Baseline Land and Conservation Evaluation of the Amazon Rainforest in Colombia

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Introduction & Background

In 2022, USAID commissioned a feasibility assessment to determine whether an evaluation of Land for Prosperity's activities in Colombia is possible. Specifically in Southern Meta and the vicinity of the Chiribiqueta National Park, this area includes four national parks, one national reserve zone, and the surrounding Amazon Forest Reserve Zone.

After the evaluation was found to be feasible, Cloudburst Consulting Group was tasked by USAID with completing the LfP evaluation study. There were three main goals to this evaluation:
- Determine the extent to which the LfP program directly or indirectly increased sustainable land practices and improved livelihoods
- Assess changes in regional and local land governance within CNP and the buffer area
- Determine the impact of the program on deforestation, habitat connectivity, and biodiversity conservation
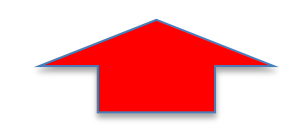
In the geographic region of Southern Meta and the CNP there are a number of drivers of deforestation including land grabbing, cattle ranching, licit and illicit crop cultivation, timber extraction, wildlife trafficking, gold mining, and others (Alboronz et al., 2022). Among these, a complex inter-linkage between cattle grazing, coca leaf production and land grabbing is driving a significant amount of forest clearing (Castro-Nunez et al. 2017). Protected areas are deforested and burned to promote grass for cows to graze. People are paid to log and raise cattle in these areas. Cattle ranching is appearing in areas where alternative livelihoods have failed. Reports indicate significant corruption in the paperwork to get cattle and timber into the legal supply chain and in the security forces (ICG, 2021).

The LfP program is seeking to understand the current situation around land and conservation of the Amazon Rainforest in Colombia. Using the baseline findings and recommendations from this evaluation LfP will be able to identify boundaries, build capacity, and socialize delineation.

Timeline

Oct 2022 – Oct 2023 → Design & Baseline
2026 → Endline
2030 → Follow-up

- **Design Report** outlining the proposed approach for the impact and performance evaluation
- **Baseline data collection and analysis**

- Complete **second round** of data collection
- Conduct **impact analysis**

- Complete **third round** of data collection
- Repeat **impact analysis**

Current Stage

Evaluation Questions

EQ1: What changes in (i) **land use and behaviors** driving deforestation and biodiversity loss and (ii) **participation in sustainable and improved livelihoods** occurred among households in the formalization pilot communities and Puerto Rico municipality following LfP's interventions?

