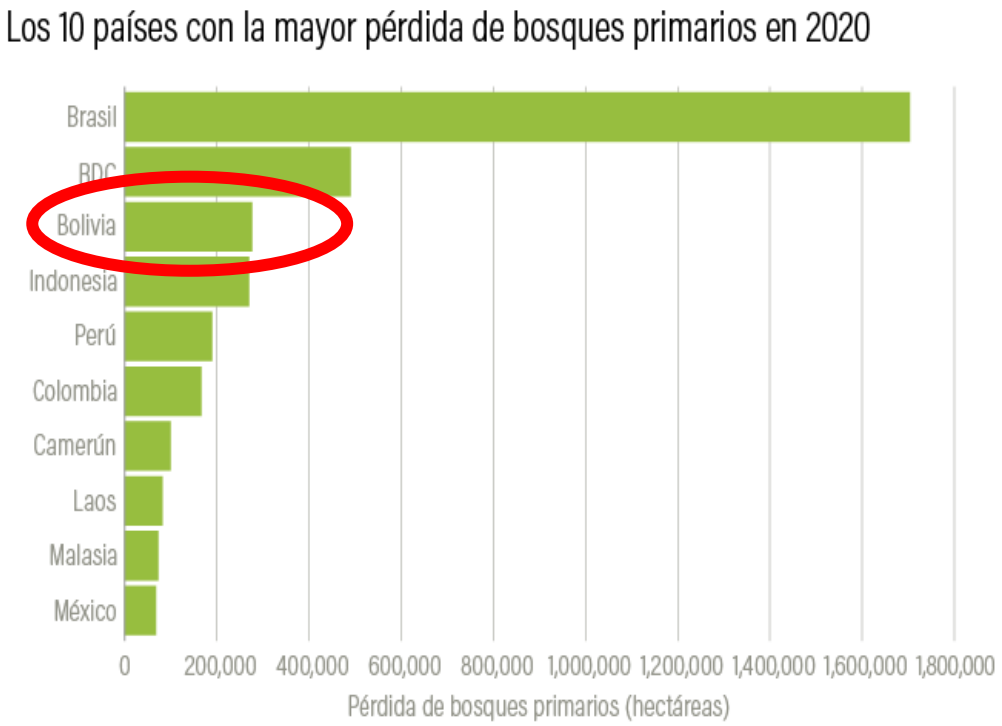
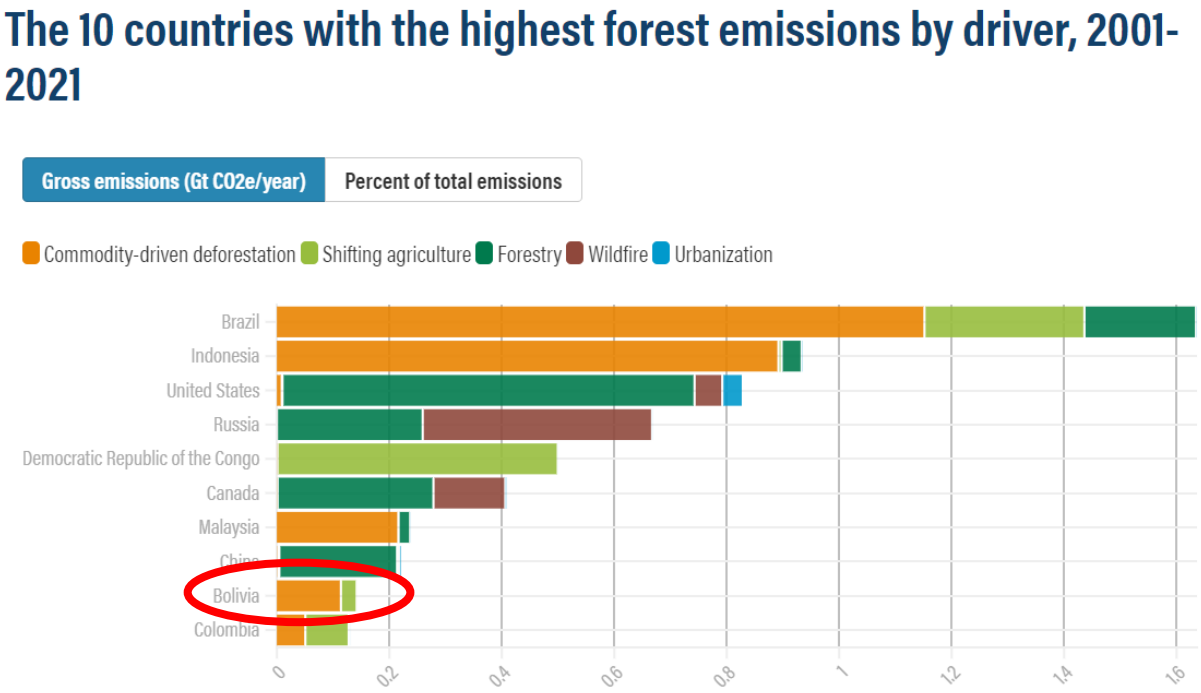
Ketrawe Foundation

