October 2023



Arizona State University

# **Global Futures: Now**



"Mankind must put an end to war before war puts an end to mankind." — John F. Kennedy

A primary concern when we consider the future of our world must be societal stability. Without it, addressing all the issues global populations face on a planet under duress is difficult, if not impossible.

On October 7, 2023, the world moved further into a state of increasing conflict as the people of Israel and Gaza were thrust into war after the attacks by Hamas. The severity of the conflict led to a humanitarian crisis that triggered worldwide protests and interventions from around the globe by a variety of governments and groups with deeply held belief systems. Reactions to the rapidly escalating conflict reveal the diverging views of the situation. There is no telling how long the conflict will last, how wide it will span, or how far its effects will permeate. What is known, however, is that tensions in the Middle East have already begun to reverberate around the world in intricate ways.

Regional and global instability are inextricably linked. Over the past century, advancements in technology combined with international supply chain growth have streamlined the cross-border trade of goods, capital, and information, creating a more interdependent global economy. <u>Globalization</u> is a feature of the modern world that boosts connectivity across regions, cultures, and flows of investment. Recently, however, globalization has been threatened by multiple worldwide and regional disruptions, including the 2008 financial crisis, the COVID-19 pandemic, and the Russian invasion of Ukraine. These issues are highlighted by the interruptions of globally linked supply chains. In an attempt to shield their domestic industries, countries <u>have begun to impose protectionist</u> policies that have contributed to economic fracturing. While the conflict in the Middle East has yet to show the full extent of its global impact, Russia's invasion of Ukraine caused significant disruptions to global food markets that still resonate today.

Before the war broke out in February 2022, both Russia and Ukraine were among the world's top producers of wheat and barley. Now, as Russian forces occupy areas in Ukraine that were once sites of historical wheat production, the global grain supply has created food shortages, spiking food prices around the world. These shortages have severely impacted developing countries in Africa and the Middle East that largely depend on grain imports to feed their populations. Additionally, Russia's breach of Ukraine's Kakhovka dam in June of this year and the termination of the Black Sea Grain Initiative in July have the potential to further destabilize the global grain supply and exacerbate food shortages. Only time will tell if the conflict in the Middle East will have a similar effect on global energy markets.

The instability in the Middle East — heightened by the eruption of the conflict between Israel and Hamas — could slow down efforts to address some of the most pressing challenges including the climate negotiations at the <u>2023 UN</u> <u>Climate Change Conference, commonly known as COP28</u>. Commencing at the end of November in Dubai, United Arab Emirates, COP28 will convene countries and global stakeholders to assess progress in cutting greenhouse emissions and phasing out fossil fuel per the aims of the Paris Climate Agreement.

This is all happening at a time when the political system here in the United States is facing its own unforeseen challenges. The threat of a government shutdown and difficult leadership transitions affect the capacity of the government to react swiftly during times of multiple international crises.

The socio-political instability in both the Middle East and Ukraine, as well as the difficulties to provide stable political conditions in the United States Congress, remind us of the importance of our work at the Julie Ann Wrigley Global Futures Laboratory. Our responsibility — to create ethical and equitable solutions that improve the quality of life for all humankind — must be carried out with speed and efficiency. To do this, we must reassess how we engage with the entities responsible for decision-making on all scales, locally and globally. We must provide decision makers with tools and options that enable anticipatory action. It is through these actions that we may shape a future in which humanity can thrive in harmony with the life-supporting systems of our planet.

Petro Shlow

Peter Schlosser Vice President and Vice Provost of Global Futures

# Futurecast

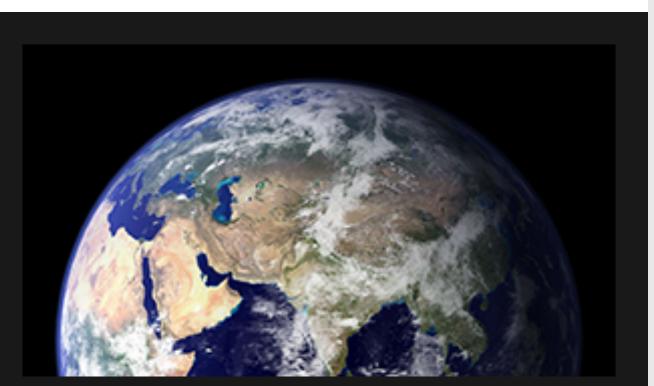


# Edition 5 | Fall 2023

In this issue of Futurecast, we explore a number of topics including electrification, a conversation with Arizona's State Climatologist Erinanne Saffell, the deployment of humanitarian aid in the face of global challenges and a museum exhibition that explores what Arizona may look like for the next generation.



