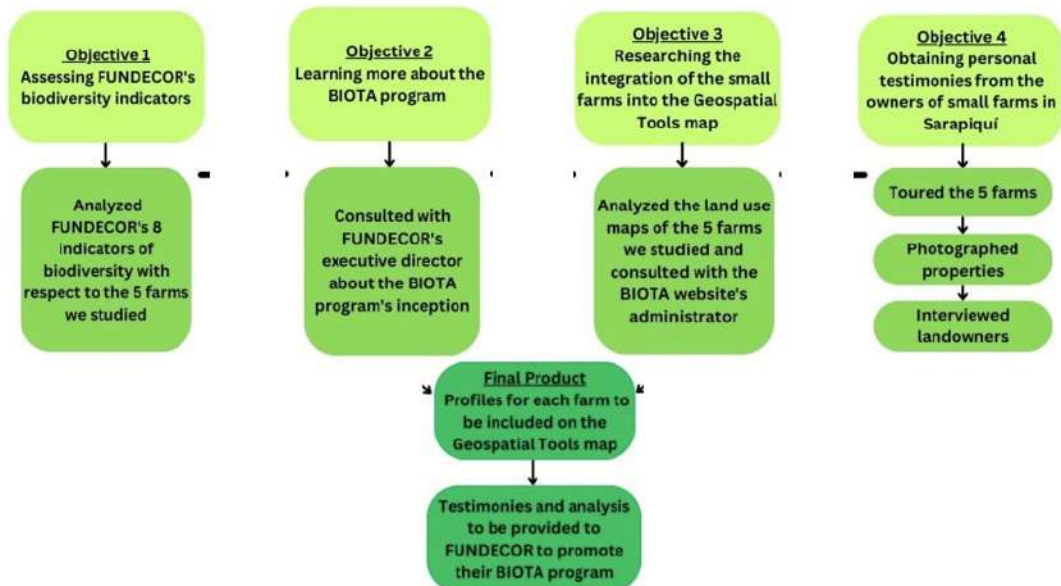




WPI FUNDECOR IQP: Final Presentation

Melina Iannacchione, Cameron Robbins, Brianna Romero, Liv Santurri

FUNDECOR: Visualizing Reforestation - Methods Flowchart



FUNDECOR'S BIOTA program utilizes 8 Indicators to assess biodiversity



Essential Areas for Biodiversity Support



Biological Corridors



Conservation Gaps
(Importance for Conservation)



Prediction of the loss of tree cover in the period 2021-2025



Wildlife Protected Areas



Very Low Social Development Index



National Registry of Wetlands



Water Priority

The BIOTA program aims to increase funding for landowners, but new ways to invest are needed



\$65



\$1600

Each small farm in the Sarapiquí region plays a unique role in Costa Rica's national conservation efforts



MON	TUE	WED	THU	FRI
Elcincio Flores Porras	Ingrid Mabel Quirós Vargas	David Reuland	Pedro Garcia Rueda	Isaias Arguedas Arce