HDS1 - Forest

Why Bolivia

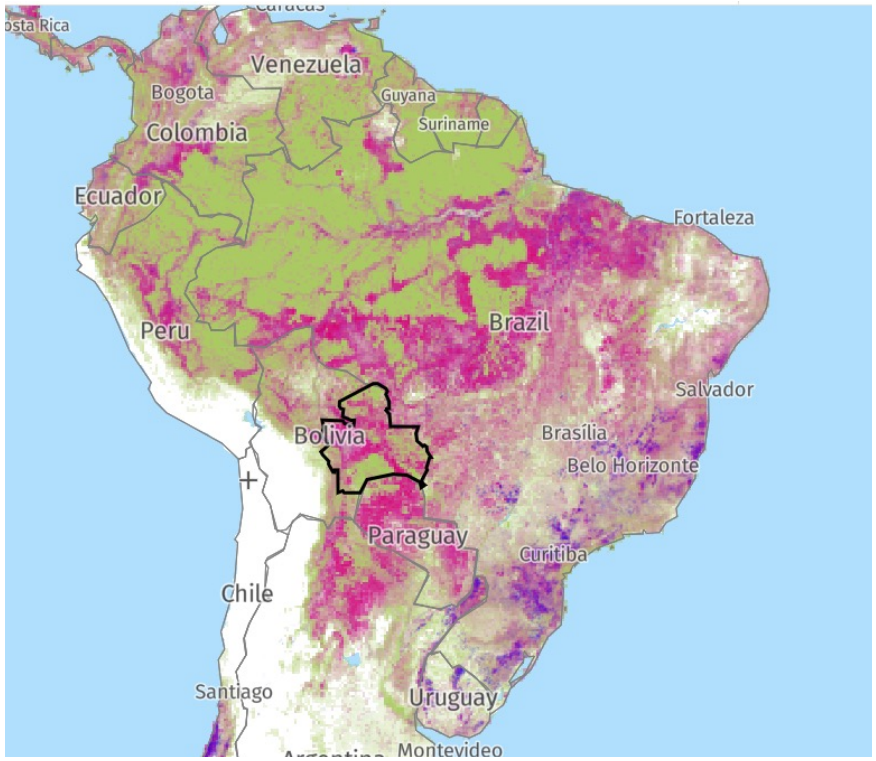




Bolivia is among the top 3 countries of forest los due to deforestation

[Greenhouse Gas Fluxes from Forests | Global Forest Review (wri.org)]

Why Santa Cruz de la Sierra (Bolivia)

