

October 2021

ASU® Julie Ann Wrigley
Global Futures Laboratory™
Arizona State University

Global Futures: **Now**



"Hope is being able to see that there is light despite the darkness."
Archibishop Desmond Tutu

This November will commence with the 26th convening of the United Nations Climate Change Conference of the Parties, more commonly known as COP26, in Glasgow, Scotland. The conference's stated top priority is to secure global net zero emissions by mid-century and keep 1.5 degrees Celsius of change within reach, but with our global temperature increase already at 1.1 degrees Celsius, and per the recent IPCC 6th Assessment Report (AR6; Climate Change 2021: The Physical

Science Basis), **1.5 degrees is not only certain but could actually be reached before 2040.**

It is clear that in order to keep our planet from warming to that threshold, the world has to greatly accelerate the pace of implementing measures laid out in the Paris Agreement and the IPCC 1.5 degree report. The warning signs are ever more present and clear. This year's barrage of extreme events across the planet demonstrates the danger that one degree of warming over the past 150 years has placed on our societies. Imagine another full degree Celsius of warming in less than 30 years from today. That is why we say we find ourselves in a climate crisis. If we do not take action now, and if the world's economic and political systems cannot fulfill their COP16 commitment of at least \$100 billion in investment and support per year beginning in 2020, we could find ourselves moving from climate crisis to climate catastrophe. A crisis can be managed, a catastrophe only allows for recovery.

Although much has to be discovered concerning the makeup and dynamics of our planet and its physical, biogeochemical and societal systems, we are not limited by scientific insight. What prevents faster progress towards the goals spelled out in the Paris Agreement and in the IPCC 1.5 degree report is our lack of societal will to implement the measures that would keep our planet from overheating.

Just about a month before the opening of COP26, the 2021 Nobel Prize in Physics was awarded "for groundbreaking contributions to our understanding of complex physical systems." One half went jointly to **Syukuro Manabe**, Princeton University, and **Klaus Hasselmann**, Max Planck Institute for Meteorology in Hamburg, Germany, "for the physical modelling of Earth's climate, quantifying variability and reliably predicting global warming." The other half was awarded to **Giorgio Parisi**, Sapienza University of Rome "for the discovery of the interplay of disorder and fluctuations in physical systems from atomic to planetary scales." The decision of the Nobel Prize committee to recognize this work reaching almost half a century back is significant in several ways. First, the fact that we have known so much for so long and have not acted to stop what we knew was coming highlights that simply knowing something is not enough. Effecting change does require research, but it also requires widespread engagement, interaction with communities, and changes in governance and policy. The decision to award this prize in physics also continues a trend of recognizing science addressing critical topics related to the future of our planet and its sustainability with the highest honors — in a variety of fields. This

trend was started with the award of the 1995 Nobel Prize in Chemistry to Paul J. Crutzen, Mario J. Molina and F. Sherwood Rowland "for their work in atmospheric chemistry, particularly concerning the formation and decomposition of ozone." The 2007 Nobel Peace Prize was awarded jointly to the Intergovernmental Panel on Climate Change (IPCC) and Al Gore Jr. "for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change." This trend clearly demonstrates that our cross-disciplinary efforts at the Global Futures Laboratory are ever more essential and necessary today.

ASU will be well represented in Glasgow by a cohort of eight people who will be meeting with elected officials, government administrators, business leaders and ambassadors of communities from around the world to learn more about their immediate and long-term needs and to discuss how ASU and the Global Futures Laboratory can work with them to navigate through this current crisis. There is a reason that this event, in the midst of an ongoing pandemic, is regarded as the single most important convening of any kind this year — HOPE.

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News



Pacific RISA center established to research climate impacts on Pacific Islands

\$6.36 million NOAA grant to support Hawai'i-based program

The National Oceanic and Atmospheric Administration announced a five-year, \$6.36 million research grant that will launch the Pacific Regional Integrated Sciences and Assessments (RISA) program as the next step in an ongoing effort of the Pacific RISA initiative to support communities in the Pacific region in becoming more resilient to the effects of climate change.

[Read more](#)



Piper Trust gives ASU and Global Futures water programs a \$5 million surprise

Grant to develop fully immersive experiences that help people develop a holistic understanding of future water challenges and opportunities for Arizona and throughout the Colorado River basin.