Elicinio Flores Porras's land is primarily focused on forest conservation

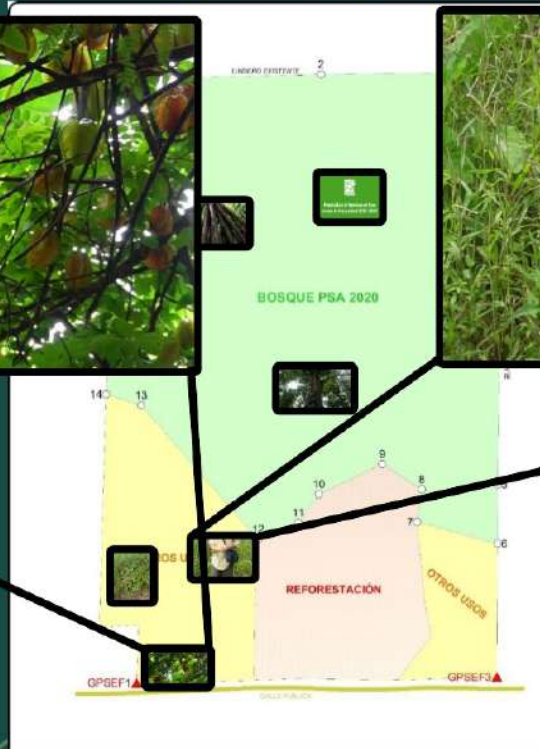


Elicinio Flores Porras's land is primarily focused on forest conservation

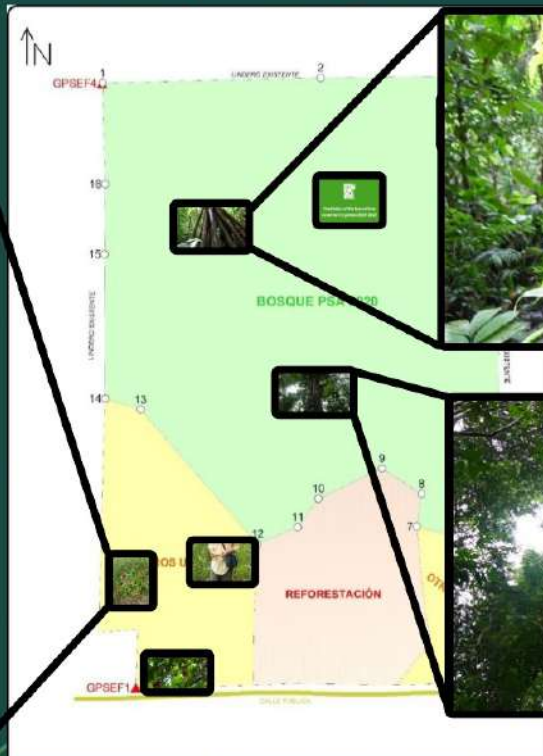



Prediction of the loss of tree cover in the period 2021-2025

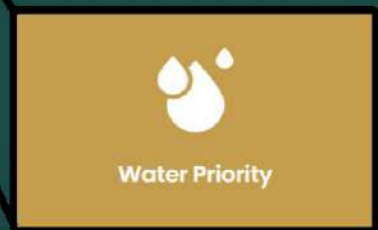
Elicinio Flores Porras's land is primarily focused on forest conservation



Elicinio Flores Porras's land is primarily focused on forest conservation



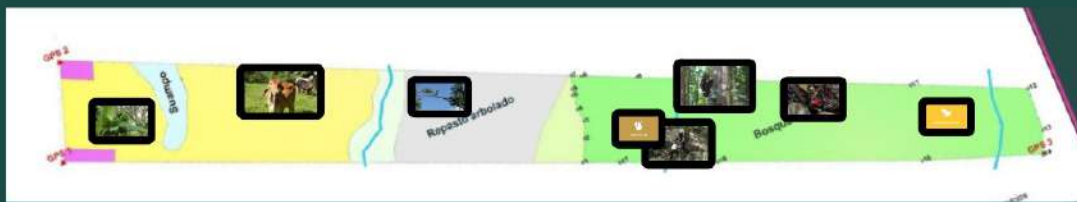
Elicinio Flores Porras's land is primarily focused on forest conservation



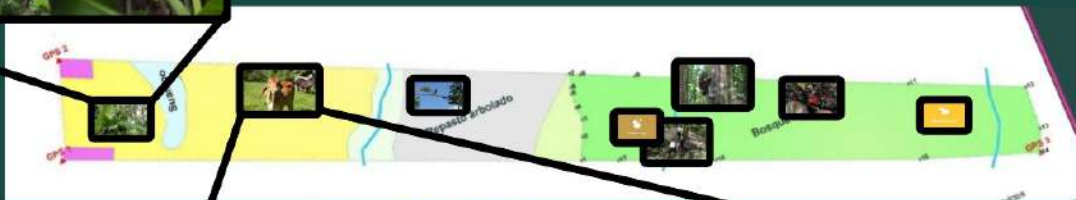
Elicinio Flores Porras's land is primarily focused on forest conservation



