

The Forest




CITY PARKING

EL AIRE QUE
RESPIRASTE HOY
ES MAS PURO
GRACIAS A
CITY PARKING.

El aire que respiras hoy es más puro gracias a City Parking. El aire que respiras hoy es más puro gracias a City Parking. El aire que respiras hoy es más puro gracias a City Parking.





Many industries—perhaps most—directly and indirectly emit greenhouse gases to the atmosphere and are in part responsible for climate change; the parking sector is not an exception. Just like all other businesses, Bogota, Colombia's City Parking consumes energy, fossil fuels, and water, and generates waste in its daily operations, consequently producing carbon dioxide (CO₂) that experts say contributes to global warming. The one big difference between other companies and City Parking is that this successful 66-facility parking organization decided to face its environmental responsibility in a very concrete manner, by protecting 17 acres of native forest in Puerto Gaitan, Meta, Colombia.

By Federico Lopez

for the **Trees**

Colombia's City Parking offsets its carbon footprint through an innovative forest adoption program.

Colombia's territory is about two times the size of France, and half of its 282 million acres are covered in native forests. That sounds great until you find out that every year, 800,000 acres of native forests are razed; that's about the size of Italy. Nonetheless, Colombia has a huge forestry potential—about 42 million acres are suitable for reforestation and only a small percentage of this area is being used today.

Bogota, Colombia has 8 million inhabitants and about 3,000 parking facilities. Two thousand parking facilities have been formally registered, and the other 1,000 are informal. There is low ownership concentration of these lots and structures—the market leader owns 130 facilities and the second-largest (City Parking) owns 66.

Parking facilities are highly regulated, so prices and charging methods are defined by the government. As an industry, parking (along with most businesses in the country) is not known as being very eco-friendly, which makes this story both all the more remarkable and important.

Inspiration

Eduardo Bayon, City Parking's CEO, had always wanted to go green with his company but had not found many options to do that. Being the environmentally-conscious person he is, he rode his folding bike to work on Bogota's 229-mile bike path system some time ago, and ran into an old friend. His friend told him about ways companies were calculating and offsetting their carbon footprints by planting trees. Bayon immediately decided that his company would join the reforestation program and began pushing to convert City Parking into a carbon neutral, environmentally-responsible business.

City Parking has already developed some green and social initiatives in Colombia; it is the only parking company in the country to offer free bicycle parking. The company also supports many local charities, and becoming a green leader in their industry was a realistic goal for them.

Making It Happen

The first step towards calculating any carbon footprint is



ISO 14064

The International Standards Organization (ISO) published ISO 14064 as part of a series of international standards for environmental management in 2006 and 2007.

ISO 14064-1 specifically outlines tools for governments, regions, and businesses to measure, quantify, and reduce greenhouse gas emissions. It includes requirements for reporting, verification, design, and management of greenhouse gas inventory, and provides project-level guidance for reducing, reporting, and quantifying measures taken to reduce greenhouse gas emissions. Additionally, it outlines requirements for projects designed to reduce or eliminate greenhouse gas emissions, along with steps to manage data quality.

The standards can be purchased at iso.org.

deciding which methodology should be used. City Parking decided to use the international ISO 14064-1 norm as base reference (see sidebar). This methodology was adapted and developed to calculate direct and indirect emissions associated to a parking company.

The second step is defining the project's scope. City Parking decided to include all of its parking lots and headquarters offices in the effort, and calculate its emissions on an annual basis.

The third step is gathering information. City Parking provided all its utility bills and records such as energy consumption (kwh), fossil fuels used (gallons), water consumption (gallons), waste generation (kgs), and recycling (kgs) to partner CO2CERO for analysis.

With this information and the greenhouse gas (GHG) emissions equivalences stated by the chosen methodology, it's possible to calculate the amount of CO2 generated in a year. There are six different types of GHG, but the result is always given in the most common one: CO2. This is why the unit used is tCO2e (CO2 tons equivalent). City Parking's annual carbon footprint was carefully calculated and the result was 518 tCO2e.

Some environmentally-responsible companies calculate their carbon footprint so they can take measures to minimize it and stop there. City Parking went one step further to complete the cycle, which includes finding a

way to offset what can't be reduced. They again partnered with CO2CERO, which owns 5,000 acres of land and has associates that own an additional 22,000 acres of suitable forestation land in Puerto Gaitan, Meta, Colombia. Most of this land was used by paramilitary and guerrilla groups to grow illegal crops about 10 years ago. Now, it is safe thanks to Canadian oil company Pacific Rubiales, which has forced the government to drastically increase military presence in the area.

The project's objective is to plant 247 acres per year until they reach 2,471 acres, so that in 2021, they can start harvesting 247 acres per year in a cyclical manner. The project portends to become the fifth largest forestry project in Colombia.

Fifty percent of this land will be used on commercial reforestation, and the other 50 percent will be used to protect and enlarge native forests. The project will produce approximately 200,000 cubic meters of hardwood, capture 200,000 tons of CO2, and generate approximately 500 legal rural jobs within the next 10 years.

Offsetting

For this final step, one needs to know how much CO2



is captured by a specific tree. Not all trees capture the same amount of CO₂—this varies greatly depending on the species and exactly where the tree in question was planted. Two hundred forty-seven acres of *Acacia Mangium* (the timber species we are currently planting), for example, captures about 200 tCO₂e in 10 years on a farm in Puerto Gaitan, Colombia. This same species and extension would not capture the same CO₂ in Bogota. In a similar manner, a pine doesn't capture as much CO₂ as a eucalyptus, and so on.

Knowing how much gas City Parking emits (518 tCO₂e) and how much CO₂ a native tree absorbs, it was possible to calculate how many trees were needed to mitigate such impact.

City Parking chose to offset its carbon footprint via native forest protection. This means that they pay money to keep a given area of a native forest just as it is. That forest area can't be used for agriculture, cattle, roads, construction, or any type of activity that might alter the ecosystem, and has to be protected from human intervention such as fire, hunting, fishing, etc.

There are approximately 3,000 native trees in the six acres adopted by City Parking. They regulate water resources, provide homes for wildlife, increase the biodiversity of the area, and will capture the equivalent amount of CO₂ emitted by City Parking in one year (518

tCO₂e). With that choice, City Parking became the first parking company in Colombia (and perhaps in the world) to offset its carbon footprint this way.

Benefits

Through its forest offset program, City Parking generates positive effects on both the environment and the community. Clearly, those are their main motivations for the program. That said, the company receives several business-boosting benefits as well:

- **Tax breaks.** Colombian tributary laws allow a 20 percent tax deduction to all reforestation-related investments.
- **Media Coverage.** Local and international organizations have shown what City Parking is doing, which spreads the word about their business and their facilities.
- **Image.** The company is slowly becoming the green leader in its sector.
- **Marketing.** The company and its facilities appeal to a growing green customer segment by sharing the message through social networks, their website, and corporate communications. They reached a 4,000-member community on Facebook, Twitter, and LinkedIn; all of those people may be motivated to use City Parking facilities just because the company plants trees.



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