February 2023



Global Futures: Now



"This year can be called a year of losses for Ukraine, for the whole of Europe, and the whole world. But it's

wrong. We shouldn't say that. We haven't lost anything. It was taken from us." – Ukraine President Volodymyr Zelensky

Last February, as war broke out across Ukraine, the tech-connected world sat transfixed by the sheer destruction carried out by the Russian military. We watched a great power push its size and might on a smaller sovereign nation. We witnessed attacks on civilians that harkened back to World War II tactics. Throughout the past year, we have witnessed the guiding principles of Russian President Vladimir Putin's military strategy: destruction of vital infrastructure leading to human suffering—all intended to break the will of the Ukrainian people.

This war has captured the world's attention. The reasons are manifold. An important element of the Ukraine War is that it is not a civil war. Rather, it is a contest between two sovereign countries. The war is remarkable because one of those countries is a military superpower and because there is historical context, both with the nation it is attacking and in the larger global context. Ukraine is the overachieving underdog, a narrative it has shared successfully through social media platforms. It is also a battle between autocracy and democracy. And there is an element of racism, most prominently witnessed in the acceptance of refugees.

Yet, I would argue the reason the Ukraine War remains in the headlines, more prominent than, for example, the Syrian or Ethiopian civil wars, relates to the conquest's global impact. The Ukraine War has severely affected global food and energy markets, leading to increased food insecurity and concerns over energy availability. It has deepened inflation. Europe is fortunate to have had a mild winter, although given the increased frequency of extreme weather events, there is no guarantee that this situation will continue. Additionally, fears that European nations would backslide toward fossil fuels did not come to fruition. Last year saw greater investment in new renewables projects than in new oil and gas undertakings.

Whether Ukraine's underdog story will remain in the headlines is uncertain. Attention spans are short, and as political leadership changes, so do policies. Additionally, countries that have demonstrated a willingness to help are evaluating their decisions, looking at the possible tradeoffs and employing an us-before-them mindset. For example, members of the U.S. House of Representatives' "Freedom" Caucus are arguing to scale back or suspend aid to Ukraine, suggesting the U.S. government needs to focus on crises within our borders. This "America First" policy ignores the domino effects of the war. Germany's imperial ambitions did not end with Poland.

Putin's strategy remains baffling – he is destroying the land he is attempting to acquire and ruining his global reputation as he employs the brutal strategy of targeting civilians. If Russia occupies Ukraine, what's next? How high of a price are we willing to pay to prevent the expansion of authoritarian regimes?

Ukraine clearly demonstrates that regional instability is a threat to global stability because of the interconnected, complex interaction between humans and our planet. Seeking global stability does not mean protecting the status quo. If societal structures safeguard—or worse, strengthen—the corrosive values of influence, power and wealth, they will precondition transitions to instability. We must anticipate and avoid such structures and change them where they already exist. We must also interrogate why the Ukraine War has had a greater systemic impact than other conflicts and open our eyes to the effects of colonialism, racism and land grabs on commerce, finance and aid. Equity and justice are fundamental components of thriving global futures for all.

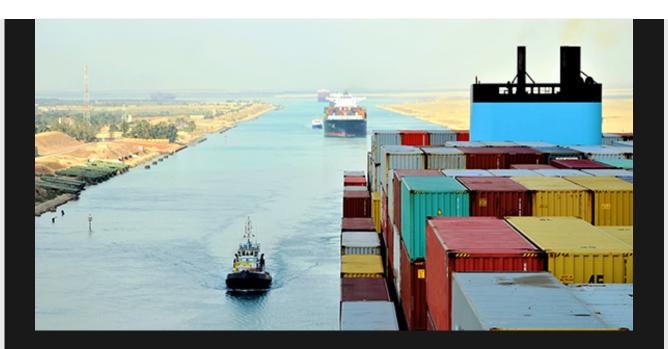
A common refrain in academia is that more research is needed. It is simultaneously repetitive and true. Academia needs to inform decisions that have to be made on many fronts with extreme urgency: How is military conflict changing in light of the Ukraine War? How can the world design resilient global systems that can withstand regional and planet-wide shocks? What tools can be used to promote ethical knowledge and value systems? What policies can lift up equity to enhance stability? These are questions that need answers now, and the Julie Ann Wrigley Global Futures Laboratory is designed to find ways to contribute to these complex issues in a timely fashion. This requires not only prioritizing new topics in our studies but also changing the way we engage with those who have to make the hard decisions that will determine the stability of the future we will live in.

Peter Schlosser

Vice President and Vice Provost of Global Futures

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News



Response diversity as a sustainability strategy

Last month, an international group of researchers, including Marty Andries, professor in the School of Sustainability, published a perspective piece in Nature Sustainability calling for "response diversity." The group suggests that society must strengthen its response diversity to build general resilience to disruptions. They find that "despite the critical role that response diversity plays in nature and in society at large, insights that extend beyond single sectors and disciplines are currently lacking."

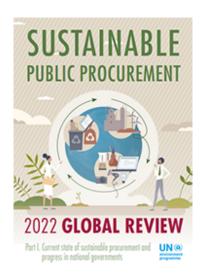
Read more

ASU researchers lead UN sustainable procurement report

Global Futures Laboratory scholars and graduate students contributed to the "Sustainable Public Procurement 2022 Global Review," released by the U.N. Environment Programme (UNEP). UNEP reached out to ASU to act as lead research institution for the

report, said <u>Nicole Darnall</u>, Foundation Professor in the School of Sustainability and director of the <u>Sustainable Purchasing Research Initiative</u>.