Ingrid Mabel Quirós Vargas's property features a diversified land use pattern



Ingrid Mabel Quirós Vargas's property features a diversified land use pattern



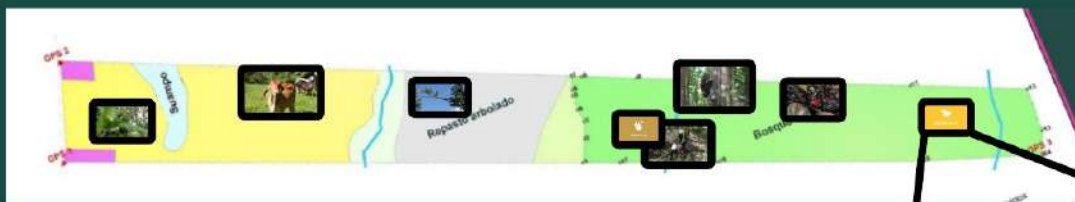
Ingrid Mabel Quirós Vargas's property features a diversified land use pattern



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David Reuland's Finca Oasis consists of regenerated rainforest



David Reuland's Finca Oasis consists of regenerated rainforest



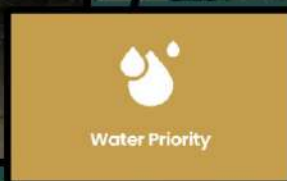
David Reuland's Finca Oasis consists of regenerated rainforest



David Reuland's Finca Oasis consists of regenerated rainforest



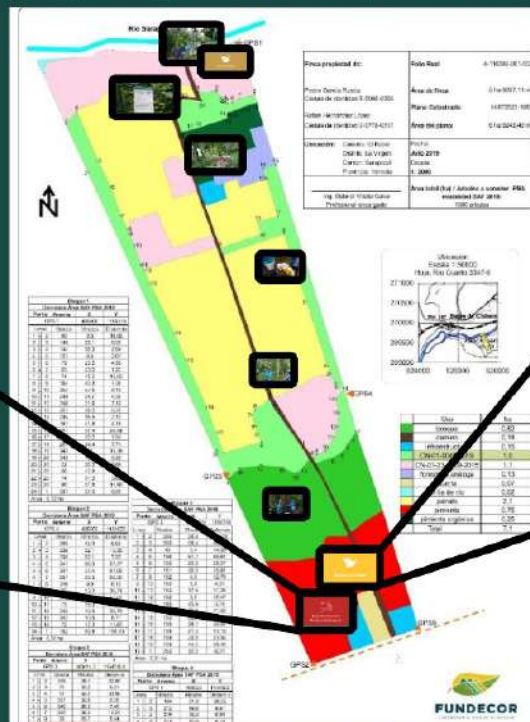
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David Reuland's Finca Oasis consists of regenerated rainforest



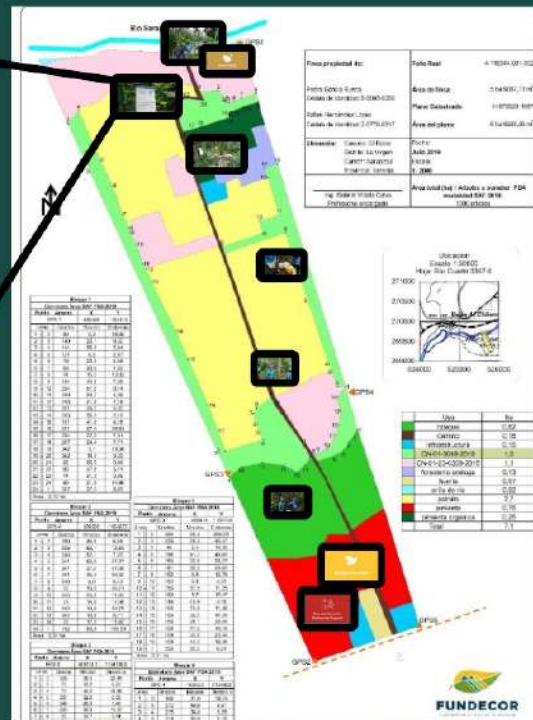
Pedro Garcia Rueda's property integrates forest preservation with agricultural activities




