# Forests

# Bioeconomy

Opportunities to advance the climate agenda and socio-economic development

November, 2023

14



# Introduction

The issue of the bioeconomy has become increasingly prominent in international and national debates in several Latin American countries – linked to the climate emergency and the need to decarbonise the economy. There have been numerous commitments by countries and companies to strengthen the bioeconomy, as well as increase the allocation of financial resources to this agenda. However, there are still many doubts about how best to promote this agenda so that it can accelerate and become a significant climate change mitigation strategy.

The Partnerships for Forests (P4F) programme has been engaged with the bioeconomy in Brazil, Colombia, and Peru since 2018, with a portfolio of projects that have faced various challenges on their way to becoming viable commercial operations.

#### This document summarises the lessons learnt from this portfolio of real bioeconomy cases, providing answers to key questions: what are the most common barriers and needs? What kind of solutions were adopted and what were the results?

This collection of case studies acts as a jumping off point for innovative and practical support of emerging businesses to be created, replicated, and scaled up by funders and donors. Creating a more robust system for promoting sustainable rural entrepreneurship will help to more efficiently allocate capital to support innovative businesses – which in turns, can have a positive impact on tropical landscapes and local populations.



#### Bioeconomy

This document defines the concept of 'bioeconomy' as the production, processing and marketing of forestderived products that guarantee the standing forest or its restoration as well as the conservation of biodiversity and the knowledge of indigenous and traditional peoples<sup>1</sup>.

In this context, the bioeconomy also acts as leverage for the socio-environmental agenda, with the conservation and restoration of landscapes, the mitigation of climate change and the fight against social inequality as its goal. It is the forest that creates wealth, and that wealth protects the forest and its people.

# Tackling climate change and social inequalities

The bioeconomy can play a significant role in mitigating climate change by fostering sustainable practices in agriculture and forest management. The implementation of sustainable agricultural techniques enhances the resilience of production systems and increases carbon storage in the soil, resulting in reduced greenhouse gas emissions. Additionally, responsible forest management contributes to biodiversity preservation and promotes the stabilization of the global climate.

Promoting the bioeconomy is also crucial to tackling social inequalities in rural areas. The positive impact comes from the creation of jobs and income through the economic growth of a production chain, and from investments committed to social protocols in the implementation of projects.

Recent analysis suggests that the GDP of the bioeconomy in Brazil's Legal Amazon<sup>2</sup> could reach 38.5 billion Brazilian reais by 2050 (equivalent to 2.8% of regional GDP), employing up to 947,000 people (around 4% of all jobs in the region)<sup>3</sup>.

1. "Solutions for Sustainable Land Use in Latin America", Partnerships for Forests;

2. Brazil's Legal Amazon is defined by the Institute of Applied Economic Research (IPEA) as an area covering the entire states of Acre, Amapá, Amazonas, Mato Grosso, Pará, Rondônia, Roraima and Tocantins, as well as part of the state of Maranhão, totalling 5.0 million km<sup>2</sup>. Established in 1953, the concept defines the territorial limits of the region to plan its economic development. The boundaries of Brazil's Legal Amazon are therefore not limited to the boundaries of the forest ecosystem;

3. The "New Economy for the Brazilian Amazon" report, published by the World Resources Institute (WRI) in June 2023.

Photo: Hick Duarte



Photo: Fred Rahal

# Bioeconomy policies and programmes in Latin America

The current setting for the bioeconomy in Latin America is characterised by new public policies and programmes aimed at promoting the forest and sustainable land use sector and its positive socio-economic and environmental impacts. One example is the creation of the first **National Bioeconomy Secretariat** by the current Brazilian federal government, integrated into the Ministry of Environment and Climate Change. The secretariat will be responsible for drafting **Brazil's new national bioeconomy Policy, Plan, and Programme.** 

In Colombia, the current government is **prioritising green growth** – **including the bioeconomy** – at the heart of the transition to a decarbonised economy. This agenda has been championed by various ministries, including the environment, industry and trade, science and technology, at the National Planning Department (DNP).

Sub-national jurisdictions have also made moves on the issue. The **state of Pará** was the first to launch its **State Bioeconomy Plan (PlanBio)** in 2023. The inclusive plan was developed with the aim of promoting solutions to the state's major socio-environmental and economic challenges, promoting scientific research, strengthening, and innovating production chains, and creating a favourable environment for sustainable businesses related to the sector. The **state of Amazonas**, also in Brazil, has followed a similar path, mobilising government departments and civil society to develop its **bioeconomy policy**.

