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ASU Julie Ann Wrigley
Global Futures Laboratory™
Arizona State University

Global Futures: Now



"In the midst of winter, I found there was, within me, an invincible summer. And that makes me happy. For it says that no matter how hard the world pushes against me, within me, there's something stronger—something better, pushing right back. " *Albert Camus*

Imagine a shattered water glass. The pieces are sharp, but with care, the glass can be put

back together. Some pieces are larger, more obvious. With the smaller pieces, it's more difficult. Some pieces are just shards, but depending on their position in the structure, they might be vital to hold any liquid at all.

It's an intricate puzzle, seemingly infinite in its complexity, as is the fallout from Russia's invasion of its sovereign neighbor Ukraine. The repercussions of the assault extend beyond the borders of Ukraine and across our increasingly interconnected world. At the Julie Ann Wrigley Global Futures Laboratory, our experts and thought leaders are deeply engaged in considering the ramifications of the war and adding their knowledge to the public conversation.

Within a month of the invasion, the Global Futures Laboratory initiated a series of conversations that examine the horrific impacts of this war, as well as how it is influencing global systems and our collective future. Russia's aggressions are both a contributor to and a distraction from persistent and increasing impacts of global change including hunger, migration, climate change, biodiversity loss and many others.

Much of Ukraine as we knew it, like the water glass, is destroyed. After two months of shelling, bombardment and brutality, thousands of Ukrainians are dead. Ukraine's infrastructure is being systematically destroyed and it is hard to imagine what it will take to rebuild it. The horrors in small towns and large cities alike—from Bucha to Mariupol, as well as Kharkiv, Kyiv, Chernihiv, Borodyanka, Novyi Bykiv and too many others—have reached unimaginable levels. Western leaders have called for an international war crimes tribunal. Poland calls it a genocide.

In retrospect, world leaders and international organizations slept through the warning signs of what President Vladimir Putin's Russia has been and is capable of doing. Indiscriminate shelling of Mariupol replicates Russia's actions in Grozny, Chechnya in late 1999. Russia's military invaded Georgia, then Crimea. Putin provided weapons and military support to Syria to use in the country's brutal civil war. Putin, the leader of Russia during all of these actions, has never truly been held to account by the global community.

The humanitarian crisis of the Russia-Ukraine war will not be limited to Ukraine. We are already seeing worldwide consequences. This conflict has wide-reaching implications. Geopolitical lines are being redrawn. The World Food Programme estimates that 40% of its wheat for food aid comes from Ukraine. Food staples are threatened, particularly in Africa, where 15 nations import more than half their wheat from Russia and Ukraine. Sanctions against Russia, a global powerhouse in the diesel and crude oil export market, are leading to supply chain issues so drastic that fueling stations in Argentina are rationing diesel, a pressing food security concern since diesel powers farm equipment. Inflation

increases are accelerating and could lead to recession in Germany, Europe's largest economy. Millions of Ukrainian refugees have fled to Europe, and millions more are internally displaced inside war-ravaged Ukraine, although we are now seeing many return home. But to what?

We are witnessing the global extension of a war between two sovereign lands. These issues are a threat now and in the future. The effects of the war and our response to them will have consequences for years and decades to come, and many may have unintended dynamics that could further extend the war's global impact. As we resolve these crises by assessing our values and reconsidering global governance and networks, as well as the structure of local to global communities, we must remember they are part of interconnected, complex systems.



Peter Schlosser
Vice President and Vice Provost of Global Futures

News



**Earth Week: Celebrating our relationship
with our planet**

Anchored by a special dedication for the new home of the Julie Ann Wrigley Global Futures Laboratory, the College of Global Futures, the School of Sustainability, the Global Institute of Sustainability and Innovation and the Rob and Melani Walton Sustainability Solutions Service, the week of April 18–22 will be filled with exciting and captivating presentations, lectures, panels, interactive installations and tours for audiences of all ages. Each day will highlight the efforts underway at ASU and beyond with internationally recognized speakers including Peter Seligmann, Maya Soetoro-Ng, Ukrainian teacher and activist Zoya Lytvyn, Starbucks Chief Sustainability Officer Michael Kobori, National Geographic photojournalist Keith Ladzinski and Julie Ann Wrigley.

[Learn more](#)

New CBO-led paper uses Colombia as case study to demonstrate biodiversity conservation via modest investment directed to landowners

The study, published today in *Nature Sustainability*, was led by Center for Biodiversity Outcomes scientists Camila Guerrero-Pineda, Gwenllian Iacona and Leah Gerber with co-authors from IUCN, Newcastle University, University of Notre Dame and University of Illinois. The study targets Colombia, home to a 2016 agreement that enabled agricultural expansion into biodiversity-rich forests, and found that doubling an already minimal investment to landowners would counteract the projected increase of 38-52% in biodiversity loss by 2033.