# News

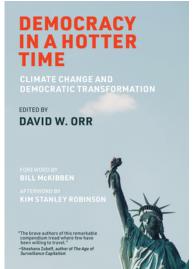


## Read the 10 "Must Haves"

The 10 "Must Haves" explore transformational pathways for a sustainable and

just future where all life on Earth can thrive. The "Must Haves" were published in Global Sustainability, an open access journal from Cambridge University Press. The initiative was conceptualized by The Earth League and the participants of the 2022 Global Futures Conference.

**Read more** 



# New book focusing on 'Democracy in a Hotter Time' features Global Futures scientists and scholars

The new book compiled and edited by ASU professor of practice <u>David W. Orr</u> features essays from a variety of experts with insights into how to survive the "long emergency" ahead. Chapters authors include ASU President <u>Michael Crow</u> with <u>William Dabars</u>, <u>David Guston</u> and <u>Duke Reiter</u>.

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## Research: Accelerating Decarbonization in the United States

<u>Clark Miller</u>, professor and director of the Center for Energy & Society in the School for the Future of Innovation in Society, was a committee member for the "Accelerating Decarbonization in the United



States" report. Committee members who contributed to the report are experts from a variety of backgrounds in energy technologies, economics, social sciences, physical sciences and policy analysis. The report gives recommendations to help policymakers successfully implement an equitable energy transition.

### **Read more**

Climate Change in the Federated States of Micronesia

## Research: Climate Change in the Federated States of Micronesia: Indicators and Considerations for Key Sectors

Zena Grecni, a Senior Global Futures Scientist, was an author in a report made possible by the East-West Center, ASU and the University of Hawai'i, along with contributions from local government, NGOs and researchers. The report from the Pacific Islands Regional Climate Assessment is one in a series of reports aimed at assessing the state of knowledge about climate change indicators, impacts and adaptive capacity of the US-Affiliated Pacific Islands and the Hawaiian archipelago.

### Read more

### ASU Drylab initiative aims to

# change Arizonans' relationship with water

A new initiative sponsored by ASU's Impact Water – Arizona, part of the <u>Arizona Water Innovation</u> <u>Initiative</u>, Desert Humanities Initiative and Center for Behavior, Institutions and the Environment, kicked off Oct. 1. A 30-day challenge offers a series of new prompts and action items to commit to. Participants can leave comments on social media to share the experience.



### **Read more**



# GFL team providing support of NSF project to aid coastal climate resilience

Senior Global Futures Scientists are part of a team that will use funding from the National Science Foundation to help multiple communities respond to coastal erosion, flooding, permafrost thaw and other hazards attributed to climate change. The three researchers from the Global Futures Laboratory, <u>Shauna BurnSilver</u>, <u>Abigail York</u> and <u>Marty Anderies</u>, are also professors for the School of Human Evolution and Social Change.

### Read more

# Peter Schlosser, Greg Asner and Erin Carr Jordan join ASU/NEON collaboration

ASU and the National Ecological Observatory Network (NEON) announced the continuation of their partnership to house a national biorepository. ASU's Biodiversity Knowledge Integration Center and Natural History Collections in Tempe will house millions of biological samples collected over the next three decades from 81 field sites across the U.S. <u>Greg Asner, Erin Carr Jordan and Peter Schlosser</u> will add new components in the areas of online education and remote sensing to the project, thereby increasing its technical capacity and societal impact.