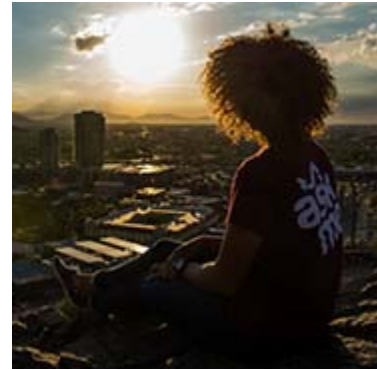
[Read more](#)

Sierra Magazine ranks ASU #1

For the first time ever, Arizona State University

garnered the No. 1 spot on Sierra magazine's "coolest schools" competitive ranking of the most environmentally friendly colleges and universities in North America.

[Read more](#)



Kathleen Merrigan speaks to ABC News on ties between food and climate change

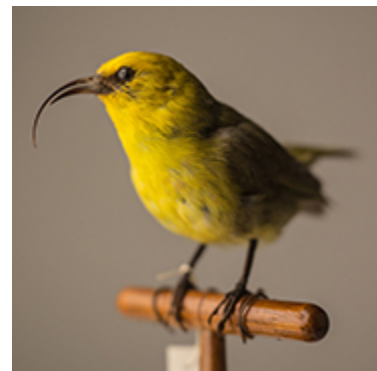
The executive director of the Swette Center for Sustainable Food Systems calls organic farming the "simplest straightforward way to support ecologically healthy agricultural production."

[Read more](#)

Leah Gerber speaks with New York Times about U.S. extinction list

As the Fish and Wildlife Service declares 23 species to be added to the extinction list, ASU's director of the Center for Biodiversity Outcomes says, "Biodiversity is the foundation of social and economic systems, yet we have not managed to solve the extinction crisis."

[Read more](#)





ASU researchers explore Phoenix pavement coatings as a way to mitigate urban heat

The City of Phoenix Street Transportation Department partnered with the Rob and Melani Walton Sustainability Solutions Service and researchers from various ASU schools centers to evaluate the effectiveness, performance and community perception of "cool pavement."

[Learn more](#)

Valerie Mueller talks climate migration with ASU News

"Scholars disagree on what constitutes a climate migrant," says Mueller, a Global Futures Senior Scholar who specializes in rural household vulnerability to climate variability and employment and services availability in Asia and Africa.



[Read more](#)



John M. Anderies co-authors paper calling for new governance to confront extreme events

The international team led by Anderies and Simon Levin from Princeton University finds that infrastructures are no longer sufficient when it comes to

preparing for, and responding to, the volatility likely to define our global future.

[Read more](#)

ASU joins multi-university team to address sustainability of phosphorus

\$25 million grant based at North Carolina State University to explore the essential crop nutrient and its larger environmental impacts. Global Futures Senior Scientist Paul Westerhoff to lead the ASU team.



[Read more](#)

Upcoming events



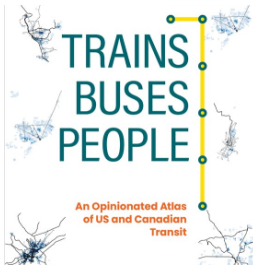
Global Conference on Sustainability in Higher Education

ASU and the Julie Ann Wrigley Global Futures Laboratory are hosting the Global Conference on Sustainability in Higher Education with the Association for the Advancement of Sustainability in Higher Education. The theme for this year's conference is "The future is..."

Free registration for the first 200 ASU registrants.

Oct. 12–14

[Register now](#)



Trains, Buses, People: An Opinionated Atlas of Transit

Author Christoff Spieler is the vice president and director of planning at Huitt-Zollars, a consulting firm with offices across the US. In this talk, Spieler discusses how agencies can better welcome riders regardless of race, gender, income or disability.

Oct. 26
Noon–1 p.m. PDT
Zoom

[Register now](#)



Public Interest Technology University Network Annual Convening

ASU and the School for the Future of Innovation in Society will host the 3rd annual convening of the Public Interest Technology University Network, or PIT-UN. Day 1 will feature working meetings of the network, including special sessions on the relationship between PIT and justice, equity, diversity and inclusion activities, and working with for-profit and not-for-profit organizations around PIT. Day 2 will feature a public meeting on climate technologies and PIT, and the public announcement of the 2021 PIT-UN grantees.

Nov. 1–2
Zoom