Sustainable Living

For decades, scientists around the globe have been sounding the alarm that our planet is unable to indefinitely sustain the pressures created by favoring economic prosperity over societal and environmental considerations. As a result, the Earth is undergoing a biodiversity crisis that pits humans against nature. In September, the World Wildlife Fund reported that global mammal, bird, fish, amphibian, and reptile population sizes plunged by 68 percent from 1970–2016.¹ Earlier this year, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) found that 1 million animal and plant species are threatened with extinction, leading to a decline in ecosystem health.² Unstable global and local ecosystems, in turn, can contribute to food insecurity and declining economies and quality of life.

“The Report also tells us that it is not too late to make a difference, but only if we start now at every level from local to global,” Sir Richard Watson, IPBES Chair, said. “Through ‘transformative change’, nature can still be conserved, restored and used sustainably – this is also key to meeting most other global goals. By transformative change, we mean a fundamental, system-wide reorganization across technological, economic and social factors, including paradigms, goals and values.”

The Sustainable Living track of the ASTC New Frontiers Summit is grounded in this theory of change and focuses on solutions that are already being implemented to move us equitably and inclusively towards transformative change. Discussions in this track will probe the inherent, but workable, tensions between the role of individuals, the private sector, and governance, in achieving collective action for the benefit of all. The work is underpinned by the need for innovative science, technology, policy, education, and communication strategies (among others). Featured speakers will explore what it means to disentangle these tensions and work in partnership with the natural world with tools that create an inclusive, equitable, and sustainable future. Participants will engage with leaders in sustainability innovation who are questioning norms, catalyzing change, sparking new partnerships, and charting a course towards this equitable future. Specific track themes will provide real-world examples of how this future is taking shape.

Track Themes and Questions for Participants

1. **Reimagining the rural-urban interface:** What does sustainability mean for land use and food production? This theme will explore farming innovations that use less water and fewer pesticides to maximize productivity, reduce impacts to land, and improve access to fresh food. **What are the limitations of urban agriculture? How can rural farmers innovate to be less resource-intensive and restorative?**

² [https://ipbes.net/news/Media-Release-Global-Assessment#:~:text=The%20Report%20finds%20that%20around,20%25%2C%20mostly%20since%201900.](https://ipbes.net/news/Media-Release-Global-Assessment#:~:text=The%20Report%20finds%20that%20around,20%25%2C%20mostly%20since%201900.)
2. Rethinking our throw-away culture: The convenience of throw-away culture favors consumerism over sustainability. This theme will explore the role that small businesses and local governments can play by reducing their waste and moving towards eliminating it altogether. What technology innovations and governance structures are required for us to transition from a “take, make, waste” economy to a “circular economy” that is designed to be regenerative?

3. Environmental justice and sustainability: Sustainable living will not be realized if the communities living on the front lines of environmental degradation do not have equal access to environmental protection. This theme will focus on shifting the relationship between human activity and our natural world in ways that are centered on ensuring equity and justice for all. How do we disrupt the existing economic and power structures to enable a just transition to a healthy planet that benefits all?

Additional Resources

- A healthy economy should be designed to thrive, not grow, Kate Raworth, Renegade economist (15-minute TED talk)
- Green Dreamer podcast, Teresa Coady, Architect and author of Rebuilding Earth (45-minute podcast)
- Can we create the perfect farm?, Brent Loken, Global Food Lead Scientist, World Wildlife Fund (7-minute TED talk)
- Just Transition Alaska
- A Strategic Framework for Just Transition, Movement Generation
- Circular Economy, Ellen Macarthur Foundation
- Cradle-to-Cradle concept

Glossary of Terms

1. **Sustainable Development**—Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainability is often thought of as a long-term goal (i.e., a more sustainable world), while sustainable development refers to the many processes and pathways to achieving it (e.g., sustainable agriculture and forestry, sustainable production and consumption, good government, research and technology transfer, education and training, etc.).

2. **Circular Economy**—A framework for an economy that is restorative and regenerative by design.

---

4. [https://www.ellenmacarthurfoundation.org/circular-economy/concept](https://www.ellenmacarthurfoundation.org/circular-economy/concept)
Special thanks to Frontier Ambassador Fellow Dr. Kelly Kryc for all her work to shape and curate the content, including this brief, for the Sustainable Living track of the 2020 New Frontiers Virtual National Summit.

Founded in 1973, the Association of Science and Technology Centers (ASTC) is a network of nearly 700 science and technology centers and museums, and allied organizations, engaging more than 110 million people annually across North America and in almost 50 countries.