The state of Pará has also distinguished itself as the host of important events in the field of bioeconomy. For example, the state's capital, Belém, was the first city outside Finland to host the **World Bioeconomy Forum** in October 2021. In 2023, the same city will host the **Amazon Summit**, where the countries of the region will launch a new agenda for regional cooperation, including the issue of the bioeconomy. Belém has also been confirmed as the future host of the **30th United Nations Climate Change Conference**, COP30, to be held in 2025.

#### The work of P4F

Partnerships for Forests (P4F) is a UK Aid programme that supports forestry operations that have a positive impact on various tropical ecosystems around the world. In Latin America, the programme operates in Brazil, Colombia, and Peru, supporting partnerships between communities, the private and public sectors, and investors through more than 35 initiatives.

P4F's mission is to provide grants and technical support to businesses seeking to achieve maturity and commercial sustainability through financially viable models that generate positive impacts for forests and local communities. Investing in sustainable business that help protect and restore nature and mitigate climate change, with the private sector as a driving force, is the foundation of the P4F theory of change.

In 2023, the programme reached a major milestone: more than £1.2 billion (equivalent to 7.5 billion Brazilian reais) has been channelled by P4F into investments for forests and sustainable land use around the world. The programme's work in Latin America – a region that contains about 22% of the world's forest area – has mobilised more than 650 million Brazilian reais, equivalent to £103.2 million and brought more than 3.5 million hectares of forest under sustainable management.

#### **Forest Transition Curve**

The work of the programme is based on three different approaches that reflect the diversity of scenarios and stages of forest conservation. For projects in well-conserved landscapes, the approach is based on the attaching **value to standing forest** (1). In projects linked to landscapes where forest cover has already been converted to agricultural land, the programme's work is based on a **production and conservation** approach, promoting good agricultural practices (2). Where a landscape has been degraded through unsustainable practices, the programme is based on **restoration** measures (3).



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P4F intervention in LATAM

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ARUMAYU MARUMAYU MARUMAYU

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\*Four projects are not shown on the map above as they are not businesses but enabling environments.

#### Projects supported by P4F

The success of P4F's work with bioeconomy projects and companies in Latin America illustrates the economic, environmental, and social potential of the sector, as well as the possibilities of solving some of the dilemmas faced by forest economy stakeholders. The partnerships are based on different grant and technical assistance models, with the aim of initiatives being eventually able to scale and/or replicate their models.

Mondelēz,

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To Nature

The P4F projects and initiatives presented below are classified according to the Forest Transition Curve, in particular the cases of valorisation of standing forest and restoration. Each project is accompanied by a brief description, the challenges that led them to seek support from P4F, the intervention planned with the P4F team, and the results achieved through the support provided. Finally, the type of support provided by the programme is indicated, grouped into eight categories: (i) productive efficiency, (ii) business management, (iii) access to markets, (iv) access to suppliers, (v) access to capital, (vi) research and development, (vii) strengthened governance and (viii) added value to the product.

# Table summarising the type of support provided for each bioeconomy project

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		Production efficiency	Business management	Access to market	Access to suppliers	Access to capital	Research and development	Strengthened governance	Added value to the product
	Xingu Seeds Network								produce
	Coopavam								
HUCHAGPICO.	Naidiseros del Pacifico SAS								
Planeta	Planeta SAS								
VEJA S	Veja Shoes								
AMARUMAYU	Amarumayu								
	Making non-timber forest products viable								
	Baru export								
	Seed's Paths								
	Cocoa Agroforestry								
ecohome	Ecohome								
Secoflora	Ecoflora								
Form	Form International								
	Amapuri								
	Bioeconomy Priority Programme (PPBio)								
	Standing fore:	st	Restoration						

# Valorisation of the standing forest





### Xingu Seeds Network **P**Brazil

The Xingu Seeds Network (ARSX) is an association that brings together groups of indigenous seed collectors, including indigenous peoples, family farmers and urban farmers mainly from areas in the Amazon and Cerrado, to work on with forest restoration. ARSX is now the largest network of its kind in Brazil, with more than 600 collectors and 325 tonnes of seeds collected from 220 native species. The work responds to the growing demand for restoration, largely driven by the new Forest Code, and involves the Xavante people and five ethnic groups from the Xingu Indigenous Land.