Essential Areas for Biodiversity Support


Biological Corridors

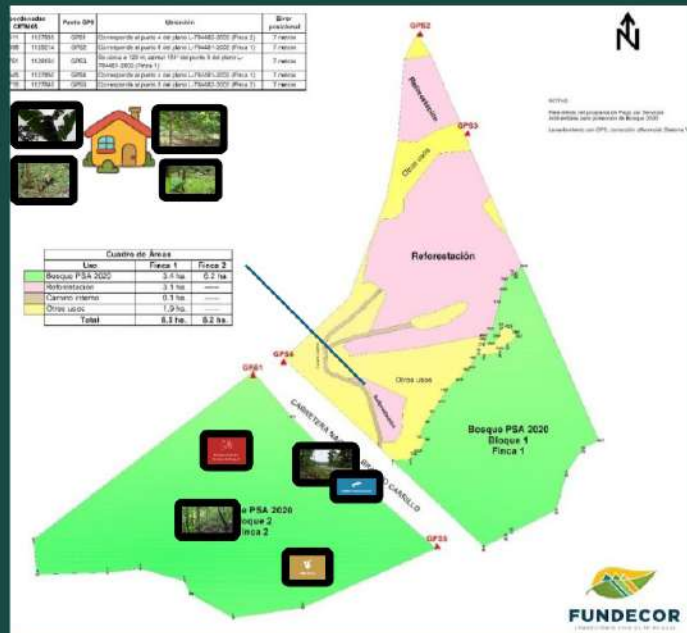
Pedro Garcia Rueda's property integrates forest preservation with agricultural activities



Pedro Garcia Rueda's property integrates forest preservation with agricultural activities



Isaias Arguedas Arce's property is dedicated to forest conservation



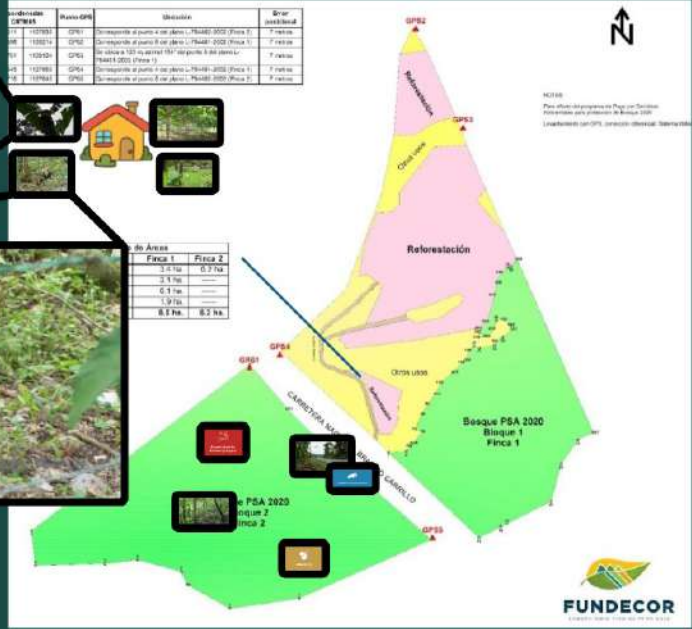
Isaias Arguedas Arce's property is dedicated to forest conservation