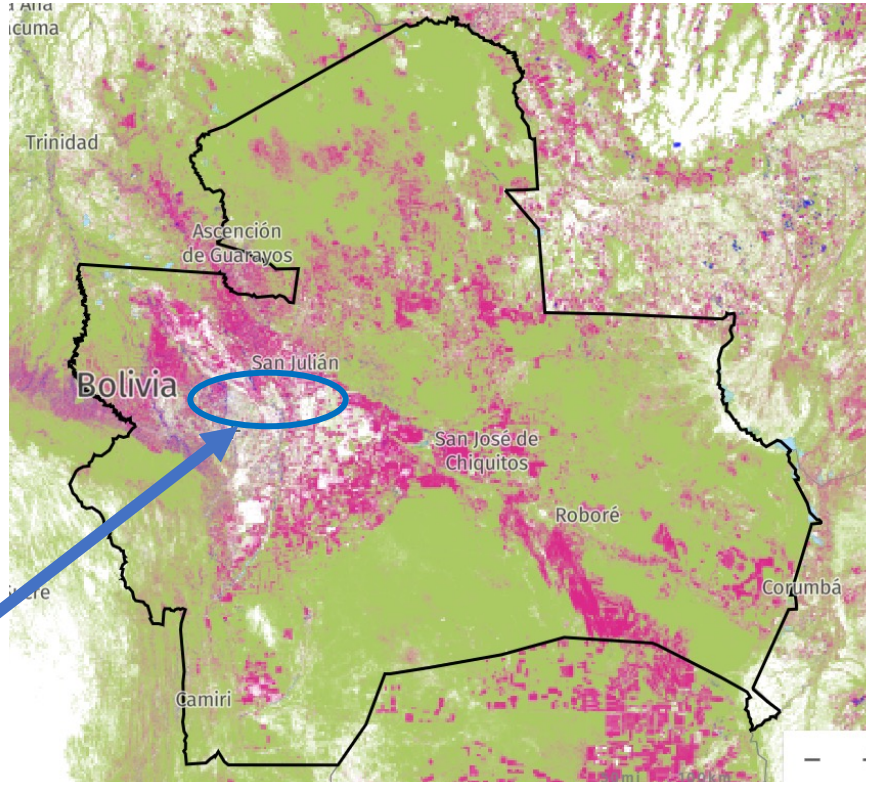


High deforestation: Purple areas
Loss of forest: White areas

Key Statistics:
2021: 427,000 hectares deforested
2001-2021: 2,000,000 hectares of primary forest lost, over 4,000,000 hectares of forest cover lost.

Impact:
Forests shifted from carbon sinks to carbon emitters.

That is why Ketrawe Works in these areas



Fuente: Santa Cruz, Bolivia Interactive Forest Map | GFW (globalforestwatch.org)

