

Eco-Tourism as Economic Growth and Indirect Finance for Environmental Conservation

Santiago Saavedra

Scientists for Nature Challenge

The Families for Nature Foundation-Lindau Nobel Laureate Meetings
August 27, 2025



Motivation

- ▶ Tropical deforestation emissions are larger than those of the entire European Union (Seymour and Busch, 2016).
- ▶ Tourism “exports” exceeds manufacturing exports for 40% of developing countries (Faber and Gauber, 2019)
- ▶ Can eco-tourism be scaled up to improve socio-economic and environmental indicators worldwide?

Treatment example



Sin reservas

Posada local en Pangul y recorridos por Termales y Anusí

4 días

★★★★★ 0

Tarifa dinámica \$ 1,084,000

Reservar



Sin reservas

Posadas locales en Termales y Pangul

4 días

★★★★★ 0

Tarifa dinámica \$ 811,000

Reservar



Reservado 1 vez

Ecologde, playas de Terco y Termales

3 días

★★★★★ 0

Tarifa dinámica \$ 906,000

Reservar



Reservado 2 veces

Ecocasas en playas de Terco y Terquito, vista a Termales y cascada del Amor

4 días

★★★★★ 0

Tarifa dinámica \$ 1,141,000

Reservar



Sin reservas

Inmersión gastronómica en Pangul y tour a Anusí y Termales

4 días

★★★★★ 0

Tarifa dinámica \$ 1,358,000

Reservar



Sin reservas

Visita al parque natural Utria, Termales, Anusí y experiencia gastronómica en Pangul

4 días

★★★★★ 0

Tarifa dinámica \$ 1,345,000

Reservar



Instagram

Iniciar sesión

Registrarte



byfieldtravel



Seguir

Mensaje



4285 publicaciones

738 mil seguidores

4898 seguidos

Christian Byfield Travel

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Bloguero(a)

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97 países

Colombiano

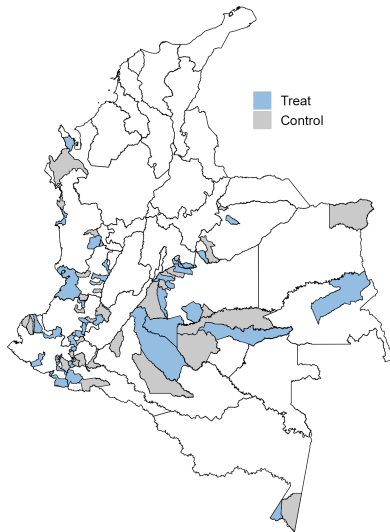
Mi libro 📖 🗣️

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Eco-tourism promotion RCT in Colombia

- ▶ Randomize Control Trial on eco-tourism promotion
 - ▶ Methodology based on Nobel's Banerjee, Duflo & Kremer (2019)
 - ▶ 76 municipalities paired by ecosystem and tourism development type
- ▶ Travel company:
 - ▶ Visit 38 municipalities (one randomly selected from each pair)
 - ▶ Promotion on eco-tourism from May 2019 to February 2020
 - ▶ Connects travelers directly with local hosts
- ▶ Estimate the effect on:
 - ▶ Deforestation using satellite data
 - ▶ Socio-economic indicators via survey

Experimental design: eco-tourism promotion treatment vs control

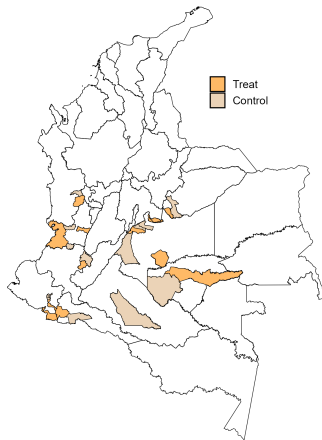


- ▶ Tourism development groups:
 - ▶ **Existing**: developed before intervention.
 - ▶ **Promising**: not developed before intervention, but know potential.
 - ▶ **Challenging**: not developed before intervention, unknown potential.