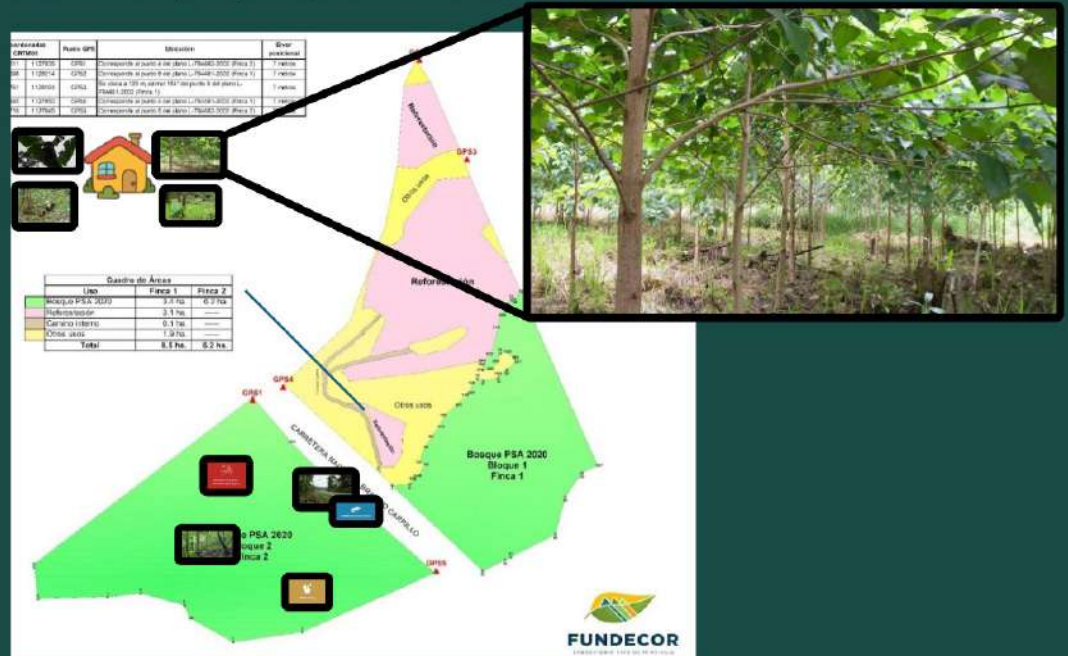
Indicador	Unidad	Descripción	Valor
1	km²	Superficie de parcelas en el plano - PSA 2020 Finca 1	7 hectáreas
2	km²	Superficie de parcelas en el plano - PSA 2020 Finca 2	7 hectáreas
3	km²	Superficie de parcelas en el plano - PSA 2020 Finca 1	7 hectáreas
4	km²	Superficie de parcelas en el plano - PSA 2020 Finca 2	7 hectáreas



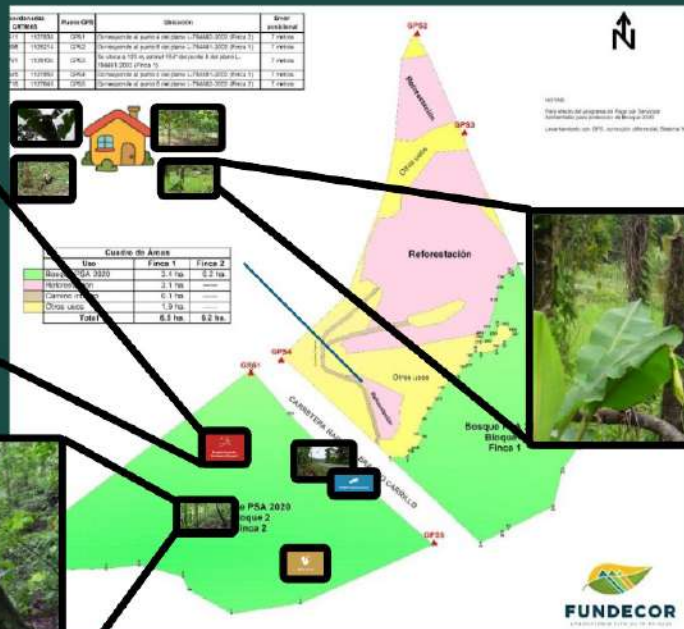
Finca	Superficie
Finca 1	14.7 ha
Finca 2	14.7 ha
Total	29.4 ha