Deforestation in the area where we work

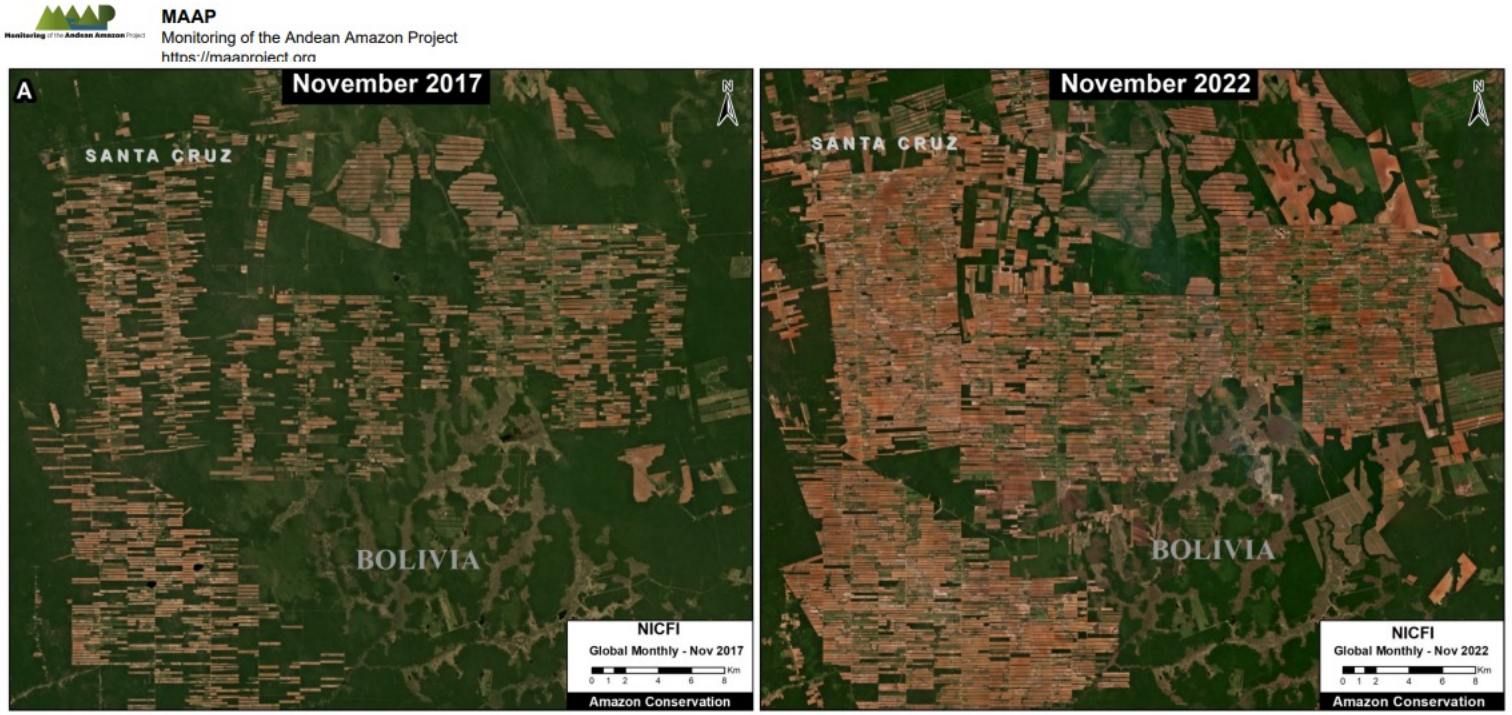


Figure 2. Soy deforestation in the Bolivian Amazon, 2017 vs 2021.

www.maaproject.org

What makes our reforestation model sustainable

Problem:

Farmer Perspectives on Forest Land

Farmers often view forests as liabilities that reduce available farmland and, consequently, profitability. This perspective can be summarized as:

Paradigm: "Forests only occupy space that could be used for crops to achieve greater profitability."

Equation: Forest = Economic Loss

Solution:

Shifting the Paradigm: Transforming Forests from Liabilities to Assets

Agroforestry redefines the farmer-forest relationship. By integrating trees into farming, farmers unlock economic and ecological benefits, increasing profitability and promoting sustainability. Forests become sources of diversified income, enhance soil health, and build resilience to climate change.

Redefined Equation: Forest = Increased Profitability + Sustainability

Solution

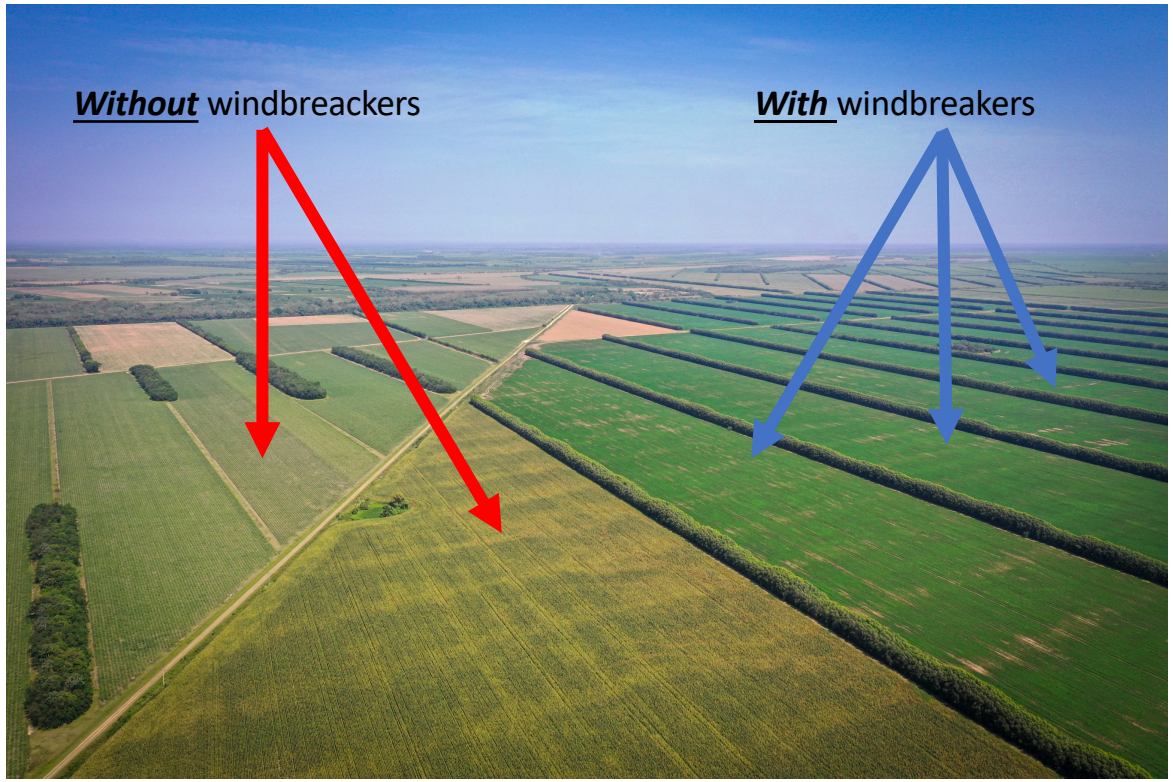
Eliminating the Paradigm
Our records and field experience demonstrate that forests, through the use of forest curtains and conservation of natural forests, produce the following benefits:

- Increased crop productivity per hectare
- Reduced need for chemical fertilizers
- Stabilization of water cycles
- Improved humidity conditions
- Minimized flood effects
- Prevention of wind erosion

Therefore:
Planting trees in agricultural fields increases on-farm productivity and minimizes agricultural risks.

Ketrawe en august 2023 – Wind Breaker
Chane – Santa Cruz

Windbreakers at work



Windbreaks weave magic into agricultural fields.

- **Soybean:** + 9% increase in yield.
- **Sugarcane:** +11% rise in productivity.
- **Maize:** +23% boost in harvest.

Windbreaks, mean synergy between nature and agriculture,

HDS1 Forest – Brief History (1)

Conservation of HDS1 Through Carbon Markets: Safeguarding a Bolivian Forest Ecosystem

Nestled within Bolivia's agricultural matrix lies HDS1 forest which has remained at least 30-years undisturbed, a critical reservoir of biodiversity facing pressure from expanding sugarcane cultivation.

Ecological Value:

This intact forest ecosystem supports a diverse assemblage of flora and fauna, including primate species, reptiles such as crocodiles and various snakes, avian populations, and vital pollinators like bees. The intricate ecological relationships within this forest contribute to its resilience and highlight its importance as a key component of regional biodiversity. Furthermore, the forest provides critical ecosystem services, including carbon sequestration, watershed protection, and soil stabilization, which are essential for mitigating climate change and ensuring environmental sustainability.

Threats to Forest Integrity:

The dominant land use in the region is sugarcane production, an economically important activity that drives deforestation. The subject forest is under imminent threat of conversion to agricultural land, jeopardizing its biodiversity and the ecosystem services it provides. This land-use change would result in habitat loss, fragmentation of wildlife populations, and a reduction in carbon storage capacity.

HDS1 Forest – Brief History (2)

Carbon Credit Opportunity:

The preservation of this forest represents a significant opportunity to leverage carbon markets as a conservation mechanism. By quantifying and verifying the carbon stored within the forest, carbon credits can be generated and sold to individuals or entities seeking to offset their greenhouse gas emissions. This mechanism provides a financial incentive for landowners to maintain forest cover, effectively aligning economic interests with conservation goals.

Benefits of Carbon Credit Implementation:

Direct Conservation: Revenue generated from carbon credit sales can be reinvested in forest protection and management activities, ensuring the long-term viability of this valuable ecosystem.

Sustainable Land Management: Carbon credit programs promote sustainable land-use practices that benefit both the environment and local communities.

Climate Change Mitigation: Preserving this forest contributes to global efforts to reduce greenhouse gas emissions and combat climate change.

Conclusion:

The implementation of a carbon credit project for this Bolivian forest offers a compelling solution to address the threats it faces. By recognizing the economic value of its carbon sequestration capacity, this approach can effectively incentivize conservation and ensure the long-term protection of this vital ecosystem.