



# Global Council for Science and the Environment

*Formerly the National Council for Science and the Environment*

## GCSE 2022 Annual Conference Vision Statement and Theme **The Road to 2030: Tipping Points for a Climate Positive Future**

Over the past decade, the concept of tipping points has become virtually synonymous with a doom and gloom narrative for climate change. Thresholds warn of looming peril, points at which a tiny change could push a system into an undesirable state, one that would be hard or impossible to reverse. [Climate tipping points](#), from collapsing ice sheets and thawing permafrost, to shifting monsoons and forest dieback, warn of these impending points of no return.

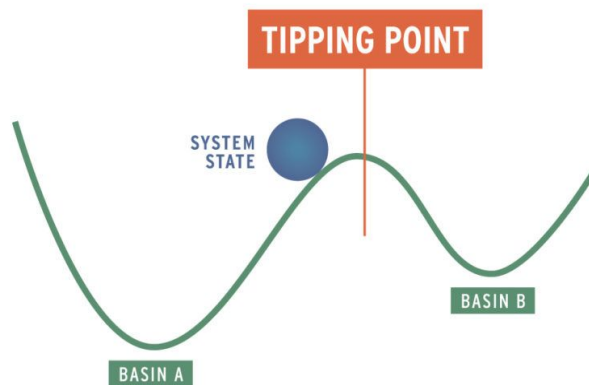


Illustration by Andrew Bernier, adapted from Walker, B. & Salt, D. (2006) Resilience Thinking: Sustaining Ecosystems and People in a Changing World. Island Press: Washington, DC.

Much less discussed, is a counter narrative on tipping points, where jumpstarting the recovery of natural systems promotes catalytic change toward more desirable stable states, accelerating a transition to a climate positive future, one that includes just and equitable access to resources and representation. In these cases, deliberate action can springboard natural feedback loops toward regeneration in both human and social systems, providing additional benefit to nature and people.

Critical governance milestones are rapidly approaching, such as the **2030** benchmark for 17 **Sustainable Development Goals** with 169 associated targets; the **2022** milestone of **Stockholm +50**, celebrating the 50th anniversary of the **UN Conference on the Human Environment in 1972** and setting interim targets toward 2030; and the **Convention on Biological Diversity** which provides a global legal framework for action on biodiversity, marks its 30th anniversary in 2022. With these approaching milestones, the science, technology, and decision-maker communities have an opportunity to articulate goals to harness the tipping points in a climate positive direction rather than dwell on seemingly imminent catastrophic outcomes. To affect this shift will take collective, transdisciplinary, and intentional work paired with the most current science to drive knowledge-informed decision-making across government and industry.

At the **2022 Annual Conference of the Global Council for Science and the Environment (GCSE)**, we invite you to join us to examine the role of tipping points in natural and social systems, and in government and policy, to explore a collective goal of achieving a climate positive future. This conference theme goes deep into the core mission of GCSE, to improve the scientific basis of environmental decision-making, shining light on the complexity of how policy, technology, and society can most strategically use science from disparate fields to help the planet heal itself as we move toward key milestones and societal goals.

Of primary consideration is how to ensure that in working toward thresholds for recovery, we consider the vulnerabilities of people and ecosystems most at risk and impacted, recognizing that climate change poses disproportionate threats to those underserved, who often stand the most to lose and least to gain.

The **GCSE 2022 Annual Conference** will focus on the following **Priority Areas**:

PRIORITY AREA	SUBTOPICS
Physical thresholds in climate systems	<ul style="list-style-type: none"> <li>• Weather</li> <li>• Water, ice, and permafrost</li> <li>• Deforestation</li> <li>• Biodiversity</li> <li>• Governance that connects systems, harnessing tipping points for positive change; avoiding negative transitions</li> </ul>
Thresholds in coupled social-ecological-technological systems	<ul style="list-style-type: none"> <li>• Food systems</li> <li>• Energy systems</li> <li>• Water</li> <li>• Multilateral governance and local solutions</li> <li>• Thresholds for behavior change</li> </ul>
Resilience and Tradeoffs	<ul style="list-style-type: none"> <li>• Green infrastructure</li> <li>• Health and environment linkages</li> <li>• Post-pandemic recovery</li> </ul>
Climate Positive Technology and Innovation	<ul style="list-style-type: none"> <li>• Energy, waste and transportation.</li> <li>• Incorporating climate positive engineering in college campuses</li> <li>• Innovation in nuclear energy</li> <li>• Technology and transitions</li> </ul>
Disproportionality	<ul style="list-style-type: none"> <li>• Underserved populations</li> <li>• Frontline communities</li> <li>• Climate justice and vulnerabilities</li> </ul>
Targets and Timelines	<ul style="list-style-type: none"> <li>• SDGs - 2030 and beyond</li> <li>• Stockholm +50, 2022</li> <li>• Warming targets and the Paris Climate Agreement</li> </ul>