus on building positive emotional connections with nature, basic ecological learning, and inspiration to live more lightly on the planet. Focus has been on younger kids historically, but have begun working with UA students to engage them as well in nature-based activities. Students on campus who aren't "into" the environment need to be exposed to positive natural world experiences and be inspired to think more sustainably. Science education is at risk in our public schools; we need to advocate for that if we are going to have UA students that are equipped for success and engaged.
- **Tucson 2030 District - Trevor Ledbetter**  
The 2030 District is a network of institutions working to reduce building energy use, water consumption and transportation GHGs by 50% by 2030. UA signed on in 2018. It is geared toward large scale collaborations between private, university, public in one geographically defined district. District has expanded – new challenge is how to connect residential with commercial with UA? UA has committed 12M sq ft to the total 25M already committed to the district. Built environment is one of biggest contributors to GHGs. There are opportunities for student engagement, research, get people involved - there are 5 committees you can get involved in.
- **Thrive - Jim Buizer/Mrs. Green's World**  
Introduced Gina's work as a radio host and her background. Her perspective is that through our consumption behavior, the planet is becoming uninhabitable for us and others. She sponsors Green Teams - focusing on reducing single use plastics, ordering "greener" lunches, etc. Thrive training is a recent proposal: UA and Mrs Green's World will educate businesses in how to promote sustainability. The approach is to co-design training modules so that participants can obtain climate literacy, make personal shifts in behavior, understand importance of networks & partnerships, understand equity/social justice, and be equipped to implement sustainable solutions while increasing profitability.
- **Creative CoLab - Ellen McMahon**  
We generate stories and metaphors through art. She would like a new creative "CoLab" to form, wherein scientists, writers, community members and organizations can find musicians, visual artists, dancers, etc. to work collaboratively on interdisciplinary environmental and social projects. Envisions an Advisory board, student & community fellows. Would host lectures, symposia, have artists in residence. Three strong existing examples: #1 is the Groundwater Project - art design of a dry river - artist, architect and

creative writer + community artists got together, hosted event that attracted 5K people, led to publication of book that is now in 45 permanent library collections around world.

Example 2 - Photos repurposed into photo mural for tree ring lab, also produced video. Led to two NSF proposals, expanded to museums and galleries, traveled to conferences.

Example 3 - UA community partnership for solar energy to low income households through solar commons. Game for every 5th grader to learn about common resources. Create experiences and stories to inspire, educate.

## 5. Brainstorming and next steps

How can we take these ideas and make a bigger impact?

**Q: Education - having required sustainability literacy competencies?** Don Falk, SNRE proposed that every student should have basic competencies in global change, in order to graduate. Regardless of their profession, they need this literacy. It's fine to attract students who are interested in environmental careers, but all citizens need to be able to tell fact from fiction and need to be equipped with this information because it's applicable to all fields.

**A: Diana Liverman:** we have 6 outstanding courses for freshman about climate change; all students need a diversity element, so why not allow people to propose courses for sustainability competencies. Today was focused on UA and we need to remember that national policy significance matters as well. Our work is internationally important and attracts millions of dollars. We should **play up the international research stature of UA faculty.**

Kathy - we were tasked by UC3 to focus on our own communities first, though of course there are national and international linkages.

**Q: Citizen's Board of RTA - liaison between UA and RTA/PAG.** There is a lot of sustainable building going on with roadways, cleaner modes of transportation. **How can we eliminate the automobile on UA campus?**

Trevor - Jessica Hersh-Ballering is the UA Alt Trans modes manager in Parking & Trans. She is on 2030 task force to define baseline and identify solutions to get to 50% reductions.

**Comment: Jen Kinzer Trout - Project Director for new collaborative to bring together educators in community (school districts, charter schools to support teachers). How can UC3 really engage in the schools in the area?** Teachers are struggling to ensure that there is time for science education. Surveyed 1400 teachers: they really want support to for personal growth, increase content knowledge, want project-based learning opportunities for your students.

**Comment: Paul Blowers, Engineering Faculty - many colleagues do field research. What about inviting non-major undergrads to attend these trips?** Enhances their nature experiences and creates mentoring opportunities.

