

Finance

Solutions for sustainable investment and exploring natural capital



InVEST Toolbox

These tools offer models that quantify and value the benefits nature provides to human society



The Impact

Ecosystems and natural capital need to be properly managed in order to provide for humanity in a variety of ways, like the production of goods, water purification, recreation, and conservation for future generations. The InVEST (Integrated Valuation of Ecosystem Services and Tradeoffs) tools allow corporations and governments alike to evaluate economic tradeoffs in natural capital management choices.

Description

The Natural Capital Project at Stanford University is a research project that aims to insert the value of nature into all major decisions being made by motivating targeted natural capital investments. It partners with the Chinese Academy of Sciences, University of Minnesota, Stockholm Resilience Center, The Nature Conservancy and World Wildlife Fund. The project views ecosystems as capital assets that are often only valued when they are lost. The project works to develop nature-based solutions using the InVEST tools to engage decision makers in the importance of natural capital.

The tools themselves are free models that use maps as information sources and output maps as well. The results are returned in either biophysical terms (like tons of carbon sequestered) or economic terms (net value of sequestered carbon) which uniquely put a price on services we take for granted. The models include carbon, coastal vulnerability, crop production, fisheries, habitat quality, offshore wind energy, recreation, reservoir hydropower production, sediment retention, urban flood risk mitigation, water purification, wave energy, coastal blue carbon, crop pollination, habitat risk assessment, marine fish aquaculture, scenic quality and urban cooling.

Where It's Been Implemented

The Natural Capital Project is currently working with the Bay Area Regional Council, San Mateo County and the Bay Area Conservation and Development Commission to balance research and stakeholder influence to improve coastal community resilience in the Bay Area.

Its previous projects have spanned five continents and several focus areas, ranging from blue carbon assessments in Colombia to watershed funds in Kenya to nature-based urban planning in China. Stakeholders have learned to use InVEST to assess the value of their ecosystems and incorporate findings into concrete policies and management plans.

Key Drivers

Many conservation and sustainability movements are overshadowed by a narrow focus on the economy. The natural capital framework offers an approach to give value to essential ecosystem services that we currently take for granted.

Key Factors for Success

Engagement and inclusion of many stakeholders is essential for a successful InVEST project. Reliable data is also important.

Key Obstacles

Using the models requires basic GIS skills. Sourcing and preprocessing data for the models can also be challenging as they often require highly specific formatting.

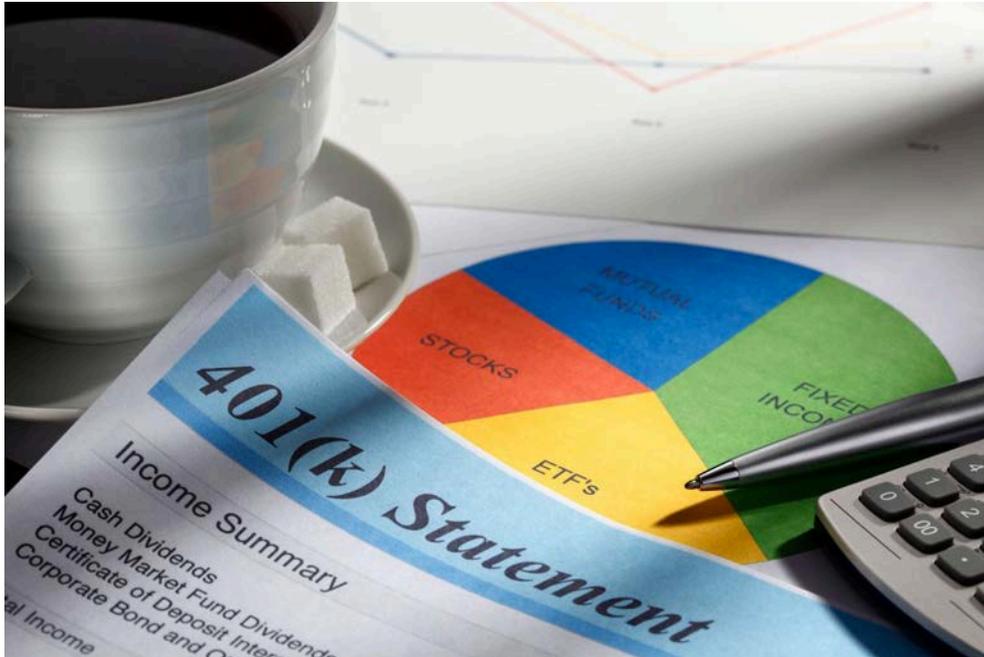
References and Resources

Natural Capital Project, Stanford University.

- [Natural Capital Project: Invest](#)
- Email: naturalcapitalproject@stanford.edu
- [Natural Capital Project: Online forum](#)

Sustainable 401(k) Investments for Employees

Workers may appreciate retirement investment plans that eliminate environmentally and socially harmful funds from investment options.