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## ASU team in \$10M XPRIZE contest combines Indigenous wisdom, AI data analysis

Six ASU researchers, including School of Sustainability professor and Senior Global Futures Scientist <u>David Manuel-Navarrete</u>, Senior Global Futures Scientists <u>Garth Paine</u>, <u>Tod Swanson</u> and <u>Nicholas Pilarski</u>, are part of a team that's creating a new way to measure rainforest biodiversity in the \$10 million XPRIZE Foundation competition. The team, whose aim is to create a new way to measure rainforest biodiversity using artificial intelligence data analysis and the knowledge of the Indigenous people in the region, is one of six finalists in the competition.

### Read more

# GFL experts awarded competitive funding through Bipartisan Infrastructure Law

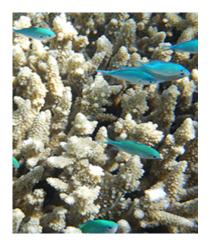
Recent funding from the Bipartisan Infrastructure Law provided \$3 billion for NOAA to take action over five years in the areas of habitat restoration, coastal resilience, and weather forecasting infrastructure. "Stories as science: Integrating lived experience and community knowledge into actionable adaptation science in Pacific Northwest and Pacific Islands regions" is led by Senior Global Futures Scientist <u>Victoria Keener</u>. "Enabling equitable adaptation to changing coastal flood risks through communityengaged modeling in the Carolinas and Pacific Islands regions" is led by Senior Global Futures Scientist <u>Zena Grecni.</u>



### Read more

## 'Āko'ako'a program offers potential solutions to threats posed by Hawai'i's cesspools

In an article for Hawaii Business, Greg Asner says



cesspools pose a significant threat to coral reefs in Hawai'i'. However, this underwater problem has solutions that start with on-land operations. Through 'Āko'ako'a, a program that focuses on restoring corals along the 120 miles of reefs off the west coast of Hawai'i Island, Asner is working with community members to drive positive outcomes for coral reefs.

Read more

# Recognitions

# ASU water expert Amber Wutich named a 2023 MacArthur Fellow

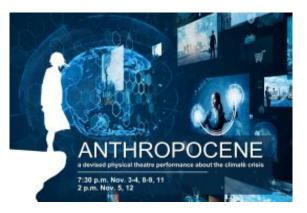
The "genius grant" is awarded to talented individuals who have shown exceptional originality in and dedication to their creative pursuits. Each fellowship comes with an \$800,000 "no strings attached" stipend to be used by the awardee as they see fit. <u>Amber Wutich</u>, who has been studying water insecurity for the last two decades, is one of only three ASU faculty to receive the award while at the university.



### **Read more**

# **Events**





## **Exploration of the Energy Anthropocene** Transition in the **Transportation Sector**

Nathan Parker is speaking in a research seminar from the School of Sustainability that brings together faculty and students engaged in sustainability research to present and discuss their work.

November 1, 12:00 pm WCPH 107



Anthropocene is a theatre performance that examines our current geological epoch — an age in which human activity has significantly impacted our climate and environment.

November 3-12 Galvin Playhouse Nelson Fine Arts Center 51 E. 10th St. Tempe, AZ 85287





FOCUSED EVENT -HEAR FROM & NETWORK WITH Journalists Policy makers Scientists Influencers



THIS EVENT IS FREE TO ATTEND AND REFRESHMENTS ARE PROVIDED

# A Celebration for Resilience

Acclaimed chef and food justice advocate Chef José Andrés will discuss the importance of promoting community resilience through food security with the help of comedian, performance artist and Gammage Artist in Residence Kristina Wong.

November 8, 7:30-9:00 p.m. 1200 S Forest Ave, Tempe, AZ 85281

# The 19th News Event on Climate Change, Sustainability and Solutions

The 19th News is headed to Arizona this fall for a dynamic live event to address the threat of climate change and explore ambitious sustainability solutions.

November 13, 3:30-5:00 p.m. Walton Center for Planetary Health





# **Global Futures Viewbook**

# We must rediscover our planet and our relationship with it.

What does this mean, exactly? For the faculty, students, researchers and global

partners of the Julie Ann Wrigley Global Futures Laboratory, it means a commitment to urgently exploring pathways to impactful solutions and decisions that address the challenges we have caused through resource extraction and thoughtless consumption as part of a relentless pursuit of "progress."

We believe better is possible.

Learn more



# **#1** in the U.S. for global impact -Times Higher Education, 2021

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