EQ2: What changes occurred in regional and local **land governance, environmental governance**, and the reduction of **environmental crime and corruption** within the CNP and its buffer zones following LfP's interventions?
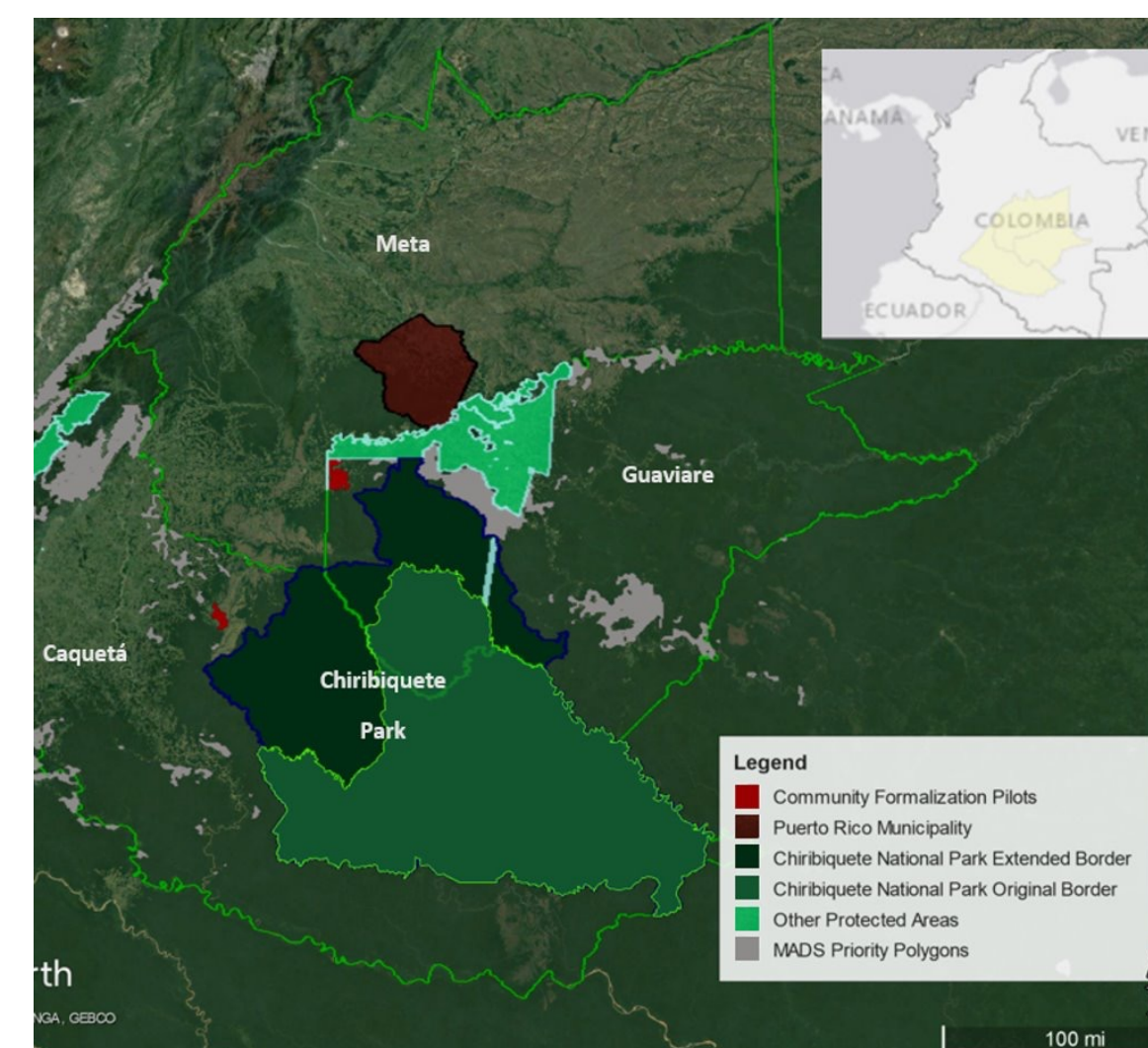
EQ3: What impact does the delineation and enforcement of the CNP border have on **deforestation, habitat connectivity, and biodiversity conservation** within CNP and its portion of the buffer zones?

Evaluation Methods & Area

The LfP study uses mixed-method evaluation with impact performance evaluation components. This included:
- Pre-post performance evaluation in LfP Southern Meta and the CNP treatment and comparison communities
- Geospatial impact evaluation of deforestation outcomes

The LfP study was comprised 4 main areas. Treatment and comparison areas of formal settlements, with 20 veredas in Puerto Rico the treatment area and 40 veredas in the comparison areas of Puerto Concordia, San Jose de Guaviare, and La Macarena. As well as treatment and comparison areas of informal settlements or polygons, with 24 polygons in San Jose de Guaviare and Caqueta, 2 initial treatment polygons and 22 comparison/expansion polygons.

