Center for Biodiversity Outcomes

Arizona State University

A Return on Investment Approach to Biodiversity Conservation for Business

The chronic resource shortage in conservation means that conservation action needs to be as efficient and effective as possible. Thus, approaches that enable decision-makers to estimate the conservation return on investment (ROI) are essential for achieving the world's conservation goals.

What is a return on investment?

Return on investment or return on costs is the ratio between net income and investment.

How do we use ROI?

We have pioneered an approach to quantify the potential biodiversity benefits of land-use choices and piloted how to pair this tool with socioeconomic data to estimate biodiversity ROI for conservation actions that guide agricultural expansion.

We have also established a web-based resource that enables conservation scientists to share and obtain conservation costing skills and data. Our preliminary work demonstrates how investments made by governments, NGOs, and the private sector impact biodiversity goals

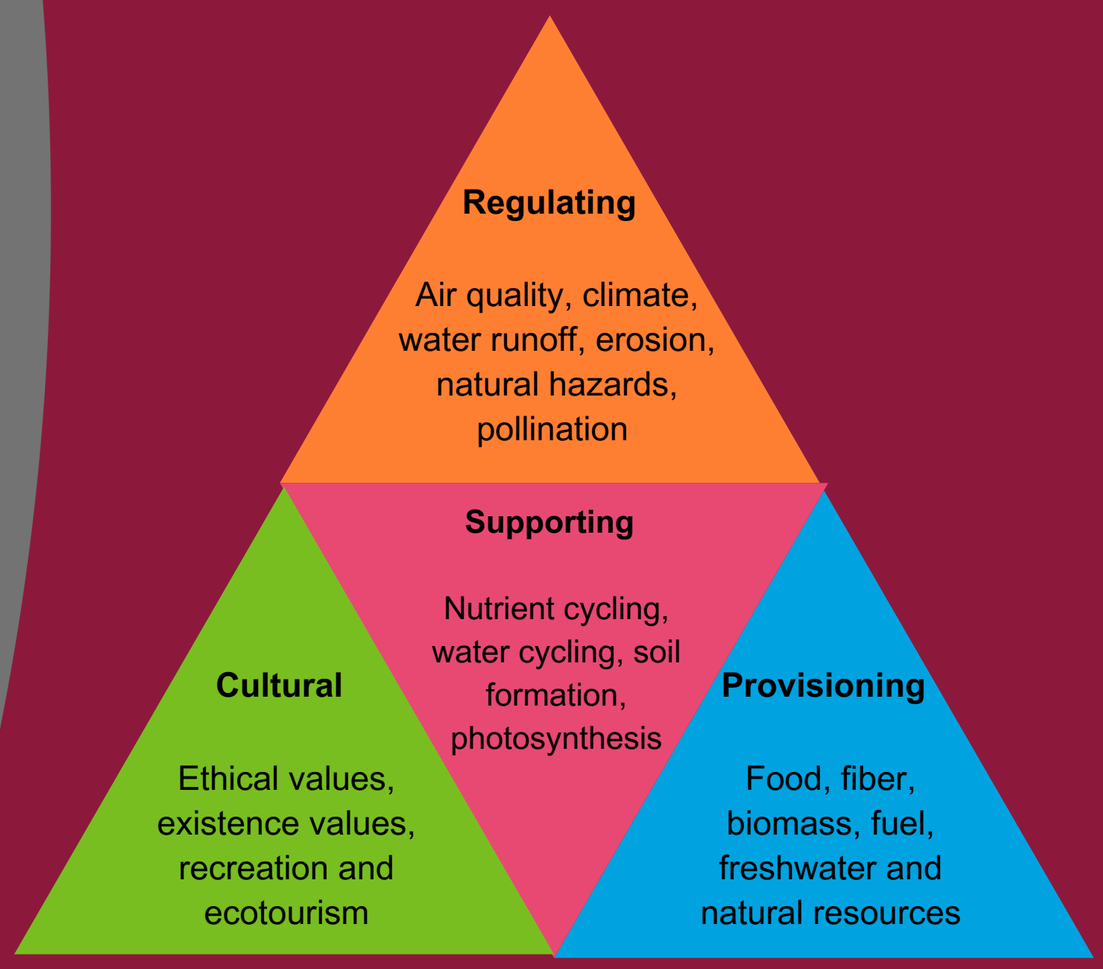
Who are we?

We envision a world where the diversity of life on Earth is valued and sustained for the benefit of all.

Our mission is to enable the discoveries and solutions needed to sustain Earth's biodiversity in a time of rapid biophysical, institutional and cultural change.

Why should businesses care about biodiversity?

Nature provides critical resources and services that businesses need to function and thrive. Biodiversity provides us with food, medicine, raw materials, energy, and clean soil and water.