# Challenges and intervention planning

As a philanthropic community initiative with the potential for commercial autonomy, ARSX's main challenge was to scale up an initiative that has historically been tied to donations. Although the network's business model as a community initiative has proven to be highly efficient and functional, it also has high operating costs, so seed sales do not cover production costs. This makes it difficult for the institution to achieve financial autonomy.

The support offered by the programme aimed to transform the association into a profitable, self-sustaining business capable of responding to market demand. Initially, a business plan was developed to improve operations, reduce costs, increase revenue, adjust the organisational and governance structure and cash flow projections, and identify risks. In the second phase, based on the strategies defined and the results achieved in the first phase, actions were taken to improve sales and marketing, operations, team building and consolidation, cost control and the network's governance structure.



#### Results

A business plan was drawn up, which served as the basis for the subsequent implementation of a priority action agenda, including the creation of a sales department, training of the team and diversification of buyers. The support also established a process for determining a fair price for the seed marketed, which had previously been subsidised through non-refundable grants. Overall, the intervention reinforced a commercially-oriented approach in an operation that had previously relied on philanthropy.





#### Coopavam Parazil

The Vale do Amanhecer Farmers' Cooperative (COOPAVAM) processes Brazil nuts supplied by indigenous collectors and family farmers in northwestern Mato Grosso, one of the most deforested areas in Brazil, and in Rondônia. Its production of oil, flour and raw materials for food, cosmetics or medicines provides incomes for community members – including attracting a premium for its sustainable practices – while achieving a positive environmental impact. Production takes place in a legal reserve of more than 7000 hectares of protected forest, which extends to more than 1.5 million hectares protected in indigenous lands.

# Challenges and intervention planning

One of the main challenges for COOPAVAM was its commercial dependence on one large client, which made it necessary to expand the supply chain. In addition, a lack of working capital to finance the increase in production meant that the cooperative was unable to fully meet demand.

The programme's support began with a marketing and sales plan, establishing new contracts to access larger markets, including the export market. P4F also helped set up governance arrangements to strengthen the relationship between the cooperative and the indigenous territories in a fair and participatory way, with a focus on transparency in decision--making processes. New land management and protection plans have also been implemented, including training for communities to improve the nut harvesting process.



#### Results

With the implementation of the marketing and sales strategy, Coopavam celebrated its first shipment of Brazil nuts for export at prices above the domestic market in 2020. The cooperative has also signed an annual supply contract with the Swiss company Gebana. The company also successfully crowdfunded over 800,000 Brazilian reais, equivalent to over £108,000 with partner Sitawi for working capital to finance the Brazil nut harvest. The expansion of buyers in Brazil has given the company greater autonomy, while support for the Territorial and Economic Management Plans for indigenous lands has strengthened the socio-economic governance of the territories, promoting a fairer and more participatory trading relationship.





## Naidiseros del Pacifico SAS <sup>©</sup>Colombia

Naidiseros del Pacifico S.A.S. works with açaí palm on Colombia's Pacific coast. This is a region that is biodiverse with great potential of non-timber forest products, a regulatory framework designed to simplify and unify the licensing of non-timber forest products (NTFP) with environmental authorities. However, the region also has one of the highest rates of deforestation in the country. The project, which involves collecting and processing açaí fruit, began in 2016 in response to the growing demand for açaí (or naidi, as it is known in the region) and to provide a sustainable alternative to chains that cause deforestation. The company has established a partnership with the NGO Fondo Accíon and a governance structure made up of community councils.

# Challenges and intervention planning

The company had poor market access and other barriers to business typical of remote regions, such as transport and communication difficulties and a lack of management tools. Naidiseros approached P4F in the early stage of the initiative when the company still lacked financial stability and relied on donations to maintain its operations.

P4F supported product positioning and the identification and diversification of buyers. The expansion and consolidation of the business was based on operational and commercial improvements, including the reduction of operating costs and the launch of a new marketing and sales division. The support also developed the company's sustainable commercial operations through new forest protection and management strategies, and the establishment of new inspection protocols and good management practices.



