

# Yale *Tobin Center* *for Economic Policy*

**November 9-10, 2023**

As part of the Yale Climate, Environment & Growth Conference, the Tobin Center assembled significant policy and research commitments from partners across the world. These contributions will help move beyond gross domestic product, aiming to develop economic measurements that more accurately reflect environmental sustainability. The commitments below reflect a variety of new policies and products from leading organizations, each contributing to the integration of climate change considerations within economic indicators. We also highlight new research, funding, and events, charting a course to redefine economic success in harmony with environmental objectives.

## **Policies, Products, and Events**

- **Capitals Coalition** developed the Natural Capital Protocol and the Social & Human Capital Protocol to help businesses to identify measure and value their impacts and dependencies on natural and social and human capital. [More info](#)
- **Capitals Coalition** published "Our Value Report" and released a Natural Capital Management Methodology. [Report](#) | [Methodology](#)
- **Carnegie Mellon University** developed an index of pollution-damage adjusted economic activity that tracks regional pollution intensity of output, supported by the Heinz Endowments and Tepper School Alumni, with technical modeling supported by the USDOE. [More info](#)
- **Cornell's Atkinson Center for Sustainability and the U.S. EPA** Sponsored the 6th Annual Social Cost of Water Pollution Workshop. [More info](#)
- **Global Ocean Accounts Partnership (GOAP)** is working to monitor economic and environmental changes in a robust and standardizes way. GOAP enables countries and other stakeholders to go Beyond GDP to measure and manage progress toward ocean sustainable development. [More info](#)
- **International Institute for Sustainable Development (IISD)**'s 'Measuring Wealth to Promote Sustainable Development' project is expanding, and working with partners in Ethiopia, Trinidad and Tobago, and Indonesia to expand the push to measure well-being beyond GDP. [More info](#)
- **The International Monetary Fund (IMF)** has established an Environment and Climate Change Statistics Program. [More info](#)

- **Intrinsic Exchange Group** is introducing a new type of company whose equity captures the value of natural assets and the ecosystem services they produce. ‘Natural Asset Companies (NACs)’ are chartered to protect, restore, and grow the natural assets under their management to foster healthy ecosystems. [More info](#)
- **Network for Greening the Financial System (NGFS)** is creating a conceptual framework to guide action by central banks and supervisors on nature-related financial risks. [More info](#)
- **Organization for Economic Co-operation and Development (OECD)** developed a supervisory framework for assessing nature-related financial risks. [More info](#)
- **Taskforce on Nature-related Financial Disclosures (TNFD)** is implementing disclosure recommendations to enable business and finance to integrate nature into decision making. [More info](#)
- **UN World Tourism Organization’s** ‘Measuring the Sustainability of Tourism (MST)’ Initiative is finalizing an internationally agreed statistical framework to measure the impacts and dependencies of tourism on the economy, society, and the environment. [More info](#)
- **United Nations Statistical Commission (UNSC)** is revising its System of National Accounts (SNA) 2025 to include new chapters covering the measurement of well-being and sustainability, and accounting for the depletion of natural resources. [More info](#)
- **United Nations System of Environmental-Economic Accounting (SEEA)** adopted Ecosystem Accounting in March 2021 that is now being utilized in various contexts like the US Natural Capital Accounting strategy. [More info](#)
- **US Geological Survey (USGS)** has made available water use estimates from 2000 to 2020 for major categories in the United States, including self-supplied thermoelectric power generation, self-supplied irrigation, and public supply. [More info](#)
- **World Bank** is preparing the next edition of the Changing Wealth of Nations (CWON) report, set for release in May 2024. [More info](#)

## Research

1. **Banzhaf, Spencer (2023):** “Pricing the Priceless: A History of Environmental Economics.” [More info](#)
2. **Barbier, E.B. (2023):** "Progress towards the Sustainable Development Goals and natural capital in emerging market and developing economies," in UNEP's Inclusive Wealth Report 2023. [More info](#)

3. **Bastien-Olvera, B. A., & Moore, F. C. (2022):** “Climate Impacts on Natural Capital: Consequences for the Social Cost of Carbon.” [More info](#)
4. **Fenichel, Eli (2024):** “A new era of economic measurement for the environment and natural capital.” Forthcoming Rev Environ Econ Policy.
5. **Galanter, A.E., et al. (2023):** “Thermoelectric-power water use reanalysis for the 2008-2020 period by power plant, month, and year for the conterminous United States.” [More info](#)
6. **Gorman Sanisaca, L.E., et al. (2023):** “Thermoelectric-power condenser duty estimates by month and cooling type for use to calculate water use by power plant for the 2008-2020 reanalysis period for the conterminous United States.” [More info](#)
7. **Haynes, J.V., et al. (2023):** “Monthly crop irrigation withdrawals and efficiencies by HUC12 watershed for years 2000-2020 within the conterminous United States.” [More info](#)
8. **Hulten, C. and Nakamura, L. (2022):** “Is GDP Becoming Obsolete? The 'Beyond GDP' Debate.” [More info](#)
9. **Keiser, D.A., et al. (2022):** “The Social Costs of Nutrient Pollution in the United States.” [More info](#)
10. **Keiser, D.A., et al. (2023):** “Water Works: Causes and Consequences of Safe Drinking Water in America.” [More info](#)
11. **Luukkonen, C.L., et al. (2023):** “Public supply water use reanalysis for the 2000-2020 period by HUC12, month, and year for the conterminous United States.” [More info](#)
12. **Martin, D.J., et al. (2023):** “Irrigation water use reanalysis for the 2000-20 period by HUC12, month, and year for the conterminous United States.” [More info](#)
13. **Nakamura, L. and Sliker, B. (2023):** “Climate Shocks in the Anthropocene Era: Should Net Domestic Product Be Affected by Climate Disasters.” [More info](#)
14. **Natori, Y., et al. (2023):** “Nature-Based Solutions in the Private Sector: Policy Opportunities for Sustainability in a Post-Pandemic World.” [More info](#)

## Funding

1. **Knobloch Family Foundation** awarded a \$1.43M grant to develop and scale up research on natural capital and its economic measurement—advancing critical knowledge to inform US and global policy. Led by Yale’s Eli Fenichel, the Tobin Center will supplement the efforts with research support and assist Fenichel to amplify the impact of findings in the policy arena.

2. **National Science Foundation (NSF) Coupled Natural Human Systems Program** awarded UC Davis' Frances C. Moore a \$750,000 grant to quantify climate change damages to natural capital. [More info](#)