**Ecological Crises & Organizations Workshop Activity Proposal: Data Workshop**

Title: Data Workshop to Connect Companies to Ecosystem Impacts

Author: Nicholas Poggioli

Affiliation: Appalachian State University

Email: [poggiolin@appstate.edu](mailto:poggiolin@appstate.edu)

I propose a workshop to convene scholars interested in overcoming data challenges related to connecting companies to the ecosystems they use and impact. Efforts to link companies to ecosystems have been ongoing for several decades. Early work in this area focused on voluntary supply chain traceability and disclosures in which companies at each stage of a production and consumption value chain seek to understand and disclose upstream product transactions between organizations. This has become somewhat common in global agribusiness. For example, Nestlé discloses upstream organizational transactions in its supply chains for its primary commodities, including cocoa, coffee, hazelnuts, milk, palm oil, and sugar.[[1]](#footnote-1)

However, it has become clear that disclosure based on transactions between organizations is inadequate for linking companies to ecosystems or understanding how to attribute positive or negative ecosystem impacts to companies that cause those impacts. This has led to traceability research focused on units of analysis other than transactions, such as “hotspots” of environmental benefits and harms caused by production and consumption systems (Cho et al., 2021; Goldstein & Newell, 2019, 2020) or landscapes in frameworks like the “landscale” approach (LANDSCALE, 2024).

The goals of this workshop will be:

1. Convene scholars interested in the research problem of how to connect companies, regardless of their position in the value chain, to the ecosystems those companies require, use, and impact for their operations.
2. Discuss how to overcome data challenges associated with connecting companies to ecosystems they use.
3. Discuss how to overcome data challenges in assessing the condition of an ecosystem and attributing impacts on that condition to companies that use the ecosystem.

Goal #3 is especially important for attributing ecosystem impacts to the operation of companies. Such attribution has been a critical element of sustainable business research for at least 30 years, beginning at least with Starik & Rands (1995) theory of ecologically sustainable organizations that relied on assessing whether an organization’s operations negatively impacted the limiting factors of ecosystems. However, since then, there has been little or no empirical research that has assessed such impacts, largely because it has often been empirically challenging to (1) link companies to the specific ecosystems they use and then (2) evaluate the ecological condition of those ecosystems in ways that capture the impact of the company on that condition. The recent Convention on Biological Diversity has spurred efforts to link companies to ecosystems and ecosystem conditions (UNEP-WCMC et al., 2023; WCMC, 2022, 2023), and a workshop on this empirical question would be a useful event for convening scholars interested in this question.

Cho, K., Goldstein, B., Gounaridis, D., & Newell, J. P. (2021). Where does your guacamole come from? Detecting deforestation associated with the export of avocados from Mexico to the United States. *Journal of Environmental Management*, *278*, 111482. https://doi.org/10.1016/j.jenvman.2020.111482

Goldstein, B., & Newell, J. (2019). Why Academics Should Study the Supply Chains of Specific Corporations. *Journal of Industrial Ecology*, 1–12. https://doi.org/10.1111/jiec.12932

Goldstein, B., & Newell, J. (2020). How to track corporate actors across space and time. *Ecological Economics*, *169*. https://doi.org/10.1016/j.ecolecon.2019.106492

LANDSCALE. (2024). *LANDSCALE - Powering Landscape Sustainability*. https://www.landscale.org/

Starik, M., & Rands, G. P. (1995). Weaving an Integrated Web: Multilevel and Multisystem Perspectives of Ecologically Sustainable Organizations. *Academy of Management Review*, *20*(4), 908–935. https://doi.org/10.5465/AMR.1995.9512280025

UNEP-WCMC, Capitals Coalition, Arcadis, ICF, & WCMC Europe. (2023). *Measuring ecosystem condition—A primer for business*.

WCMC. (2022, March 23). *Taking responsibility for supply chain impacts: Who, why and how? -*. http://tradehub.earth/2022/03/23/taking-responsibility-for-supply-chain-impacts-who-why-and-how/

WCMC. (2023, November). *Towards ecosystem-level thinking by the private sector*. UNEP-WCMC. http://production-wordpress.unep-wcmc.org/towards-ecosystem-level-thinking-by-the-private-sector/

1. See <https://www.nestle.com/sustainability/sustainable-sourcing/supply-chain-disclosure>. [↑](#footnote-ref-1)