Isaias Arguedas Arce's property is dedicated to forest conservation



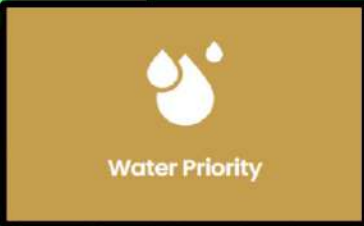
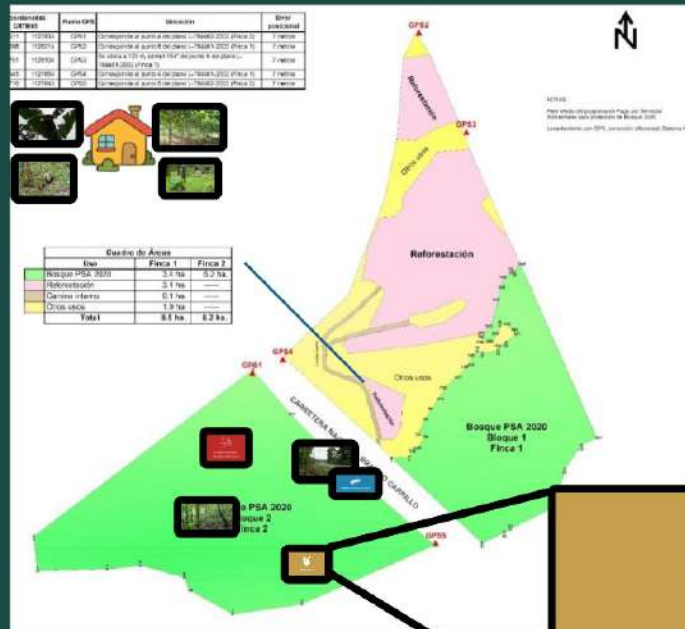
Isaias Arguedas Arce's property is dedicated to forest conservation




Essential Areas for Biodiversity Support



Isaias Arguedas Arce's property is dedicated to forest conservation



Isaias Arguedas Arce's property is dedicated to forest conservation





Pedro García Rueda

Description Site Indicators Global Data

Description

Area: 5.9h

In the heart of the El Roble region, where the Sarapiquí river weaves its course, Pedro García Rueda is not just a farmer but a steward of nature. The story of Finca Integral Jicaró unfolds like a tapestry, intricately woven with indigenous wisdom and a deep-rooted connection to the land. In 2015, Rueda embarked on a journey with FUNDECOR, birthing a vision that harmonizes the forest and the fields. His 7.1-hectare haven, a bridge across the Sarapiquí, resonates with the pulse of nature. Descendant of indigenous heritage, Rueda's affinity for the forest extends beyond the ordinary – his intimate knowledge of plant life paints a canvas that blends cultivation and conservation. Rows of Porro trees stand sentinel, not just as guardians of the land but as partners in growth. Unlike vanilla vines in commercial landscapes, Rueda's vanilla finds sanctuary, climbing the trunks of Porro trees, shielded from the sun's harsh gaze. Amidst this



Map by Earth Community Map Contributors. Earth Data by Garmin, Esri, Mapbox, METI/NASA, USGS, US Census Bureau. Powered by Earth Engine.



Pedro García Rueda

Description Site Indicators Global Data

CHARACTERIZATION OF THE BIOTA



Biodiversity

Farm with 30% or more of its surface within the layer.



Biological Corridors

Farm with 30% or more of its area within the Biological Corridor.



Water Priority

Farm with 30% or more of its surface within a layer of water importance.



Map by Esri, Contributor: Mapbox, Contributors: Esri, TomTom, Garmin, Esri/Source: METI/NASA, USGS, US Census, Bing. Powered by Esri



Pedro García Rueda

Description Site Indicators Global Data

Global Forest Watch

UMD Tree Cover Loss

Tree Cover Gain

Carbon Removal



Tree cover loss

(annual, 30m, global, Hansen/UMD/Google/USGS/NASA)

Source: Hansen/UMD/Google/USGS/NASA, accessed through Global Forest Watch



Tree cover gain

(12 years, 30m, global, Hansen/UMD/Google/USGS/NASA)

Source: Hansen/UMD/Google/USGS/NASA, accessed through Global Forest Watch.