#### Results

The first phase of the project resulted in the implementation of a best practice plan for managing açaí production and an in-depth assessment of Naidiseros's operations and logistics. New market links were established with potential buyers of açaí in Colombia, and the company's marketing capabilities were developed. Following Decree 690, Naidiseros was one of the first companies to have its harvesting permit approved, highlighting the improved efficiency of the local environmental authority as a result of the new regulations. Approval in 2022 guaranteed an increase in açaí production and sales, with 58,000 hectares of forest under sustainable management.





#### Planeta SAS © Colombia

Planeta S.A.S. is a Colombian company that processes and sells palm hearts and açaí and is created and run by the community. Local people, as well as collector and producer associations, are on the board and in management positions. The company buys from growers at above-market prices, rewarding them for meeting environmental and social commitments, and processes the fruit into products that can be marketed. Since 2018, Planeta has grown through its contract with the restaurant chain Crepes & Waffles, which buys around 15 per cent of its production at a premium of 60 per cent above the market as a reward for sustainable practices.

# Challenges and intervention planning

Planeta's biggest challenge was its dependence on the Crepes & Waffles partnership. The amount offered by the restaurant chain was made possible through an agreement with the World Wide Fund for Nature (WWF), who subsidised the sales. Despite a stable forecast, the subsidisation meant it was not a purely commercial partnership, suggesting the need to expand buyers. In order to maintain the company's financial and environmental health, it was necessary to reduce production costs.

The programme provided support for commercial expansion, product and process Improvement, cost reduction through product and process improvement, customer diversification, and increased environmental commitment. P4F also worked to promote the commercialisation of açaí pulp.



#### Results

The partnership with P4F has supported the expansion of the customer portfolio, granting over £78,000 in revenues, the renewal of harvesting licences, covering 29,300 hectares, the company's compliance with zero deforestation agreements in partner chains and in its own production, and the installation of a cost-reduction infrastructure.



#### Veja Shoes Parazil

Founded in 2003, Veja Shoes aims to produce the most sustainable trainers in the world. The company uses agro-ecological cotton from northeastern Brazil and Peru, leather from Rio Grande do Sul and Uruguay, and rubber from the Amazon – specifically from the Chico Mendes Extractive Reserve in Acre. The company's model was a success, and today the shoes (marketed in Brazil under the name Vert) are available in more than 60 countries. By 2021, the company had bought one thousand tonnes of wild rubber from around 500 producers. Veja's operating model is based on the concepts of fair trade and sustainability and includes offering above-market prices to producers who follow deforestation-free protocols.

# Challenges and intervention planning

Scaling up production was the main issue facing Veja – a large, structured company with equally large growth projections, but facing rubber supply problems. Supply chains therefore needed to be scaled and better structured, mainly by creating incentives to discourage extractive industries workers from moving to other chains. The company turned to P4F to structure the chain and ensure its sustainability through agreements with cooperatives and inclusive governance planning.

P4F's support aimed to increase the number of rubber tappers involved through an agreement with eight new cooperatives (expanding operations from 69 tonnes in 2018 to 530 tonnes in 2021), including a zero-deforestation protocol, with the offer of above-market prices as an incentive. The support also established a deforestation monitoring system, trained communities to adopt sustainable harves-



Access to the market

management

ngthened

governance

ting protocols and generate additional value and raised awareness of gender issues in production chains by valuing women's work.

#### Results

Veja's purchases and payments for socio-environmental services (PSSA) increased producers' income by 71 per cent. The strengthening of the chain has utilised the management tools of the Chico Mendes RESEX as a whole, through the implementation of socio-environmental protocols. The company has strengthened a sustainable rubber chain and expanded forest protection, demonstrating that supplying native rubber at premium prices is a profitable alternative to other less sustainable value chains, such as livestock.





#### Amarumayu Peru

Grupo AJE (also known as the AJE Group), one of the world's largest multinational beverage companies, launched Amarumayu, a brand focused on sustainable products, based on a commitment to the Peruvian Ministry of the Environment to protect forests. Camu-camu and buriti (or aguaje in Spanish) are Amazonian fruits considered superfoods, and the company has created new juices, based on the sustainable harvesting and processing of these fruits, that provide income for indigenous communities and protection for the forests.

# Challenges and intervention planning

The AJE Group has successfully implemented an initial pilot project in eight municipalities in the Loreto region. As demand grew, Amarumayu needed to expand the scale of its fruit and beverage production without compromising the social and environmental commitments on which the brand is based.