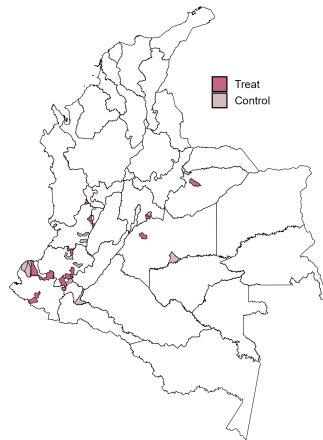
Tourism development groups



► Existing

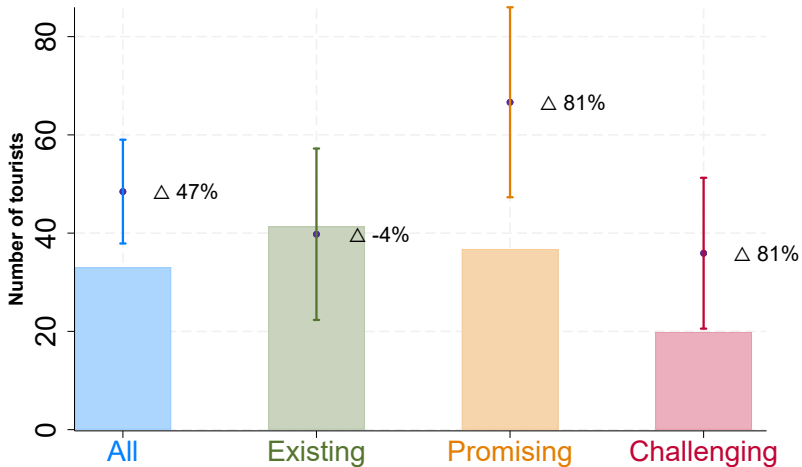


► Promising

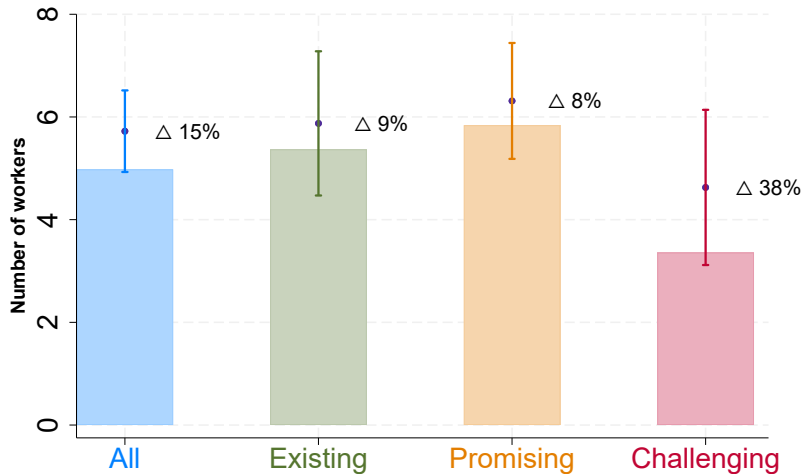


► Challenging

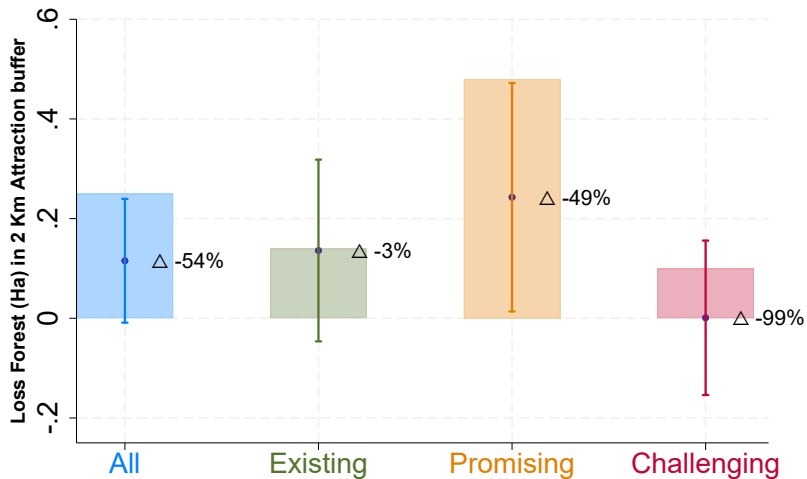
47% average increase in number of tourists (mainly local) per business