Carbon Removal



Map: Earth Community Maps Contributors: Esri, TomTom, Garmin, Foursquare, MET/NASA, USGS, US Coast Guard, Powered by Esri



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UMD Tree Cover Loss

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Carbon Removal



Maxar | Esri Community Maps Contributors, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS, US Census Bur... Powered by Esri



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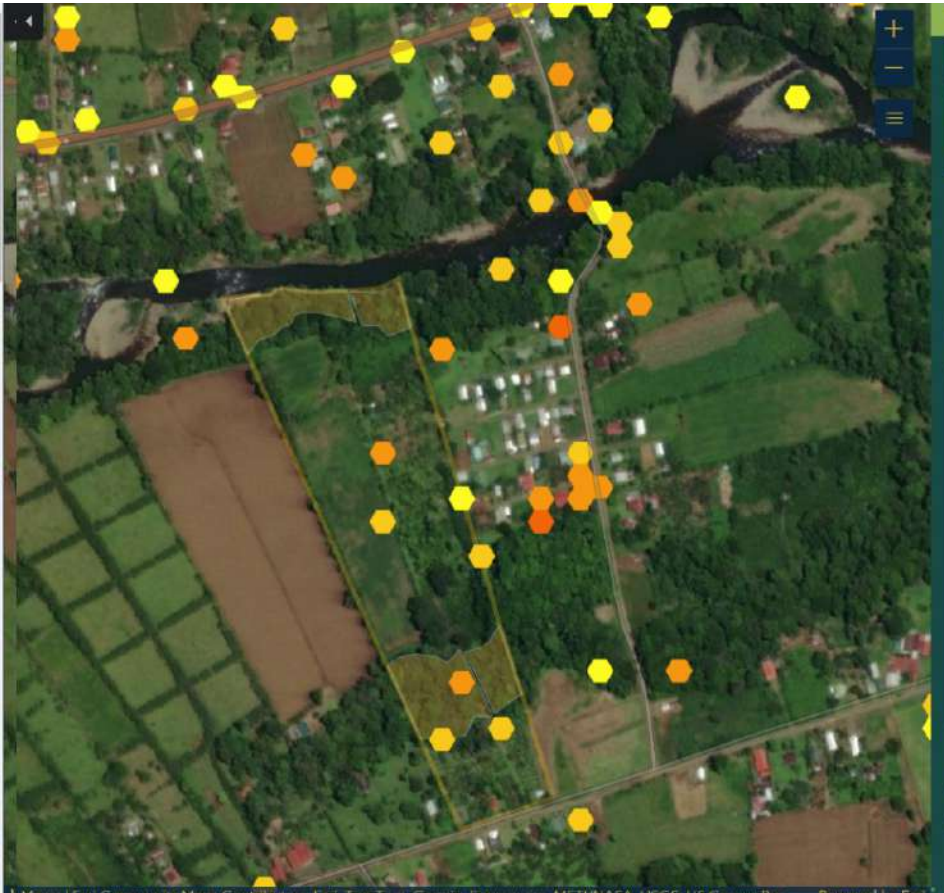


Tree cover gain

(12 years, 30m, global, Hansen/UMD/Google/USGS/NASA)

Source: Hansen/UMD/Google/USGS/NASA, accessed through Global Forest Watch.

Carbon Removal



We recommend that FUNDECOR...



Continue adding farm profiles to the BIOTA website



Expand the storytelling toolkit to include videos and social media campaigns



Establish mechanisms for receiving feedback



Monitor the impact of the profiles over time



¡Gracias!

Acknowledgements

FUNDECOR

- Cristian Zuñiga
- Mario Piedra
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- Alejandro Solís
- Jorge Rodriguez
- Carla Solís
- Randy Herrera

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- Holly Ault
- James Chiarelli

Landowners

- Elicinio Flores Porras
- Ingrid Mabel Quirós Vargas
- David Reuland
- Pedro Garcia Rueda
- Isaias Arguedas Arce