
Idesam's Carbon Neutral Program integrates social technology and environmental impacts in the Amazon

Communities in the Uatumã RDS (AM) are leading the way in planting Agroforestry Systems with technical advice, combining income generation with forest conservation and climate change mitigation.

Combining the sustainability of traditional populations with the contribution of environmental services to the climate by generating a new economy in the Amazon is the pioneering proposal of the Carbon Neutral Program (PCN), an Idesam initiative that connects large urban centers to forests, allowing people, companies and initiatives to offset their environmental impacts.

The compensation is done by planting Agroforestry Systems (SAFs), led by riverside communities from the Uatumã Sustainable Development Reserve (RDS), with technical advice from Idesam.

The model developed meets an internal demand for income generation and quality of life for the communities, while also meeting a global need for solutions for the Amazon and for fighting climate change. The innovative arrangement, created in 2012, also provides for the recovery of degraded areas through sustainable practices, a methodology that has been recognized by various initiatives and is now part of the Banco do Brasil Foundation's (FBB) Social Technologies Bank.

With results achieved over than a decade, the PCN has already planted 50,000 trees, promoting the recovery of 30 hectares of forest, the equivalent of 10,000 tons of CO₂ neutralized.

The program taken into account the history of the local reality and the needs of the communities: the cultivation adopted in the plantations is based on a consortium between forest and fruit species such as açaí, cacao, pau rosa, breu branco, among others, helping to generate an alternative source of income and helping to guarantee food security for the families living in the reserve. Since 2010, the Carbon Neutral Program has had an impact on the lives of more than 40 riverside families.

There are ten participating communities in the three poles into which the RDS is divided: Santa Luzia, Livramento, Maracarana, Abacate, Caribi, Enseada, Jacarequara, Cesareia, Pedras and Amaro. The reserve has a total area of 424,430 hectares and includes 22 riverside communities located on the banks of the Uatumã River and its tributaries.

The Carbon Neutral Program contributes to mitigating the effects of climate change by sequestering carbon dioxide (CO₂) from the atmosphere, connecting the provision of environmental services by communities to companies and individuals that are willing to mitigate their impact on GHG emissions.

The experience of working directly with Amazonian communities has made it possible to create an agroforestry economy within the reserve with the construction of three community nurseries, one of which is dedicated to the management of pau rosa, a species considered endangered, according to the classification of the International Union for Conservation of Nature and Natural Resources - IUCN (2023). To carry out these activities, the community itself was trained to collect and store seeds in more than 150 hours of training.

The initiative's mission is also to make the participating families an example that the forest brings much greater economic and productive returns when conserved.

Traceability

The PCN guarantees the follow-up and monitoring of the inventoried SAFs in order to obtain the most accurate figure for the amount of carbon sequestered over time. In addition, after planting, it is possible to find out in which community(ies) in the Reserve the trees have been planted. The idesam website has a monitoring platform called "Planting Map", where partners can enter the code on their certificate.

Individuals, events and small and medium-sized companies from a wide range of sectors can contribute to the program by offsetting their emissions with Agroforestry Systems, or by transferring funds to plant trees without being linked to carbon offsetting. In this case, a planting certificate is issued with a traceability code. For those who offset, the PCN issues a carbon neutral seal and certificate in six offset categories: I Am, Event, Initiative, Company, Organization.

Idesam's planting project, as well as the methodology used, have a 100% guarantee seal from Idesam, which proves the neutralization of its partner, attesting to the commitment made between the parties.

For individuals, Idesam has a CO2 Calculator where people can estimate their annual CO2 emissions, a simplified and automatic version of the carbon footprint estimate, a way of engaging, raising awareness and encouraging civil society as a whole. For other organizations or private initiatives, the calculation of emissions and the number of trees that need to be planted is carried out using an inventory produced by the program's technical team, which uses the GHG Protocol tool adapted to the Brazilian context by the Brazilian GHG Protocol Program.

History

Originally, the families of the Uatumã RDS who are partners in the program used to clear areas for planting. Since 2010, the Carbon Neutral Program has become a benchmark for agroforestry cultivation as an alternative to deforestation. In addition, the economic benefits have been essential in changing the way local residents think about the Agroforestry System.

Among the difficulties overcome are the generation of seedlings themselves in order to guarantee the quality and sustainability of the program, the cultural acceptance of planting SAFs and the long-term results of environmental services from the standing forest. Now, more

and more families are interested in implementing the system, given the gains seen with these systems - such as the diversity of food produced and the recovery of degraded areas.

The workforce for the plantations is made up of community members, guided by Idesam's technical team, which also carries out the planting. This dynamic guarantees the strengthening of territorial governance, autonomy and community security.

The Carbon Neutral Program is a synthesis of Idesam's plans for the Amazon. It meets a productive demand for income generation and quality of life within the reserve. Based on the climate commitment, the PCN brings investments to the communities that promote a new economy, with a new form of production that is reconciled with nature, based on increasing income and improving the production process, reconciled with local knowledge.

PCN in Numbers (November 2023)	+60 individuals
tCO2e: +10k	+180 legal entities
Trees planted: +50k	
Partner families: +40	
Reforested area: +30ha	

Main species planted in the last year

Avocado (*Persea americana*)
Acai palm (*Euterpe oleracea*)
White Pitch (*Protium heptaphyllum*)
Cocoa (*Theobroma cacao*)
Brazil nut (*Bertholletia excelsa*)
Cumarú (*Dipteryx odorata*)
Cupuaçu (*Theobroma grandiflorum*)
Graviola (*Annona muricata*)
Patauá (*Oenocarpus bataua*)
Tucumã (*Astrocaryum aculeatum*)

Partners