MODELING A PATH TO A SUSTAINABLE LANDSCAPE

CASE STUDY: HOW SCOPE CAN HELP FINANCIAL INSTITUTIONS BETTER TARGET IMPACT INVESTMENTS?
ABOUT THE PROJECT

The Modelling a Path to More Sustainable Landscapes project is a three-year effort to spatially analyze the baseline risk of commodity production and the role of sustainability policies to mitigate those risks. We completed year two in June 2022, and we look forward to applying SCOPE to oil palm and rubber in year three.

More information on the Modeling for Sustainable Landscapes can be found at: https://www.isealalliance.org/innovations-standards/innovations-projects/modelling-path-more-sustainable-landscapes.

Who is this document for?

This document is for people interested in increasing the value and integrity of data and in assessing the potential impacts of policy decisions in terms of agriculture production and environmental outcomes.

The project is led by the University of Minnesota and Bonsucro in partnership with the Global Platform for Sustainable Natural Rubber, Roundtable on Sustainable Natural Rubber, Roundtable on Sustainable Palm Oil, PepsiCo, Tetra Pak, and Diageo.

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CASE STUDY 2: HOW SCOPE CAN HELP FINANCIAL INSTITUTIONS BETTER TARGET IMPACT INVESTMENTS?

We partnered with Finance in Motion who is responsible for managing the eco.business Fund. The eco.business Fund is structured as a public-private partnership with the participation of public investors, multilateral organizations, development finance institutions, NGOs, foundations and private institutional investors. Their mission is to promote business and consumption practices that contribute to biodiversity conservation, to the sustainable use of natural resources and to mitigate climate change in Latin America and the Caribbean and potentially expanding to Africa. Finance in Motion is responsible for managing the investment of these funds to financial institutions whose investment portfolios include certified agribusinesses as well as those adopting recommended best management practices.

Specifically, our corporate and finance partners wanted to answer the following questions as applied to sugarcane production in Central America:

1. How can eco.business Fund use natural capital information on risk as an additional eligibility criterion?
2. Given certification is already an eligibility criterion, how can information on standards provide additionality?

Outcomes:
- Support a shift towards business practices
- Conserve biodiversity
- Use natural resources sustainably
- Mitigate and/or become more resilient to climate change

Qualified financial institutions (FIs) and businesses:
- Sustainable agriculture and agribusiness
- Sustainable fishery and aquaculture
- Sustainable forestry
- Sustainable tourism

Funding criteria for financial institutions:
- Either certified or adopting green practices

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We used SCOPE to measure risk in terms of impacts on yields and agriculture production, water use, water quality, greenhouse-gas emissions, land conversion and habitat. To the right, we can see where adoption of Bonsucro criteria would increase and decrease nutrient loading sugarcane production areas.

Overall, we found great opportunity to improve the sustainable management of sugarcane production areas through investing in moving producers towards Bonsucro compliance.

Adoption of Bonsucro would drive efficiency gains in over 62% of production areas across Central America and would dramatically improve current environmental performance for sugarcane production in Central America by:

- Increasing sugarcane production by 11%
- Reducing water use by 16%
- Reducing nutrient loading by 33%
- Reduce GHG emissions from cultivation by 30%
- Generate a near-zero conversion of natural forest and grassland ecosystems

Influence of adopting the Bonsucro production standard on nutrient loading. Top is business-as-usual and below is Bonsucro compliant production of sugarcane in Central America.
Through our analysis, Finance in Motion acknowledged the potential for this information to serve as a new ‘eligibility criteria’ for the eco.business Fund that would allow spatial targeting or pre-screening of funds to areas where the environmental risks are highest and the opportunity to maximize impact greatest.

Second, SCOPE information on the risk mitigation potential from adopting specific production standards could be used to communicate what and where specific standards and practices should be adopted to address the biggest risks.

Future next steps would include modeling of economic risks to compare environmental versus economic returns from investing in producer-level VSS compliance.

Example of scaled-down results for the potential change in nutrient loading from sugarcane production under Bonsucro for the Mesoamerican Reef region. Blue color gradient circles represent sugarcane mill locations and sugarcane demand. Highlighted in red color are key watersheds for conservation action.