**Comment: Jonathan Bean - identify high profile people who could come to UA, eg Mary Robinson and others.** Figure out how we can knit these projects and ideas together to equip the next generation to deal w climate crisis. We need to have a speaker's bureau/workshops as a way to enhance people's awareness/capacity at UA. Reinforce ties between international climate scholarly community - interface with our students. Get the results into the broader scholarly literature. Do this strategically, focus on outcomes.

Kathy: So this proposal is to build a highly visible speakers bureau on sustainability issues...

**Comment: Danielle Hargett at College of Ed - Plug for Green Drinks Tucson - casual happy hour for people interested in sustainability (2030 district, parks, etc.)** Hosted every month. Can add us all to her listserv (please contact her at [dhargett@email.arizona.edu](mailto:dhargett@email.arizona.edu) to be added to the list). Tonight at Borderlands, see FB page for more info/upcoming dates.

**Comment: Vivian Carmichael - UA Foundations.** A lot of times we have foundations program officers, so if we bring in external speakers, we could perhaps procure more funding. Donors often want a bigger impact than just Southern AZ. **Happy to set up speakers and meetings associated with sustainability-related foundations.**

**Comment: Adriana Zuniga from Udall Center, CAPLA -** I see a big opportunity for UA in terms of waste and compost. We could be a microcosm of broader community. **We could ban single-use plastics and follow the example of other cities.** This would attract students.

Trevor: described Compost Cats program and transition to new site, procuring new equipment. Office is also putting together a sustainability action plan with stakeholders to take a comprehensive look at waste goals. 2030 District isn't super focused on waste but that can be incorporated down the line, as well as into Thrive program.

**Comment: Anna Spitz - Haury program is concerned about when the community gets to enter this conversation.** There's tremendous expertise in the community, not just in UA. The community is not in this room, nor is the social justice component present. At what point will they be involved? UC3 should keep this in mind for future initiatives.

Kathy: we've started this way because campus has not come together around this topic in a meaningful way before, so this was our first pass, but we do have a broader strategy of asking for community input going forward.

**Comment: Astronomy professor Youdin - HVAC is a big area for improvement. Buildings are over-air conditioned and heated. This is a huge area for energy loss.**

Trevor: FM working on comprehensive energy management plan to address those challenges, helping meet these energy reduction goals.

**Q: Nancy - (Haury) - is there a grand coordinator of all efforts going on? Popcorn talks are very exciting, but it's very hard to get all information centralized.** A lot of cooks at the table - can UA take the role of coordinating these efforts and tracking them, plugging students into these efforts, or schools/faith groups/etc.? Can UA take this kind of role?

Kathy: Raina, has this come up?

**Raina Maier:** yes, I pitched this to the president this morning. **President does want to invest, so they'll get back to us in a few days.**

**Comment: Peter Dourlein - President's Climate Commitment is big deal, and these are milestones and accolades to note and celebrate.** 2030 District - we are signatories, and this was also a big deal to get UA, City and County *all to agree*, UC3 - huge milestone. Scope 2 emissions commitment - we'd be the first large university in US to do this (surpass ASU on this). We have many great examples of accomplishments and activities in research, education, shaping behavior. Our built environment models behavior to our students and the community. When we are resource-constrained, it can be tough. For example, the Campus Arboretum - we are supposed to model sustainable landscapes and we don't do this everywhere on campus because there's a belief that people want grass, flowers. Our actions have to follow our values.

Kathy: **We must do a better job of telling our story.** Many in the room didn't know this.

**Q: Eileen, now with Tech Launch AZ. How do we get the buy-in from the individual depts? How do we involve more people and disseminate this message? Is there a central website for English professors, etc. to get resources? How do we say to the English Dept, this is what you can do to forward this message?** Eileen ran an recycling program at Kansas in FM and understands the hurdles.

A: Kathy- we need to help people see that environment is literally connected to everything. How do we make this happen when everyone is overcommitted already? A website isn't enough.

A: Trevor- we will have a website and will also have Green Office and Green Lab certification within the next couple of years. LEED EBOM (Existing Building Operations & Maintenance); we are definitely investigating this to get an integrated, behavioral approach. Give us a few years to get there.