P4F's support aimed to train communities in fruit processing and marketing, improve production capacity and strengthen community governance. The aim of the support was to develop a sustainable value chain, to be extended to Colombia and Ecuador, as well as a tracking system to ensure the sustainability of Amarumayu's production.

#### Results

Following the partnership, the company has expanded production to 22 communities, surpassed the 272,000-hectare mark for land brought to sustainable management, and mobilised around  $\pm$ 1.2 million of private sector finance by 2023. Photo: Project's archieve / Amarumayu







## Making non-timber forest products viable Colombia

In 2016, with the agreement that ended the civil war over Colombia's forests, the sustainable use of land became central to the country's rural development policy. In an effort to make it easier for entrepreneurs and new businesses to operate in the non-timber forest products (NTFP) market, a regulatory framework was established to simplify and unify licensing with environmental authorities. The process resulted in Decree 690 of 2021, which involved the participation of the community and considered the needs of local stakeholders and scientific guidelines for the management of ecosystems and species.

# Challenges and intervention planning

Prior to the decree, the licensing process for NTFP management in Colombia was disorganised and decentralised. This made it time-consuming and complicated for the authorities to issue licences, and difficult for companies to operate – often leading them to engage in illegal activities.

P4F's support was based on active consultation with stakeholders to propose technical and legal aspects of the new decree, thus promoting a new functional regulation and a fair distribution of benefits. As part of an initiative to create favourable conditions for the affected ecosystem, the programme facilitated the elaboration of protocols to guide the management of the species and train environmental authorities – in turn, speeding up the issuing of permits.



#### Results

The decree established general and uniform rules for the exploitation of NTFPs at national level, including the granting of licences, responsibility for each aspect of regulation and costs. The regulations have made it easier for entrepreneurs and environmental authorities to set up new businesses and to regulate and control their activities.





## Exporting Baru Nuts Parazil

A key product of the Brazilian Cerrado, baru is an edible nut that has contributed to the protection of this threatened ecosystem. Baru nut production employs around 16,000 people in the region and can be used in agroforestry and silvopastoral systems to restore degraded land and reduce deforestation caused by the expansion of crops such as soya and cattle. One of the ways identified to expand sustainable nut production was to exploit its export potential, particularly to the EU and UK markets.

# Challenges and intervention planning

In order to expand the market and export the nut, formal licences and registrations had to be obtained so that it could be recognised as a food by the regulatory bodies of the EU and UK markets.

The support gathered and analysed information on the baru nut's composition, production processes and history of continuous use as a food in Brazil. P4F supported the development of dossiers to be submitted to the European Food Safety Authority (EFSA) and the UK Food Standards Agency (FSA) for approval and provided support to answer technical or scientific questions related to the dossiers. The programme created the conditions for the impact ecosystem.



#### Results

The project is ongoing and is estimated to conclude the registration process by 2024. As an expected result, P4F can open up a potential market worth millions of dollars for baru, considering its status as a superfood. Unlocking this market can bring income and protection to the communities that collect the nuts, including indigenous communities. It can also discourage future deforestation by providing a profitable and sustainable alternative to other degrading productions for one of the continent's most threatened biomes.

# Restoration

Access to suppliers



#### Seed's Paths Parazil

Caminhos da Semente, Seed's Paths, is a network developed to promote forest restoration in Brazil using the direct seeding method, in which different species of seeds are mixed and planted directly into the ground. It's a fast, low-cost technique that has a greater positive impact on the environment, boosts seed collection activities (particularly in the case of the Xingu Seeds Network), and increases the income of indigenous groups, producers, and traditional communities. The initiative is not a business, but provides a framework for other chains, with the technical and financial support of P4F, based on a strategic action plan drawn up with more than 250 stakeholders from 160 organisations in the private and public sectors.

# Challenges and intervention planning

The initiative responds to the growing demand for forest restoration, given the requirement for landowners to restore up to 19 million hectares under the new Forest Code (Law for the Protection of Native Vegetation 12,651/12) and Brazil's commitment under the Paris Agreement to restore 12 million hectares of forest by 2030. Despite its benefits, direct seeding is still largely unknown, and challenges include the cost for small-scale producers, the lack of skilled labour and technical support, and the scarcity of seeds as a raw material.