Increasingly, governments and regulating agencies are implementing environmental targets and restrictions that the private sector must adhere to. **Businesses must determine how to meet these standards in a cost- effective way.**

To operationalize an ROI approach in conservation decision-making, we urgently need a framework to clarify and identify data needs and analytical approaches.

We propose:

Develop a spatially explicit decision support framework

Develop an approach to estimating costs and benefits of actions

Collaborate with CBO partners to pilot our approach and data tool

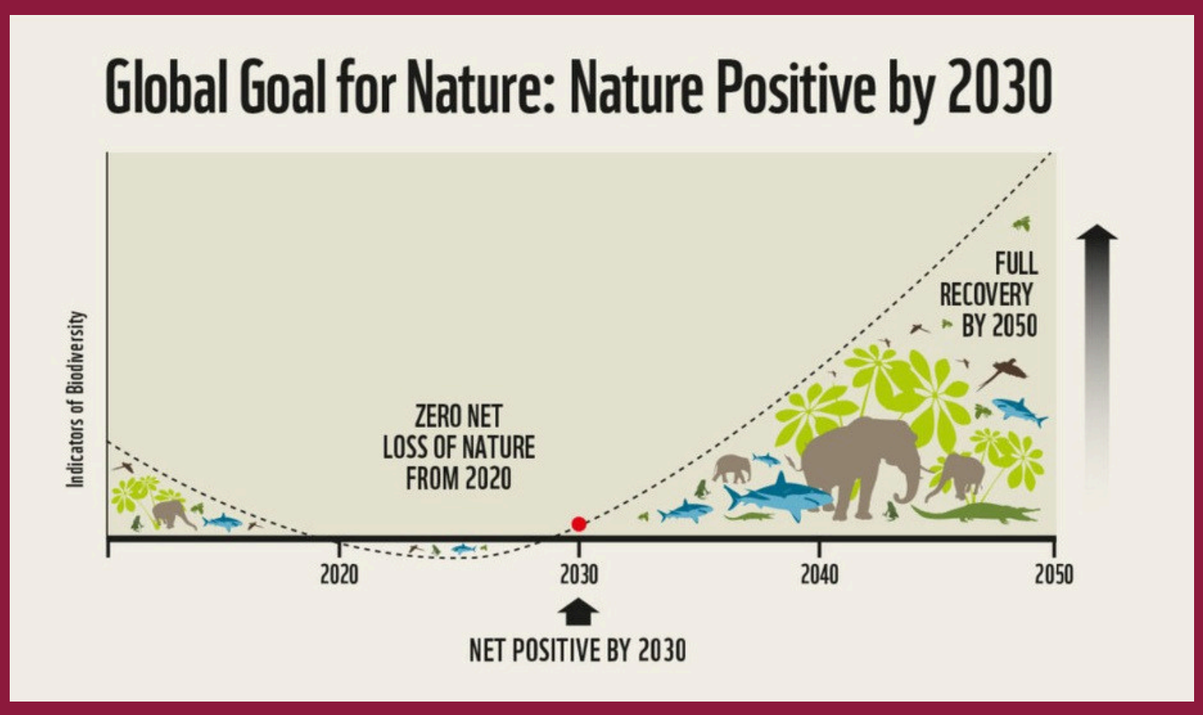
1. **Develop a spatially explicit decision-support framework**
   We have developed a general framework that can be used to determine the biodiversity returns achieved by investment into alternative interventions.

2. **Develop an approach to estimating costs and benefits of actions**
   We have developed a strategic approach to compiling and querying available conservation cost data from the scientific and grey literature.

3. **Collaborate with CBO partners to pilot our approach and data tool**
   We are developing strategies to support individual organizations in improving their capacity to test the benefit of theory-based decision support approaches.

Anticipated Impact

We seek to collaborate with companies to understand the decision context and identify ranges of actions to mitigate biodiversity loss. Our methods allow explicit calculations for measuring the impact of alternative intervention. In the business context, interventions may include operations or actions to mitigate impact. For the public sector, our work provides local decision-makers with a mechanism to report progress toward the UN Global Biodiversity Framework goals. Our fundamental research provides an entity with a “gold standard” scientific approach to measure, monitor and report on actions to improve biodiversity outcomes.



Projects we’ve pursued

We are currently working with local Arizona utility company Salt River Project to begin developing the framework and tools for measuring, monitoring, and verifying biodiversity impacts.

We recently worked with Conservation International Peru on a USAID-funded project to develop ROI models to inform investment into green economic growth initiatives and agroforestry development.

We are interested in partnering directly with the private sector to develop, refine, and apply our approach across sectors. We previously worked with Bayer the Electric Power Research Institute on related work.