**Q: Doug Pickerel from mathematics: we can all walk, ride bikes. How can cyclists and pedestrians have a voice in the Master Plan process?**

A: from Dourlein - steering committee meets tomorrow for the first time. There are many cross-cutting concepts and goals, including sustainability. Number of focus groups still being

determined. There are PTS reps involved and just general members of community can participate and have a voice.

**Q: Ben Champion, geography - who is on steering committee? Can we contact them?**

A: Dourlein: there are two actual driving committees, and we'll list those names on the website. Feel free to contact Peter as well.

**Q: Neha Gupta, PhD student - role of media in how we achieve these missions? AZPM would be a great partner, engage students.**

A: Trevor: Office of Sustainability is now part of Business Affairs and we do have close connections with AZPM. We will explore that further.

**Comment: Colin Waite, Cooper Center - to really do what we need to do, handholding won't happen fast enough. People are too set in their ways. Sometimes certain things need to be mandated, eg with sustainable purchasing (Unions, Food Services).** NAU has zero waste unions, contracted with Starbucks to get rid of single use plastics. There is a model for this in our state. You have to have the political chutzpah to mandate this on our campus. I want education to happen, but when things need to happen quickly, mandates may be useful.

A: Kathy: there are many paths – the strategic plan is just one of them, this is a great point. There are over 600 universities in Second Nature. There are many great models out there.

Trevor: we are looking at the RFP process and integrating sustainability into every aspect.

**Comment: Ellen McMahon - all of these are human problems. Everyone in this room is on board, but there are so many people that don't see the problem and/or are set in their ways. We need to marshal all our expertise from all the different disciplines to contribute. This is an attitude shift.**

**Q: Laurie Clark - college of engineering /architect - there's not much awareness among staff members. How to engage deans?** For staff to feel empowered, the deans need to be on board and need to be strong leaders. How do we get bottom up and top down action simultaneously and get people's attention?

A: Kathy - Make sure the President is involved, and it's a good way to get deans and others to the table.

**Q: Kerry. Forgot to mention in popcorn talk that she worked with 16 teachers - they all took 70 hrs of Professional Development in climate science. Got traction with project drawdown and food waste. Is Compost Cats looking at the offset of carbon?** A big part of the project is Professional Development for teachers.

**Diana Liverman:** Drawdown author will come to UA to speak in the next year.

A: Trevor - CC is aware of EPA hierarchy of food waste. People, animals, industrial processes, composting, landfill. CC partnered with Fresh Produce Assn, Community Food Bank Rio Rico second operation near Nogales, which is second largest inland food port in US and a lot of food is wasted; we're opening a second site there so that Food Bank can take more of those food items and get them diverted from the landfill.

**Q: Look at all these plastic plates and cutlery used at today's event. Use compostables next time?**

A: Trevor - because CC is currently transitioning, there is no one available to take biodegradable waste at present. Hoping to accept in future and have a way to offset higher costs for biodegradables.

**Comment: Deanna Kulbeth - Greek Life is a big opportunity to reach many people with sustainability messaging.** As a grad student, has been pleased to have a leadership/supervisory role. People are curious but need a support structure. **Connect everyone in this room via email.** Greek Life is a large portion of this campus and hard to reach with sustainability but they've gotten 5 of 13 sororities so far.

**Comment: Ben Champion - measurement and evaluation is a critical component - engage in evidence-based work. Ensure that we are having real quantifiable assessments.** AASHE STARS has been done by UA. There is baseline data to use - also the GHG report speaks to impact of composting on waste. Based on Paul Blowers' original research. We have the opportunity to use our capacities as scientists and scholars to study this as we implement it.

Kathy: Jim Buizer has made this all possible, so thank you for connecting us to the UC3 network and for your leadership.

Give us your index card with ideas, we will summarize those too.

Will create an ongoing listserv for UC3. Reach out to Trevor to sign up. Will send out written summary of ideas from this conversation and will share the slides. If you RSVPed we have your email. We have a recording of this if you are interested. This will be on the IE website. We will report to UC3 at summit in Vancouver in July.