Learn more





Two studies explore different aspects of locust migration

Researchers, including <u>Arianne Cease</u>, director of the <u>Global Locust Initiative</u>, analyze the impact of high-carbohydrate diets on locust flight performance.

Read the article

In the second study, ASU researchers join international partners to develop models that capture range-limiting processes to better evaluate crop loss from insect pests associated with climate change.

Learn more

State Press: ChatGPT worries professors, excites them for future of Al

Senior Global Futures Scientists <u>Katina</u>

<u>Michaels, Kasim Selcuk Candan</u> and <u>Subbarao</u>

<u>Kambhampati</u> discuss the drawbacks of ChatGPT for professors and students.

Learn more





A community participatory approach to creating contextually tailored mHealth notifications: myBPmyLife Project

Beza Merid, assistant professor in the School for the Future of Innovation in Society, co-authored a study on mobile health (mHealth) interventions using the app myBPmyLife. The analysis compared researchergenerated notifications vs. participant-generated notifications. The researcher notifications were viewed as inaccessible, while messages created by users were more inclusive in language, tone and cultural practices.

Learn more

New ASU center to help make better water decisions faster

The <u>Center for Hydrologic Innovations</u> — a partnership

between the School of Sustainable Engineering and the Built Environment, part of the Fulton Schools, and the Global Futures Laboratory — brings together academic researchers and external stakeholders to collaboratively develop solutions that can address the most pressing water challenges in the desert southwest.

Learn more



Enrique Vivoni, the Fulton Professor of Hydrosystems Engineering in the Ira A. Fulton Schools of Engineering and senior global futures scientist, leads the Center for Hydrologic Innovations.



Turtles, TEDs, tuna, dolphins, and diffusion of innovations: key drivers of adoption of bycatch reduction devices

Lekelia "Kiki" Jenkins, associate professor in the School for the Future of Innovation in Society, explores voluntary and mandatory adoption periods of bycatch reduction devices and techniques through the lens of diffusion of innovation theory.

Learn more

Recovery or continued resuscitation? A clinical diagnosis of Colorado River sub-basin recovery programs

ASU alum Jaishri Srinivasan and Michael Schoon,

associate professor in the School of Sustainability, build on principles of Ostrom's social-ecological systems framework and complex adaptive systems science to assess adaptive governance in the Colorado River basin.

Learn more





Analysis of U.S. critical infrastructure trespass bills targeting anti-pipeline advocacy movements

Led by Kirk Jalbert, assistant professor in the School for the Future of Innovation in Society, ASU researchers review 51 critical infrastructure trespass bills introduced by U.S. state legislatures categorizing anti-pipeline protesters as threats. The team argues that the bills strengthen petro-security state powers and limit public discourse on pipelines, exacerbating patterns of social injustice.

Learn more

Researchers to examine how organizations help African farmers adjust to climate change

Hallie Eakin, professor in Sustainability, and Mauricio

Bellon Corrales, research professor with the Swette Center for Sustainable Food Systems, are partnering with Eric Welch, professor in Public Affairs, to examine how to better understand the roles public, private and nonprofit organizations play in helping African farmers adapt to the growing impact of climate change. The two-year Accelerating Climate Adaptation via Meso-level Integration project is funded by a \$1.25 million grant to ASU from the Bill & Melinda Gates Foundation.



A man carries a basket of cocoa beans at a farm in the West African nation of Ghana. Photo courtesy David Greenwood-Haigh/Pixabay

Learn more



Accelerating the transformation to a sustainable food economy by strengthening the sustainable entrepreneurial ecosystem

Global Futures researchers evaluated 16 projects intended to develop sustainable entrepreneurial ecosystem (SEE) functioning to accelerate transformation to a sustainable food economy in the Greater Phoenix Area of Arizona. Based on the framework, all but one project had positive effects on the SEE.

Learn more

Inclusive, scientific policy key for US to compete globally, experts say

<u>David Guston</u>, Foundation Professor and associate vice provost for Discovery, Engagement and Outcomes

within the Global Futures Laboratory, joined by other experts, discussed how new policy tools and anticipatory governance could lead to a more inclusive, robust and globally competitive innovation ecosystem. The event was hosted by the Consortium for Science, Policy and Outcomes.



Learn more

People



Arthur Daemmrich named director of Consortium for Science, Policy & Outcomes

The new director of the <u>Consortium for Science</u>, <u>Policy & Outcomes</u> (CSPO), Arthur Daemmrich, will lead the intellectual network in fostering new policies, advancing the consortium's work in participatory technology assessment and engaging in important discussions about emerging science and technology.

Learn more

In The Conversation

<u>Green jobs are booming, but too few employees</u> <u>have sustainability skills to fill them – here are 4</u>

ways to close the gap

Christopher Boon, professor in the ASU School of Sustainability and Karen C. Seto, professor of Geography and Urbanization Science at Yale University

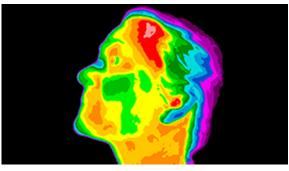




Save the Date: Earth Day

Check our <u>Earth Week web page</u> with programming and events hosted across ASU's campuses beginning March 1.

April 21
Rob and Melani Walton Center for Planetary Health



23rd International Congress of Biometeorology

May 14-17 Memorial Union

Register