Evaluation Data Sources

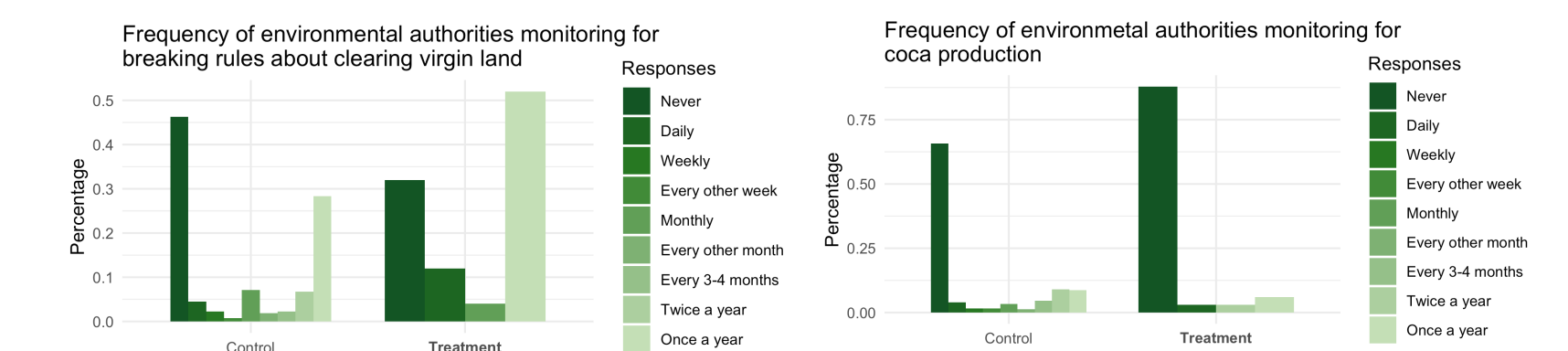In the LfP study there were four main evaluation data sources:
- Household Surveys (N = 2,024)
- Focus Group Discussions (N = 12) with men, women, and PPP participants
- Semi-Structured Interviews (N = 59) with community leaders in LfP intervention areas, local government officials, other community and municipality level stakeholders, LfP activity staff, and other land sector stakeholders
- Satellite Data

Polygon Household Data

One of my primary responsibilities during this research experience was formulating descriptive statistics for the polygon areas from the household surveys. As this was a baseline evaluation the treatment and control data was very similar. Nonetheless there were interesting and unexpected findings about land and conservation. Below are some of the statistics I found the most interesting.
- Water Conservation was listed as the number one benefit the forest provided to households; 50.00% of respondents in the treatment area and 45.43% of respondents of respondents in the comparison area
- Compared to 4 years ago respondents said that the condition of the forest was very similar with 48.48% in the treatment area and 48.04% in the comparison area

Additionally, comparing what environmental authorities valued as important as perceived by the population surveyed. One interesting comparison between virgin land and coca production is seen below.

Focus Group Discussion Data

Across the focus groups there were several interesting quotes, two of which I found particularly informative. The first puts into words some of the findings in the descriptive statistics and responds to a normative prompt about forest restrictions.

"Let's see, there is a need, this is an issue that is a bit complex because, logically there is a need to cut down, to try to plant, well, food, one thing or another, right? There have also been different interests, because let's not lie to ourselves, sometimes we have also cut down trees to plant coca, let's talk about it, it is not a secret, so in one way or another there has been a generalized issue and for one reason or another it has been carried out, this problem."

The second describes a issue repeatedly mentioned in discussions but missed in the descriptive and responds to a prompt about the drivers of deforestation.

"[The state of the forest has been] depleting because the truth is that the deterioration has come from the moment when these lands started to be colonized and from then on it started to decrease until what we see nowadays, that nowadays, the deer are very scarce, and that has not been only now, for a little while, no, it has been since when the lands were colonized."

Semi-Structured Interviews Data

What I found the most interesting about the semi-structured interviews was when respondents were asked about LfP specifically. Some noted the useful nature of the program in gathering data about use of the Forest Reserve Zone. Others noted that it was a program centered around reforestation but what they needed was technical assistance. Still others said they currently work or have worked in the past with USAID but had not heard of the LfP program.