



Reversing deforestation in Apuí

Engaging local farmers in
protecting the Amazon

Yearly Update 2021



Summary

2021 saw the start of our partnership with IDESAM and the Apuí Coffee AgroForestry Systems (AFS) initiative at PA Rio Juma in Apuí, one of Amazonas State's most deforested municipalities. Our goal is to restore 175 ha over the next five years.

Despite several challenges including an early rainy season that reduced access to some fields, preparation for planting was concluded between October and December 2021. At the time of writing, the planting of 58 310 coffee seedlings followed by 9555 seedlings of 10 native tree species as well as species of green manure, which helps soil fertility, had just been completed.

Socio-economic baseline information is being collected from the 22 participating farmers at the time of writing and will shed light on the project's impact, such as what their coffee income represents as a percentage of their household income.

COVID-19, while still present, was managed with safety protocols and did not affect planting activities. The number of vaccinated people is increasing, especially within PA Rio Juma. All the members of IDESAM's field staff are vaccinated as well.

This report shares an update of our progress during 2021. Thank you for all your support!

2021 in numbers

By the end of 2021:

22 farmers taking part in the establishment of **35 ha** of coffee agroforestry systems.

Each farmer devotes between **0.5 ha** and **2.5 ha** of their land.

24 990 coffee seedlings had been planted.

956 seedlings of 10 native and green manure species had been interspersed with the coffee.

By the end of the planting season (March 2022):

58 310 coffee seedlings planted.

9555 seedlings of native and green manure species planted.



Progress during 2021

The first farming families join the programme

The Apuí Coffee AgroForestry Systems (Apuí Coffee AFS) initiative was developed in 2012 by our partner IDESAM. Its approach – growing coffee in agroforestry systems – regenerates soil fertility, increases coffee production and reforests land. It also increases the coffee’s market value by providing technical support and capacity building to the participating farmers and has increased their annual income by 220%.

2021 was the first year of scaling up the Apuí Coffee AFS implementation with WeForest’s support. April to June saw us presenting the project to local farmers, aiming to enroll between 20 and 30 small farmers for this first year of planting.

The selection process is careful to ensure that small family properties benefit from the project and is selecting families who are new to agroforestry or those who are managing less than 2 hectares. IDESAM’s previous experience has shown that two hectares of agroforestry is optimal for a family to manage.

By July 2021, we had agreements set up and signed with 22 small farmers who between them will devote 35 ha – between 0.5 and 2.5 ha each – to coffee agroforestry.

Socioeconomic baseline information is being collected from the participating farmers to monitor the project’s impacts on household income over time.

A pioneering coffee

The coffee produced in IDESAM’s Apuí Coffee AFS initiative is Café Apuí Agroforestal, the first coffee in Amazonas State to be cultivated through agroforestry. Not only has it prevented cattle grazing from taking over the old coffee plantations, it has also doubled productivity in the region. When IDESAM launched the project, the production of farmers in the region yielded on average 8 bags per hectare. Now, the average harvest per producer is 15 bags, and can reach 25 per hectare.





Planting preparation and training completed

The first year of the project saw planning and operational activities take place from April to June, including arranging for the coffee and native species seedlings production, and buying lime and green manure for preparation and planting.

Owing to the frequent fires in the region, training our small farmers on the correct implementation and maintenance of agroforestry systems to prevent fires, as well as how to fight them if they do happen, is of vital importance. This training was provided in October by IDESAM, which regularly provides firefighting training and support to fire brigades.

From October to the end of the year, the farmers' lands were being prepared for the coffee agroforestry. Soil preparation included clearing away tree stumps and other large debris (below); harrowing (breaking up large clods and smoothing the soil), adding lime to balance the pH of

the soil (above), and fertilization. By the end of the year, preparation of 25 of the 35 had been completed, and the remaining 10 ha were prepared at the beginning of 2022 (8 ha in Apuí and 2 ha in Santo Antonio de Matupi).



The nursery at Porto Velho

The Amazon Nursery in Porto Velho – about 600km away, which can mean two days by road – produced all the coffee seedlings and most of the native tree species that were interspersed with the coffee in 2021. The green manure species, *Ingá* and *Pitanga*, were provided by the Apuí Municipal Environment Department and delivered to the project in November. In the future, we hope that the project will be able to set up its own nursery.

And planting begins!