[Read more](#)

Paper explores how wastewater can track global health

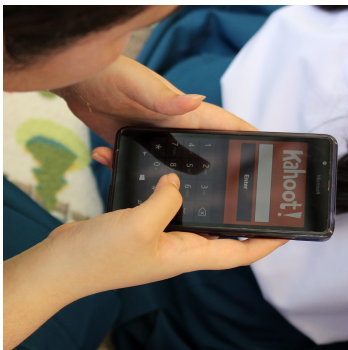


In a recent issue of the journal *Environment International*, Global Futures Scientist Rolf Halden co-authored a study with ASU PhD candidate Sangeet Adhikari on how wastewater-based epidemiology can be a leading indicator for better understanding global health and how societies can meet the U.N. Sustainable Development Goals.

[Read more](#)

Lessons learned from COVID-19

Over the past two years, humans demonstrated their ability to develop extraordinary measures, quite rapidly, in the face of extreme pressures such as the global COVID-19 pandemic. Yet, are we still proving to be ill-prepared to anticipate oncoming crises? Peter Schlosser, Manfred Laubichler and Ayrel Clark-Proffitt examine how we have responded to this global stress test.

[Read more](#)

Analysis finds Kahoot! online gaming platform can boost polar knowledge among K-12 students

Based on the deployment of a quiz on the Kahoot! site in 2018-2019, the report led by Stephanie Pfirman indicates that not only are teachers looking to engage game-style learning for their students but that the platform is a strong tool for increasing knowledge.

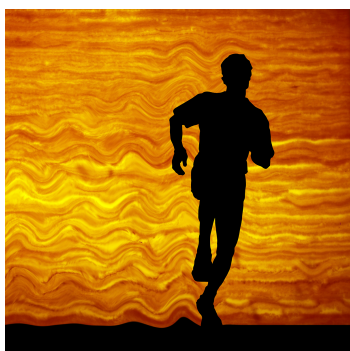
[Read more](#)

Coral reef small-scale fisheries prove to be leaders in addressing localized malnutrition and biodiversity challenges

A new white paper from the Vibrant Oceans Initiative outlines how coral reef small-scale fisheries are able to meet the nutritional needs of reef-adjacent coastal communities as well as the realities of livelihoods and conservation goals. To evaluate the role reefs can and should play in addressing malnutrition, the authors, including Katie Cramer from the ASU Center for Biodiversity Outcomes, recognized the suite of characteristics of local food systems, social factors and economic conditions to determine how important, resilient and irreplaceable reef foods are in a particular place.



[Read more](#)



Jennifer Vanos addresses the devastating impacts of extreme heat on athletes

"Pushing through extremes is considered heroic. But it also raises a question: Should athletes who are working for optimal performance and trying to make a living be forced to endure extreme conditions that may cause long-term health damage or even death?"

[Read more](#)

Swette Center hosts the Arizona Department of Agriculture Summit with special address by Sec. Tom Vilsack

Two days of information sharing and discussion on how best to move forward on creating a sustainable, healthy food system for all Arizonans were on tap at the ASU Tempe campus as the Arizona Department of Agriculture and the ASU Swette Center for Sustainable Food Systems co-hosted the fourth annual Arizona Food Summit. The event opened with U.S. Secretary of Agriculture, Tom Vilsack, who emphasized the need to link food security with nutrition security among other topics.



[Read more](#)



Kalin Kroetz talks seafood mislabeling on Resources Radio podcast

Kroetz takes an empirical look at the scale of seafood mislabeling in the United States, discussing commonly mislabeled seafood products, where more data is needed, ideas for mitigating some of the challenges and efficient policy solutions for fisheries management.

[Listen now](#)

People



Lekelia Jenkins among 120 women in STEM celebrated with statues on National Mall

The 3D-printed statues in the “IfThenSheCan” exhibit on the National Mall in Washington, D.C., as part of Women’s History Month. The title refers to the motto, “If she can see it, then she can be it.” The statues were displayed in the Smithsonian Gardens and in several Smithsonian museums through March 27. Congratulations, Kiki!

[Read more](#)

Upcoming events



Earth Week

Block your calendars for a week full of invigorating events as we honor our planet Earth. Each day is based around a special theme highlighting the efforts underway at ASU and beyond: Cool Planet (Monday, April 18); Our Relationship with Our Planet (Wednesday, April 20); and From Deep Blue to Deep Space (Thursday, April 21). This all culminates on Earth Day, Friday, April 22, with big picture look at what our future may



College of Global Futures Student Showcase

The showcase is open to undergraduate and graduate student work affiliated with the School for the Future of Innovation in Society, the School of Sustainability and the School of Complex Adaptive Systems. Students participating in Julie Ann Wrigley Global Futures Laboratory research and initiatives are also invited to participate. This semester’s showcase will be particularly