EARTH MONTH | Putting the Spotlight on SESYNC Teams

Close Out Earth Month by Learning About SESYNC Teams' Work on Global Sustainability

Just because April is drawing to a close doesn't mean we can't continue the celebration of Earth Month all year long! Get to know three SESYNC teams below whose work has focused on the intersection of humans and climate change. Then, take a look at some of their resulting research products to see how their research is contributing to building a more sustainable future.

**Sea Level Rise & Migration**

A forecast of the timing, locations, sequence, and likeliest destinations of populations displaced by sea level rise and coastal extremes. [Read more.](#)

**Principal Investigators:**

David Wrathall, Oregon State University
Valerie Mueller, Arizona State University

Read their work in *Nature Climate Change*:

Meeting the looming policy challenge of sea-level change and human migration

[https://doi.org/10.1038/s41558-019-0640-4](https://doi.org/10.1038/s41558-019-0640-4)

Read the news release about this article from SESYNC:

New Modeling Will Shed Light on the Ways Policy Decisions Affect Migration
Geoengineering Scenarios

New scenarios and models for climate engineering. Read more.

Principal Investigators:
Simon Nicholson, American University
Christopher Trisos, University of Cape Town

Try out their online game Survive the Century and read its accompanying book, which both emerged from this Pursuit. https://survivethecentury.net/

Get more background on the game's creation here from SESYNC: SESYNC Researchers Develop Game That Challenges Users to "Survive the Century"

Ecoengineering Resilience

Climate change and water resources adaptation: Decision scaling and integrated eco-engineering resilience. Read more.

Principal Investigators:
N. LeRoy Poff, Colorado State University
John H. Matthews, Alliance for Global Water Adaptation

Learn about the framework they developed for water resources planners, managers, and engineers:
Climate Risk Informed Decision Analysis (CRIDA): Collaborative Water Resources Planning for an Uncertain Future

Read about how UNESCO has since adopted CRIDA in this brief interview with SESYNC: Framework Developed by SESYNC Team Adopted by UNESCO

RESOURCES | Putting the Focus on Mother Earth

Explore SESYNC Resources on Sustainability-Related Topics
Lesson: The Wicked Plastics Problem
This lesson provides an overview of optimal scenarios for the next decade of plastic-waste management. Learners will review recent science that details strategies for waste reduction; research and briefly present findings on a waste-reduction strategy; and synthesize results across strategies. Learn more.

A Dialogue on Indigenous Knowledge and Science in Co-Creation
SESYNC's Dr. Heidi Scott speaks with Dr. Billy van Uitregt, a senior lecturer at Victoria University of Wellington, Te Herenga Waka. Dr. van Uitregt, who is of Māori descent, provides his perspective on the integration of Indigenous knowledge, values, and worldviews into Western science and current environmental management practices. Learn more.

Lesson: Moving Human Societies from Parasitism to Mutualism with Earth
In this lesson, learners will consider how specific human activities tend toward a parasitic or mutualistic relationship with Earth. With a socio-environmental paradigm shift in our role from parasite to mutualist, we may nurse the recovery of Earth systems that support and sustain us, even as we enjoy new benefits to our own physical, mental, and cultural well-being. Learn more.

PRESS RELEASE | New SESYNC Research in Science
"Drop industrial agriculture": Major study reports that people and the environment both benefit from diversified farming, while bottom lines also thrive.

Mixing livestock and crops; integrating flower strips and trees, conserving water and soil; and much more: Massive new global study, led by the University of Copenhagen and the University of Hohenheim, has examined the effects of diversified agriculture. The conclusion is abundantly clear: positive effects increase with every measure, while
negative effects are hard to find.

Laura Vang Rasmussen of the University of Copenhagen can finally wipe the sweat from her brow. For the last four years, she has served as the link between 58 researchers on 5 continents and as the lead author of a major agricultural study that gathered data from 24 research projects, along with colleague Ingo Grass of the University of Hohenheim in Germany.

The hard work has finally paid off. Their research article, just published in the prestigious journal *Science*, delivers a clear and well-founded message to agriculture: "Drop monoculture and industrial thinking and diversify the way you farm—it pays off," as Rasmussen puts it. Read more.