The Impact

By making retirement plan options more sustainable, employers ensure that this often-overlooked part of their operations is brought in-line with the rest of their sustainability objectives. Doing so may also increase employee engagement. A Povaddo survey of Fortune 1000 companies in 2017 found that 74 percent of employees felt it was important that their employer provide socially responsible funds to invest in. As harmful fossil fuel companies decline in profitability due to greater adoption of renewable energy, sustainable investing will likely become more financially sustainable, and better 401(k) investment options will yield higher returns for society as a whole.

Where It's Been Implemented

One example is Stok, a commercial real estate firm in San Francisco that prioritizes sustainability. Stok worked with HIP Investor, an organization that rates the social and environmental impact of various stocks, bonds and mutual funds, to find fossil-free options at

every level of risk tolerance. As a result, 401(k) participation rates at Stok increased from 14 percent to 100 percent.

Description

Sustainable, responsible and impact investing (SRI) is an investment strategy that incorporates environmental, social and corporate governance (ESG) criteria, prioritizing long-term financial returns as well as positive social impact. As Americans had \$6.9 trillion invested in 401(k)s in 2021, employers have considerable financial influence through their 401(k) investment plans. To make investments more sustainable, employers should first gauge interest among employees for adding a sustainable investment option. This survey can help them understand what types of SRI funds to prioritize. Then, employers should work with their 401(k) consultant and/or plan administrator to build a portfolio. They may choose to screen out fossil fuel funds and/or diversify options with purposefully chosen SRI funds. Groups like HIP Investor, Fossil Free Funds and Green Century Funds offer guides and toolkits for sustainable investing. As You Sow's screening tools help employers find funds that are screened based on metrics such as gender equality, guns, deforestation and prisons.

Key Drivers

A considerable amount of money is needed to finance solutions to the global climate problems we face today. According to the World Economic Forum, the global community will need to invest a combined \$5.7 trillion per year in renewable energy, efficient buildings, sustainable transportation, agriculture and water-saving technologies to make a difference. Currently, only \$630 billion per year (6 percent of the target) is being invested. 401(k) plans can be leveraged to meet this demand.

The most popular SRI funds are fossil free. To date, more than 1,300 institutions have divested from fossil fuels, totaling a value of over \$14.58 trillion. A 2017 research report by Carbon Majors Database found that just 100 fossil fuel producers are responsible for approximately 71 percent of global carbon emissions. Shifting investments from drivers of the fossil fuel industry to those pursuing renewable energy can put financial and social pressure on the fossil fuel producers, helping phase out the use of fossil fuels. Proponents of the divestment movement have looked to how divestment helped end apartheid in South Africa. Not only is it important to limit or eliminate support for the fossil industry, but also renewable energy companies need increasing investments if our society is to make energy use sustainable.

SRI investments also increase employee engagement and are safer investments. In a 2017 survey, Morgan Stanley's Institute for Sustainable Investors found that 86 percent of Millennials are interested in sustainable investing or investing in companies or funds that aim to generate market-rate financial returns, while pursuing positive social and/or environmental impact. Employers with more sustainable investment options might also experience a competitive advantage in attracting new employees.

Key Factors for Success

Working with sustainable investment advisers and consulting fund analysis sites like Fossil Free Funds and HIP Investor is crucial to making informed and financially responsible decisions. As You Sow offers a handy “Invest Your Values” tool that helps you figure out which funds are aligned with your organization’s values.

Key Obstacles

Making a shift in 401(k) plans is more challenging for larger companies. Even with recent surges of interest these past years, just 2.9 percent of 401(k) plans have even a single fund dedicated to environmental, social and governance issues, according to a recent Plan Sponsor Council of America’s member survey. It is easier to gather support at smaller companies, as there are fewer moving pieces. Employees can engage their managers more effectively, and there are fewer steps to change investment options. At larger firms, decisions on changing investments must go through a chain of command and be approved by boards of directors, resulting in less flexibility and longer approval times. However, if this issue is raised enough, and sustainability fits within the company’s image and mission, it should be possible for all organizations to have sustainable options in their investment portfolios.

Timeline to Implementation

The process of divesting from environmentally harmful mutual funds and ETFs and investing in more sustainable ones will require minimal time and effort, thanks to existing tools and resources.

Resources and References

Paul Herman, CEO, HIP Investor, rpaulh@hipinvestor.com

[Guide to Fossil Fuel Free Investing](#)

[How to Get Socially Conscious Funds into Your 401\(k\)](#)

[Blog Post on Offering a Greener 401\(k\)](#)

[Human Impact + Profit Investing \(investment strategies and ratings\)](#)

[Fossil Free Action Toolkit](#)

[Green Century Funds](#)

[As You Sow’s Screening Tools](#)

[SRI Resource Guide for Plan Sponsor](#)

[The New York Times: How to Get Socially Conscious Funds into Your 401\(k\)](#)