P4F support provided technical and financial assistance to expand the use of direct seeding. The Strategic Action Plan has increased the number of technicians able to implement its use, promote new planting, offer specialist support, pro-



vide seeds, and link collectors to customers. The plan also aimed to remove legal bottlenecks and disseminate knowledge to attract new partners.

#### Results

By 2023, Caminhos da Semente reached more than 150 restoration sites. A total of 2,200 hectares have been implemented since 2019, based on a greater adoption of the direct seeding method, through a network of service providers able to offer technical assistance and by linking seeds networks with technical and commercial assistance.



## Cocoa Agroforestry Parzil

efficiency

management

suppliers

The Cocoa Agroforestry Systems Restoration project uses cocoa production in agroforestry systems as an alternative to expanding cattle ranching in the state of Pará. To encourage the growth of cocoa systems, partner organisation TNC (The Nature Conservancy) has formed partnerships with chocolate company Mondelēz International, cocoa processor Olam Food Ingredients (OFI) and technical assistance provider Coordenada Rural.

# Challenges and intervention planning

One of the main challenges faced by the project was the lack of technical assistance to create financial mechanisms that would allow capital to be directed towards the implementation of the systems. Such mechanisms would enable stakeholders respond to the demand for cocoa without compromising socio-environmental commitments.

P4F's support was based on the development of a technical assistance platform for sustainable cocoa production, the promotion of zero deforestation commitments among smallholders, the improvement of land use practices, and the establishment of 598 new hectares of cocoa in agroforestry systems. P4F also helped small producers comply with environmental legislation by mobilising local banks to assess the feasibility of agroforestry projects and encouraging them to prepare loan proposals. The strategy also aimed to increase women's participation in property management by 30 per cent.



dovernance

#### Results

P4F supported the development of a platform to provide technical assistance in implementing the mechanisms, which helped to restore degraded land and provide access to credit. The support led to an alignment of interests along the chain, with producers, technical assistance and chocolate companies linked in an integrated supply system. This approach led to OFI offering its technical assistance to producers, training for Coordenada Rural staff to offer project preparation services for public credit, and Mondelēz offering a premium price to producers, better channelling capital and technical capacity along the chain.



## ecohome Ecohome **Q** Colombia

A pioneer in the development of cleaning products with natural, plant-based ingredients, the Colombian company Ecohome has over a decade of socio-environmental commitment. The base ingredient for their products is Sapindus saponaria, known in Brazil as ibaró and in Colombia as chumbimbo, whose fruits release saponaceous substances and surfactants that can replace the polluting ingredients in traditional soap. The company has developed an extensive cultivation, harvesting and conservation network to promote restoration using sapindus saponaria as a sustainable income alternative for rural communities.

#### **Challenges and intervention** planning

Given the growing demand for eco-friendly cleaning products, P4F's support focused on positioning the product in the market and developing a new production model based on sustainable production arrangements for agroforestry systems in areas characterised by monocultures, mining, and livestock farming.

The first phase of support consisted of expanding partners, developing, and testing agroforestry models using sapindus saponaria, and strengthening the business plan to expand the market and productivity. P4F helped to develop low-cost models for the extraction of biosurfactants and a sustainable alliance of public and private sector stakeholders for ecosystem restoration in the Antioquia region. In the second phase, the programme signed agreements with more than 100 rural landowners for the propagation of more than 100,000 trees, carried out research to determine the characteristics of the tree, and developed manuals for the propagation and cultivation of its tree.



#### **Results**

Ecohome is working with more than 100 small producers to restore degraded land through regenerative silvopastoral and agroforestry systems using Sapindus saponaria. The partnership led to the establishment of demonstration units to develop and test cultivation methods, where the company developed six pilot projects on over 20 hectares of forest, covering a total area of over 1,400 hectares under sustainable management. The project is expected to involve 2,800 hectares of agroforestry systems by 2030 and conservation agreements that could reach up to 10,000 hectares by 2026.



ecoflora Ecoflora **Q** Colombia

Founded in 1988, Ecoflora is a Colombian company that found in the genipapo (genipa americana), jagua in Spanish, the solution for the development of the first blue colourant of natural origin. The colour, called Jagua Blue, is extracted using a process developed and patented by the company. The fruit was sourced from private farms in the Antioquia region of north-west Colombia through informal arrangements. The recent approval of the dye for human consumption by the Food and Drug Administration (FDA), a US government agency, meant that its potential market expanded, necessitating a proportional increase in production capacity.

