



Food – Energy – Water Nexus Initiative

# Agrivoltaics At Scale



**Tuesday, April 25<sup>th</sup> to Thursday, April 27<sup>th</sup>, 2023**

University of Arizona Biosphere 2  
32540 S Biosphere Rd | Oracle, AZ 85623

# Meeting Goals and Agenda

The University of Arizona and the French National Center for Scientific Research (CNRS) created an International Research Center (IRC) in April 2021. One of the main research themes of the IRC is the Food-Energy-Water nexus in the face of climate change. Agrivoltaics – the combination of agricultural and solar farming – is an exciting topic at the Food-Energy-Water nexus with potential to advance food, energy, and water security around the globe. The grand challenge is, how can we achieve this? We need interdisciplinary global research to push the boundaries of all dimensions of the Agrivoltaics solution, rooted in co-production of knowledge and involving stakeholders from the start – ranging from biomass production and photovoltaic technology to ecological services, social acceptance and integration, economic impact, and public policy and governance. This meeting organized by CNRS and UArizona through the France-Arizona Institute for Global Grand Challenges, gathers a multi-disciplinary team to identify specific research areas where the UArizona-France collaboration can make a difference, and lay out the program that will integrate across disciplines and turn agrivoltaics from local experiments to a global solution for sustainability and resilience.

## Meeting goals

**We are an incredible and diverse group, and we are coming together for these 3 days to meet a series of immediate and longer-term goals.** You will notice that throughout our agenda, we are weaving in time to make sure we make progress towards each. We recognize that everyone doesn't share every priority, but by seeing how our collaborative work will be contextualized both locally and globally, the significance of our efforts in developing agrivoltaics at scale to create a more sustainable food, energy, and water future will be clearer. Specifically, we aim to:

- Identify specific collaborative projects around agrivoltaics at scale that can be supported by the IRC.
- Pinpoint projects where a cohort of 10 PhD students across the UArizona and CNRS can advance the cutting edge and solidify the IRC.
- Utilize specific projects to prioritize grant writing that build innovation within and across the fields of experiential education, biophysical sciences, socio-political sciences, economics engineering, and national security – such as NSF PIRE, NSF Global Centers, and NSF Partnership for Innovation.
- Solidify burgeoning international partnerships with Morocco, Mexico, and Israel towards a shared objective of agrivoltaics at scale.
- Lay the groundwork for creating our International Academy for Resilience.

## Monday, April 24th

All Day  
7:00pm-8:00pm

Arrival at Biosphere2  
Dinner provided at Biosphere2

## Tuesday, April 25th

- 7:30am – 8:30am **Breakfast**
- 8:30am – 8:45am **Welcome and opening remarks** - *Zoom available.*  
Dr. Joaquin Ruiz/John Adams
- 8:45am – 9:15am **Plenary talk: Overview of Agrivoltaics**  
Dr. Greg Barron-Gafford
- 9:15am – 10:15am **Introductions** - *Zoom available.*  
Two-minute introduction per guest: what are you working on? And why are you interested in Agrivoltaics?
- 10:15am – 10:30am **Coffee break**
- 10:30am -11:15am **Introductions** (cont'd)
- 11:30am – 12:30pm **Sharing Questions and Collaborative Goals**  
**Sticky-note activity during lunch time**  
*We've heard about the state of the science and each other. Now we need to identify shared interests and questions and goals to pursue collaboratively. We'll make sure everyone has a chance to share thoughts by using sticky notes.*
- 12:30pm – 1:30pm **Tour of B2 Agrivoltaics Plot**
- 1:30pm-2:00pm **Sharing Questions and Collaborative Goals**  
**Presentation of sticky notes synthesis by conveners**
- 2:00pm – 3:30pm **Breakout Session I: Deepening our Focus.**  
*We are a diverse group, and there are some discipline-specific questions and some integrating interdisciplinary questions: Work with your closer peers to identify: (1) Motivations, (2) Driving questions, (3) Hypotheses, (4) Methodologies, and (5) Objectives of potential projects where a PhD student could create the right synergies.*
- 3:30pm – 3:45pm **Coffee break**
- 3:45pm – 5:00pm **Breakout Groups Reporting and General Discussion**
- 5:30pm – 7:30pm **Happy hour and dinner**

## Wednesday, April 26th

- 7:30am – 8:30am ***Breakfast***
- 8:30am – 9:15am **Summary of Previous Day** *Zoom available.*  
Workshop conveners
- 9:15am – 10:00am **Plenary talk and Q&A: Economic Tradeoffs of Utility-Scale Agrivoltaic Configurations in the U.S.**  
Dr. James McCall
- 10:00am – 10:15am ***Coffee break***
- 10:15am – 11:30am **Agrivoltaics in Action: National Initiatives and Development**  
*One of our goals for this meeting is to solidify partnerships between our IRC and Morocco, Mexico, and Israel to establish an International Academy with global sites. We will hear from these partners to identify shared motivations and goals.*  
Presenters (some by Zoom): TBD (France), TBD (Israel), TBD (Mexico), TBD (Morocco), TBD (Canada), Paul Brierley (U.S.)
- 11:30am – 1:30pm ***Lunch and tour of Biosphere 2***
- 1:30pm – 2:30pm **Funding Opportunities and Mechanisms**  
Emily Kotay
- 2:30pm – 4:00pm **Breakout Session II: Deepening our Focus**  
*Continue to develop our discipline-specific questions and integrating interdisciplinary questions. Remember to identify: (1) Motivations, (2) Driving questions, (3) Hypotheses, (4) Methodologies, and (5) Objectives of potential projects where a PhD student could create the right synergies.*
- 4:00pm – 4:15pm ***Coffee break***
- 4:15pm – 5:00pm **Breakout Groups Reporting and General Discussion**
- 6:00pm – 8:30pm ***Reception and Dinner***

## Thursday, April 27<sup>th</sup>

- 7:30am – 8:30am **Breakfast**
- 8:30am- 9:15am **Summary of Previous Day** *Zoom available.*  
Workshop conveners
- 9:15am – 10:30am **General Discussion: Review of Emerging Projects and Priorities**  
Moderators: Greg Barron-Gafford, Gilles Pinay
- 10:30am – 10:45am **Coffee break**
- 10:45am – 12:00pm **General Discussion: Projects Coordination and International Actions**  
Moderators: Joaquin Ruiz, Sylvette Tourmente
- 12:00pm – 1:00pm **Lunch**
- 1:00pm – 2:00pm **Presidential Commission on Agriculture  
International Feedback Session with Commission Members**  
Commission Chair, Paul Brierley, and commission members
- 2:00pm – 3:30pm **General Discussion: Project Communication and Publications**  
Moderators: TBD
- 3:30pm - 3:45pm **Coffee break**
- 3:45pm – 4:30pm **Next Steps Recap and Closing Discussion**  
Moderators: TBD
- 5:30pm – 7:00pm **Dinner**