100% of our 35 ha target reached

The target for this first planting season was 58 310 coffee seedlings (1666 per ha) and 9555 native trees (273 per ha).

In December, the planting of the coffee (*Coffea canephora*) seedlings began. These are placed first as they are sensitive and cannot be left for long without being planted once they've been removed from the nursery. Planting the coffee first also ensures that they have the best conditions. By the end of 2021, 10 of the farmers had completed 15 ha with 24 990 coffee seedlings.

After planting the coffee, native tree seedlings are planted alongside and interspersed with them. By the end of 2021, 3 farmers had planted 3.78 ha with 956 native seedlings. At the time of writing, the planting of all the remaining seedlings – 58 310 coffee seedlings and 9555 native and



The project in the news

Estadão, March 2020:

<https://www.estadao.com.br/infograficos/economia,cafe-sombreado-ajuda-a-recuperar-a-floresta,1114830>

Mongabay, February 2021:

<https://news.mongabay.com/2021/02/agroforestry-grown-coffee-gives-amazon-farmers-a-sustainable-alternative/>

GloboRural, April 2021:

<https://revistagloborural.globo.com/Um-So-Planeta/noticia/2021/04/producao-brasileira-de-cafe-vive-renascimento-sustentavel-na-amazonia.html>

Estadão, May 2021:

<https://pme.estadao.com.br/blogs/blog-do-empendedor/agricultura-regenerativa-e-foco-de-startup-que-lida-com-cafe-na-amazonia/>

Jota, August 2021:

<https://www.jota.info/coberturas-especiais/amazonia-desenvolvimento-sustentavel/servicos-ambientais-sao-oportunidade-para-estimular-mercado-que-protege-a-natureza-05082021>

Valor Economico, September 2021:

<https://valor.globo.com/patrocinado/projeto-especial-esg/noticia/2021/09/30/cafe-vira-arma-contr-a-desmatamento-na-amazonia.ghtml>

green manure species over the entire 35 ha – had just been concluded.

Green manure is an important part of organic agroforestry and is planted at the same time as the native seedlings, about three or four weeks after the coffee. The green manure plants – *Crotalaria spectabilis* and *Canavalia ensiformis* – are grown to improve the soil's quality, either through their biomass being used as mulch or by nitrogen-fixing so that chemical fertilizers do not have to be used.

Native tree seedlings planted	
açaí palm	<i>Euterpe oleracea</i>
crabwood	<i>Carapa guianensis</i>
cocoa (chocolate)	<i>Theobroma cacao</i>
<i>copaíba</i>	<i>Copaifera piresii</i>
West Indian locust (<i>jatoba</i>)	<i>Hymenaea courbaril</i>
mahogany	<i>Swietenia macrophylla</i>
<i>peroba</i>	<i>Aspidosperma macrocarpon</i>
spiked pepper	<i>Piper aduncum</i>
ice cream bean (<i>ingá</i>)	<i>Inga edulis</i>
pitanga	<i>Eugenia uniflora</i>
Green manure seedlings planted	
rattlepod	<i>Crotalaria spectabilis</i>
<i>feijão de porco</i>	<i>Canavalia ensiformis</i>

What's Next?

- Collect socio-economic baseline information from the first season's participating 22 farmers to monitor progress over time.
- Planning for 2022/2023: Complete the financial and logistical planning to engage more small farmers in planting the next 35 ha of agroforestry.

What is agroforestry?

Agroforestry combines agriculture and forestry; environmentally and socially-appropriate trees and shrubs are grown around or among crops or pastureland. It plays a critical role in successful forest restoration by:

- reducing the pressure on forest resources and incentivising sustainable forest management by alleviating poverty;
- compensating the loss of access to forest resources;
- ensuring reliable incomes to fund sustainable forest management.

IDESAM's work in Apuí started in 2012, with each producer receiving support to recover 1 hectare of coffee plantation in an agroforestry system, with native trees for shade including *jatoba* and mahogany, as well as species whose fruits and seeds could be collected and sold, such as cocoa, açai, Brazil nut, crabwood and *copaiba*. Regenerating coffee systems has doubled productivity in the region and enabled farmers to earn income from coffee and look to the future of essential oil production from native trees. Creating value in standing productive forests can prevent their degradation and destruction.

Please visit our **Why and How** webpage for more information.



Stay up-to-date with your interactive **Apuí map**, and check out the **photo album** of the project on Flickr.

Thank you for supporting the Reversing deforestation in Apuí project!