#### **Challenges and intervention** planning

Ecoflora did not have a structured jagua supply network, nor the technical and legal capacity to present the dossier to the FDA. P4F's support was aimed at improving the supply chain to enable the company to expand its production scale without compromising its social and environmental commitments, thereby creating positive economic, environmental, and social impacts for the region.

The support began with harvesting and conservation agreements with more than 90 rural properties that supply jenipapo. The agreements were based on a process of inventorying trees, obtaining licences for collection, assessing the viability of silvopastoral systems using the tree, and regulatory advances to speed up licences for consumption of the dye. P4F's support also aimed to increase the value of the fruit by utilising the waste as fertilizer and other uses, providing a further income for the suppliers and a higher profit margin for the company. The company has also offered, together with the environmental authority of the jurisdiction of Antioquia (CORNARE) and the Mas Bosques Programme, payments for environmental services (PES). with suppliers who have committed to zero deforestation.



#### Results

Ecoflora has created a more robust and sustainable chain by signing 93 conservation agreements with suppliers and mobilising more than £2.9 million through investors. A new long-term business plan has encouraged 73 suppliers to join the project to protect genipapos and surrounding ecosystems, bringing more than 4,000 hectares under sustainable management, with plans to increase this number with FDA's approval on March, 2023.



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#### Form International Peru

Photo: Project's archieve

One of the most diverse and forested countries on the planet, Peru is facing an alarming rate of deforestation – while also being dependent on timber imported from other countries. As such, an opportunity exists to enhance land use and degraded lands restoration, which can also bring the country closer to commercial self-sufficiency in this market. Dutch company Form International has set a goal of meeting the national demand for timber. It aims to do this through a tree planting project for sustainable cultivation and restoration, creating a value chain to meet the demand of the domestic market.

# Challenges and intervention planning

In a landscape with reduced timber traceability, the challenge was to supply at least part of Peru's demand for timber while maintaining a commitment to environmental sustainability. Located in the Pucallpa/Campo Verde, a region where agriculture, mining and illegal logging are prevalent, the project offers profitable and sustainable alternatives to these chains.

In the first part of its support, P4F carried out a comprehensive analysis to determine the viability of the project, the demand for timber in Peru, and the potential for the industry to operate. In the second phase, the support helped restore 105 hectares with fast-growing tree plantations piloting the business model.



#### Results

The main outcomes to date have been the determination of the viability of the business and laying the foundations for Form International's operations in Peru, based on a sustainable timber production model, achieving 70 hectares of native trees in the pilot. As a type of enterprise that takes significant time to commercialise, impact indicators are still in their infancy.

# Valorisation of the standing forest & Restoration





## Amapuri/Corpocampo © Colombia

Founded by farmers in a region of the Colombian Amazon where deforestation is rife, Amapuri (Corpocampo© commercial branch) extracts and produces heart of palm and is the country's market leader in açaí production. The company works with more than 1300 families in its sustainable chain, covering 72% of the domestic market and 73% of açaí exports. The alliance with smallholders has helped it contribute to the mitigation of deforestation and climate change, as well as to the socio-economic development of vulnerable populations in the region.

# Challenges and intervention planning

Amapuri had secured a large share of the açaí market in Colombia, but demand exceeded the company's production capacity. To increase production, the company needed to expand its supply network and test new models, as well as update legislation and environmental commitments to attract investors and increase operational capacity.

P4F's support helped Amapuri expand its network of suppliers, collection areas and açaí production using agroforestry systems. P4F and Amapuri developed new forest management plans in the collection areas and established a structure to provide technical assistance and agricultural inputs to suppliers, ensuring the operational sustainability of the initiative.



#### Results

The partnership with P4F has restructured the company and its production network, protected 3,000 hectares of forest, established 990 hectares of agroforestry systems in five communities, and underpinned a long-term purchasing contract that ensures sustainability commitments with producers. In 2022, the company processed 180 tons of açaí. In addition to partnerships with Afro-Colombian and indigenous communities, the project counts some 80 ex-combatants among its beneficiaries.