15% increase in number of workers



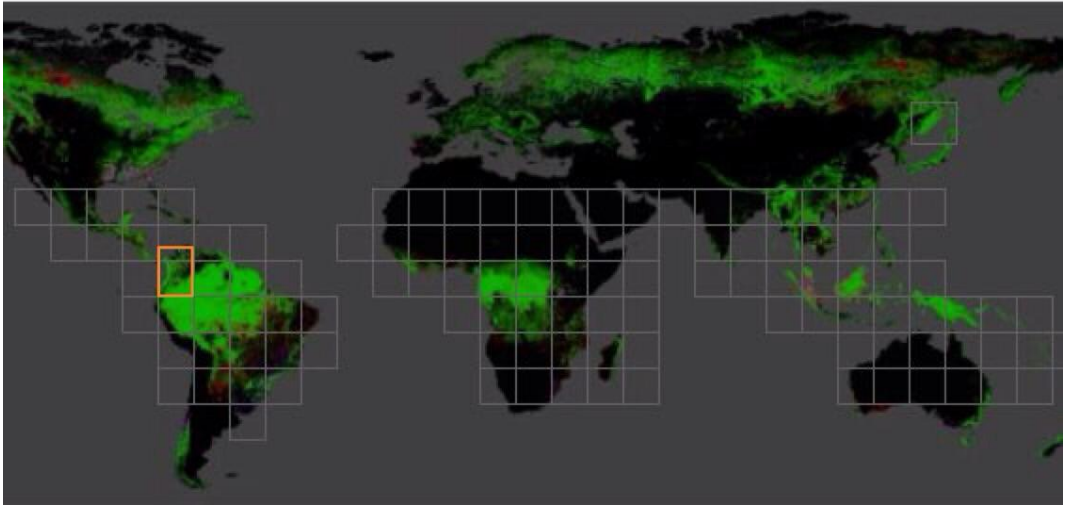
54% reduction in deforestation



Promoting eco-tourism is a cost-effective intervention

- ▶ Total eco-tourism promotion cost of 60,000 *USD* in 2019.
- ▶ Colombia's project resulted in a reduction of about 5-60 *ktCO₂*
 - ▶ 5*ktCO₂*: Buffers of 2 km around eco-tourism site
 - ▶ 60*ktCO₂*: But effects detected up to 7km
- ▶ The cost of reducing a metric ton of 1-12 *USD/tCO₂*
- ▶ Low cost compared to
 - ▶ Social cost of carbon of 185 *USD/tCO₂* (Rennert et al. 2022)
 - ▶ Current price of 81 *USD/tCO₂* European carbon market (Trading economics, 2025)

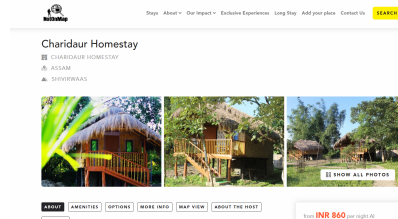
Proposal: Scale-up eco-tourism to new countries



Source: Source: GLAD - University of Maryland

Scale up

- ▶ India: NotOnMap and Mexico: Rutopía
- ▶ Find similar companies in Brazil, Indonesia or African countries



Starting from: \$3,474.47USD
per person

Unveiling Chiapas and Beyond: A 16-Day Exploration

Discover the rich culture, stunning landscapes, and ancient wonders of Chiapas and beyond on a 16-day immersive adventure.

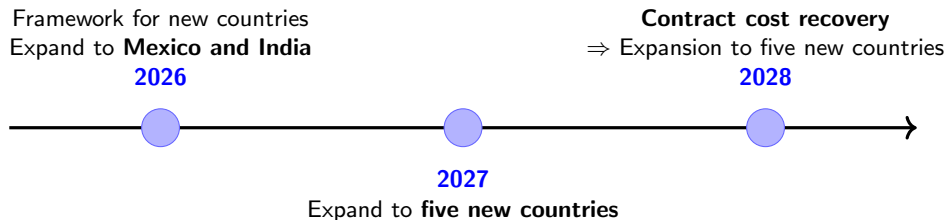


Starting from: \$1,958.30USD
per person

Chiapas Chronicles: From Canyons to Mayan Mysteries

Embark on an extraordinary journey through Chiapas, exploring breathtaking canyons, indigenous villages, stunning waterfalls, and ancient Mayan cities.

Timeline



- ▶ Eco-tourism promotion per country (38 sites): 75,000 *USD*
- ▶ Project management: 59,500 *USD* fixed yearly cost + 15,000 *USD* per country
- ▶ Research: 35,500 *USD* fixed yearly cost for deforestation monitoring (optional 250,000 *USD* survey cost per country)
- ▶ Framework for entering new countries: 25,000 *USD*

Conclusion

- ▶ Eco-tourism increased employment and reduced deforestation in Colombia.
 - ▶ With green jobs communities do not need to cut down forest.
- ▶ Eco-tourism promotion can be scaled up to other countries
- ▶ Steady tourism flow can be more financially sustainable than other funding sources

Thank you

- ▶ Gracias
- ▶ Danke
- ▶ Asante Sana
- ▶ Merci
- ▶ Obrigado
- ▶ Grazie

What is eco-tourism?

- ▶ Ecotourism refers to travel to ecologically significant, often fragile natural areas, with the purpose of supporting conservation and experiencing wildlife (OxfordEnglish Dictionary).
- ▶ Examples in this study are hiking trails, waterfalls, rivers, and lagoons.

Traveling Company "Awake"

- ▶ **Connects** travelers with over 370 local hosts in order to promote authentic and sustainable ecotourism.
- ▶ The company **promotes** eco-tourism through social media and its own web page. It also offers **virtual eco-tourism training**.
- ▶ It establishes concrete agreements with communities to **protect** biodiversity and **restore** natural ecosystems.