#### Priority Programme for the Bioeconomy (PPBio) Prazil

The Priority Programme for Bioeconomy (PPBio) collects mandatory contributions from companies in the Manaus Industrial Hub (PIM) in order to invest in new companies, products and services, and to strengthen bioeconomy production chains. PPBio, which also operates in the Western Amazon and Amapá as an enabling environment initiative, is a public policy developed by the Superintendency of the Manaus Duty-Free Zone (SUFRAMA) and coordinated by the Institute of Conservation and Sustainable Development of The Amazon (IDESAM). PPBio began with a group of more than 300 projects and aimed to develop an innovative enabling environment, engaging the community in an ecosystem capable of generating work and development.

# Challenges and intervention planning

The Manaus Duty-Free Zone Tax Incentive Law earmarks a percentage of the funds collected for investment in research and development (R&D) in several areas, including the bioeconomy. The challenge was to make use of existing legislation to better direct capital towards innovation in the bioeconomy.

P4F worked with IDESAM on a model for incubating a portfolio of bio-businesses. The project supported the development of a robust communications strategy to promote PPBio and increase the programme's fundraising.



#### Results

The support helped to publicise the workings of the tax incentive scheme and to align the interests of developers and financiers, with PPBio as the operator. Since 2019, the programme has mobilised more than 30 million Brazilian reais, equivalent to £4.7 million, from 24 companies to support 26 projects linked to universities, technology institutes, and start-ups. This resulted in a total contribution of 125 million Brazilian reais, approximately £19.8 million, distributed between 19 ongoing and 18 completed initiatives. PPBio is one of the largest initiatives to mobilise private resources in the programme and has the potential to reach an annual investment of around 1 billion Brazilian reais, equivalent to £158.7 million.

#### **Concluding comments**

The P4F project portfolio illustrates some of the many ways in which the bioeconomy can support socio-economic development, conservation, and forest restoration.

#### Companies in the standing forest sector of the Forest Transition Curve showed the greatest need for support in the areas of business management, market access and strengthened governance.

This demand can be explained by the fact that companies are growing and therefore need to expand their management capacity and look for new markets. In addition, many of the companies have local communities and indigenous peoples at the heart of their management, as is the case with Naidiseros del Pacifico SAS, Coopavam and Xingu Seeds Network. This explains the support needed to structure and strengthen collective governance, made up of representatives from different local communities.

Companies working in the restoration sector of the Forest Transition Curve showed a greater need for support in the areas of business management, supplier access, production efficiency and research and development.

This demand can be explained by the need for companies to work on improving production at the beginning of the chain, expanding the scale of operations with access to new suppliers and increasing production efficiency. In the restoration sector, companies are also looking for innovation throughout the chain: making forest harvesting techniques for efficient and sustainable at the beginning of the chain and creating new products and opening up new markets at the end of the chain.

P4F's projects and initiatives demonstrate the great potential of impact businesses in the bioeconomy for mitigating climate change, protecting and restoring ecosystems, and promoting the well-being of forest communities.

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To achieve these outcomes, we recommend that the following points be considered for potential investments from donors and the international cooperation in the agenda:



Identify the main bottlenecks in the production chain, and based on this analysis, tailor interventions to overcome key challenges and unlock growth opportunities. Such interventions include market access strategies that recognise the value of socio-biodiversity, strengthened local governance with more participatory and transparent practices, technical assistance to producers to improve product quality and access to capital to improve productivity and expand production;



Target investment at the right moments in companies' commercial maturity journey, from the pilot stage of the company to test the business plan, to its scaling stage of operations and commercial expansion;



Provide non-repayable or concessional resources for the establishment of robust blended finance mechanisms that support impact businesses related to land use. Blended finance solves the problem of no single source of non-repayable grant funding having the necessary capital to cover all business needs. The inflow of resources, previously hampered by market uncertainties, will be facilitated if international cooperation assumes some market risks by being more patient with returns on capital or results;



Adding value to the production process with appropriate benefit sharing along the chain, with the aim of promoting inclusive and sustainable socio-economic development for the most vulnerable links in the chain, such as indigenous peoples and local communities;



**Promoting enabling conditions in the impact ecosystem,** such as legal frameworks that make the commercialisation of NTFPs viable, opening up the export market for new socio-biodiversity products, capital access for impact enterprises, and incentives for more sustainable planting techniques such as direct seeding.

Photo:Fred Rahal

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